



**AIR EMISSION PERMIT NO. 13700062- 003**  
**Total Facility Operating Permit - Reissuance**

**IS ISSUED TO**

ArcelorMittal

**ARCELORMITTAL MINORCA MINE INC**

5950 Old Highway 53 North  
Virginia, St. Louis County, MN 55792

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

This permit reissuance supersedes Air Emission Permit No. 13700062- 002, and authorizes the Permittee to operate the stationary source at the address listed above unless otherwise noted in Table A. The Permittee must comply with all the conditions of the permit. Any changes or modifications to the stationary source must be performed in compliance with Minn. R. 7007.1150 to 7007.1500. Terms used in the permit are as defined in the state air pollution control rules unless the term is explicitly defined in the permit.

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:** Federal; Pt 70/Major for NSR;

**Operating Permit Issue Date:** March 18, 2011

**Expiration Date:** March 18, 2016

– All Title I Conditions do not expire.

A handwritten signature in black ink, appearing to read "Don Smith", written over a horizontal line.

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

for Paul Aasen  
Commissioner  
Minnesota Pollution Control Agency

## **Permit Applications Table**

<b>Permit Type</b>	<b>Application Date</b>	<b>Permit Action</b>
Total Facility Operating Permit	January 17, 1995	001
Minor Amendment	April 03, 2006	002
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**NOTICE TO THE PERMITTEE:**

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

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

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

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

**PERMIT SHIELD:**

Subject to the limitations in Minn. R. 7007.1800, compliance with the conditions of this permit shall be deemed compliance with the specific provision of the applicable requirement identified in the permit as the basis of each condition. Subject to the limitations of Minn. R. 7007.1800 and 7017.0100, subp. 2, notwithstanding the conditions of this permit specifying compliance practices for applicable requirements, any person (including the Permittee) may also use other credible evidence to establish compliance or noncompliance with applicable requirements.

## **FACILITY DESCRIPTION:**

ArcelorMittal Minorca Mine Inc. (Minorca) is the owner and operator of a taconite (magnetite) ore mining and pellet production plant on the north side of Virginia, Minnesota. Minorca's mine and pellet production plant are located in St. Louis County. The existing facility is classified as a major emission source with respect to the federal PSD program. The facility is also a major source of Hazardous Air Pollutants (HAPs) as potential emissions of HAPs exceed the major source thresholds of 10 tons per year (tpy) for any individual HAP and 25 tpy of total HAPs.

The facility was originally owned by Inland Steel Mining Company, which started development of the plant site and the Minorca pit in 1974, with the first shipment of pellets made in June 1977. The Minorca pit is located approximately 1 mile south of the plant site. In 1993, the company opened a new ore body called the Laurentian Mine near Gilbert, Minnesota, about 6 ½ miles from its production facilities.

In 1998, Inland Steel and Minorca Mine were purchased by Ispat International and renamed Ispat Inland Incorporated. In 2006, the company became Mittal Steel. Finally, in 2007, the merger between Mittal Steel with Arcelor formed ArcelorMittal and the facility was renamed ArcelorMittal Minorca Mine Inc.

In 2007, ArcelorMittal began mining the East Reserve between McKinley and Biwabik, Minnesota, about seven miles from the plant site.

The crusher facility and pellet production plant consists of a course crusher, secondary crushers, and tertiary crushers to produce fine ore. The fine ore from the crushers is further processed in the concentrator which includes a rod mill to grind the ore, a cobber to provide initial magnetic separation of the iron, a ball mill to further grind the ore, a rougher to provide a second stage of magnetic separation, and a flotation separator to further concentrate the iron. The concentrated iron ore (concentrate) is dewatered and blended with flux (limestone and dolomite as prepared at the facility fluxstone grinding plant) and binder (bentonite) and rolled into marble size green balls on the balling discs. The amount of flux and binder blended with the concentrate depends on whether the facility is producing flux pellets or standard / acid (low-flux) pellets. The green balls are dried and heat hardened in the straight grate indurating furnace in six carefully controlled heating and cooling zones to form taconite pellets. The primary fuel for the indurating furnace is provided by natural gas with and fuel oil as an alternative in the main gas chambers. The finished pellets are shipped from the facility by rail through the Great Lakes system to blast furnaces in the lower Great Lakes and made into a variety of steel products.

The facility is capable of producing up to approximately 3,200,000 million long tons (LT) of finished pellets per year. Steel demand, product type, and product quality drive the level of Minorca's annual pellet production. By convention, Minorca reports long tons (1 long ton = 2240 pounds) of production. Long tons are multiplied by a factor of 1.12 and reported as short tons for air quality permitting purposes.

To produce approximately 3,200,000 million LT of pellets, approximately 9,600,000 million LT of taconite ore must be processed. The current weight recovery (percentage of concentrate recovered to taconite ore) is in the approximate range of 28-30 percent. Stripping (including the

overburden, the rock, and the low-grade taconite that cannot be economically processed) must be performed prior to hauling the taconite ore. "All-material" includes the total taconite ore removed and stripping tons. During the period of estimated mine life, Minorca averaged nearly 18 million LT of all material per year.

There are three main areas where emissions are emitted: the mine, the tailings basin and the pellet plant. Emissions from the mine are fugitive emissions created from blasting, coarse ore loading and unloading, overburden loading and unloading and haul truck traffic on unpaved roads and are primarily particulate matter. Emissions from the tailings basin are fugitive emissions created by tailing basin dike construction, truck traffic on unpaved roads and wind erosion of exposed tailings beaches and are primarily particulate matter. Emissions from the pellet plant consist of point source emissions from crushing, concentrating, and agglomerating operations which primarily create particulate matter emissions. The indurating furnace emits particulate matter, SO<sub>2</sub>, NO<sub>x</sub>, CO and other pollutants such as HAP<sub>s</sub>. HAPs emissions tend to be metals and products of combustion. Fugitive emissions from the pellet plant are from pellet loadout and wind erosion of fine particles from the pellet storage piles and are particulate matter. The facility uses a variety of bag houses and wet scrubbers to control emissions from the point sources located in the pellet plant. Water and chemical dust suppressants are applied to haul roads and other fugitive sources to reduce particulate emissions when weather permits.

**Minor Permit Action 002:**

This permit action authorized the opening of East Reserve mine.

**TABLE A: LIMITS AND OTHER REQUIREMENTS**

Facility Name: ArcelorMittal Minorca Mine Inc  
 Permit Number: 13700062 - 003

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

**Subject Item: Total Facility**

What to do	Why to do it
SOURCE-SPECIFIC REQUIREMENTS	hdr
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
Comply with Fugitive Dust Control Plan: The Permittee shall follow the actions and recordkeeping specified in the control plan. The plan may be amended by the Permittee with the Commissioner's approval. If the Commissioner determines the Permittee is out of compliance with Minn. R. 7011.0150 or the Fugitive Dust Control Plan, then the Permittee may be required to amend the control plan and/or to install and operate particulate matter ambient monitors as requested by the Commissioner.	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
NATIONAL EMISSION STANDARDS for HAZARDOUS AIR POLLUTANTS: TACONITE ORE PROCESSING (40 CFR Part 63 Subpart RRRRR, commonly referred to as the Taconite MACT Requirements)	hdr
Comply with Subpart RRRRR - National Emission Standards for Hazardous Air Pollutants: Taconite Iron Ore Processing: (a) for an existing affected source, comply with each emission limitation, work practice standard, and operation and maintenance requirement that applies to the source no later than October 30, 2006; (b) for a new affected source with an initial startup date on or before October 30, 2003, comply with each emission limitation, work practice standard, and operation and maintenance requirement that applies to the source by October 30, 2003, (c) for a new affected source with an initial startup date after October 30, 2003, comply with each emission limitation, work practice standard, and operation and maintenance requirement that applies to the source upon initial startup.  (continued below)	40 CFR Section 63.9580 to 63.9652; Tables to 40 CFR Part 63 Subpart RRRRR; 40 CFR Part 63 subp. A and Minn. R. 7011.7000  (continued below)
(continued from above)  Also comply with applicable requirement of 40 CFR Part 63, General Provisions.  Additional information regarding compliance with Subpart RRRRR is presented in GP 015, GP 016, GP 017, and the various groups and emission units to which this standard applies (including GP001-004, GP006-009, GP011-014, EU001-017, and EU021-32).	(continued from above)
The fugitive control plan shall also contain requirements for compliance with the fugitive emission standards in 40 CFR Part 63 Subpart RRRRR for emissions from stockpiles, material transfer points, plant roadways, tailings basin, pellet loading areas, and yard areas. Additional information regarding compliance with the fugitive emissions requirements of Subpart RRRRR is presented in GP 015.	40 CFR Section 63.9591; 40 CFR Section 63.9635
DETERMINING IF A PROJECT/MODIFICATION IS SUBJECT TO NSR	hdr
These requirements apply if a reasonable possibility (RP) as defined in 40 CFR Section 52.21(r)(6)(vi) exists that a proposed project, analyzed using the actual-to-projected-actual (ATPA) test (either by itself or as part of the hybrid test at Section 52.21(a)(2)(iv)(f)) and found to not be part of a major modification, may result in a significant emissions increase (SEI). If the ATPA test is not used for the project, or if there is no RP that the proposed project could result in a SEI, these requirements do not apply to that project. The Permittee is only subject to the Preconstruction Documentation requirement for a project where a RP occurs only within the meaning of Section 52.2(r)(6)(vi)(a).  Even though a particular modification is not subject to New Source Review (NSR), or where there isn't a RP that a proposed project could result in a SEI, a permit amendment, recordkeeping, or notification may still be required by Minn. R. 7007.1150 - 7007.1500.	Title I Condition: 40 CFR Section 52.21(r)(6); Minn. R. 7007.3000; Minn. R. 7007.0800, subp. 2

**TABLE A: LIMITS AND OTHER REQUIREMENTS**

Facility Name: ArcelorMittal Minorca Mine Inc  
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<p>Preconstruction Documentation -- Before beginning actual construction on a project, the Permittee shall document the following:</p> <ol style="list-style-type: none"> <li>1. Project description</li> <li>2. Identification of any emission unit (EU) whose emissions of an NSR pollutant could be affected</li> <li>3. Pre-change potential emissions of any affected existing EU, and the projected post-change potential emissions of any affected existing or new EU.</li> <li>4. A description of the applicability test used to determine that the project is not a major modification for any regulated NSR pollutant, including the baseline actual emissions, the projected actual emissions, the amount of emissions excluded due to increases not associated with the modification and that the EU could have accommodated during the baseline period, an explanation of why the amounts were excluded, and any creditable contemporaneous increases and decreases that were considered in the determination.</li> </ol> <p>The Permittee shall maintain records of this documentation.</p>	<p>Title I Condition: 40 CFR Section 52.21(r)(6); Minn. R. 7007.3000; Minn. R. 7007.1200, subp. 4; Minn. R. 7007.0800, subps. 4 &amp; 5</p>
<p>The Permittee shall monitor the actual emissions of any regulated NSR pollutant that could increase as a result of the project and that were analyzed using the ATPA test, and the potential emissions of any regulated NSR pollutant that could increase as a result of the project and that were analyzed using potential emissions in the hybrid test. The Permittee shall calculate and maintain a record of the sum of the actual and potential (if the hybrid test was used in the analysis) emissions of the regulated pollutant, in tons per year on a calendar year basis, for a period of 5 years following resumption of regular operations after the change, or for a period of 10 years following resumption of regular operations after the change if the project increases the design capacity of or potential to emit of any unit associated with the project.</p>	<p>Title I Condition: 40 CFR Section 52.21(r)(6); Minn. R. 7007.3000; Minn. R. 7007.0800, subps. 4 &amp; 5</p>
<p>The Permittee must submit a report to the Agency if the annual summed (actual, plus potential if used in hybrid test) emissions differ from the preconstruction projection and exceed the baseline actual emissions by a significant amount as listed at 40 CFR Section 52.21(b)(23). Such report shall be submitted to the Agency within 60 days after the end of the year in which the exceedances occur. The report shall contain:</p> <ol style="list-style-type: none"> <li>a. The name and ID number of the facility, and the name and telephone number of the facility contact person</li> <li>b. The annual emissions (actual, plus potential if any part of the project was analyzed using the hybrid test) for each pollutant for which the preconstruction projection and significant emissions increase are exceeded.</li> <li>c. Any other information, such as an explanation as to why the summed emissions differ from the preconstruction projection.</li> </ol>	<p>Title I Condition: 40 CFR Section 52.21(r)(6); Minn. R. 7007.3000; Minn. R. 7007.0800, subps. 4 &amp; 5</p>
<p><b>OPERATIONAL REQUIREMENTS</b></p>	<p>hdr</p>
<p>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.</p>	<p>40 CFR pt. 50; Minn. Stat. Section 116.07, subds. 4a &amp; 9; Minn. R. 7007.0100, subp. 7(A), 7(L), &amp; 7(M); Minn. R. 7007.0800, subps. 1, 2 &amp; 4; Minn. R. 7009.0010-7009.0080</p>
<p>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.</p>	<p>Minn. R. 7011.0020</p>
<p>Air Pollution Control Equipment: Operate all pollution control equipment whenever the corresponding process equipment and emission units are operated, unless otherwise noted in Table A.</p>	<p>Minn. R. 7007.0800, subp. 2; Minn. R. 7007.0800, subp. 16(J)</p>
<p>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 &amp; 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. (continued below)</p>	<p>Minn. R. 7007.0800, subps. 14 and 16(J), 40 CFR Section 63.9636(b) (continued below)</p>
<p>(continued from above)                  Operation and Maintenance Plan:                   Update the O &amp; M Plan as necessary to include: 1) a description of the monitoring device; 2) test results which demonstrate compliance; 3) appropriate operating parameters demonstrating compliance (these are specified under "Pollution Control Equipment Limits" in this permit at Group Level); 4) procedures for demonstrating initial and continuous compliance with the corresponding limits.</p>	<p>(continued from above) Minn. R. 7007.0800, subps. 14 and 16(J), 40 CFR Section 63.9636(b)</p>

**TABLE A: LIMITS AND OTHER REQUIREMENTS**

Facility Name: ArcelorMittal Minorca Mine Inc  
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Comply with the Operation and Maintenance Plan: Follow the actions and recordkeeping specified in the O & M Plan.	40 CFR Section 63.9600(b)(1); Minn. R. 7007.0800, subp. 4(D); Minn. R. 7007.0800, subp. 14; and Minn. R. 7007.0800, subp. 16(J)
Operation Changes: In any shutdown, breakdown, or deviation the Permittee shall immediately take all practical steps to modify operations to reduce the emission of any regulated air pollutant. The Commissioner may require feasible and practical modifications in the operation to reduce emissions of air pollutants. No emissions units that have an unreasonable shutdown or breakdown frequency of process or control equipment shall be permitted to operate.	Minn. R. 7019.1000, subp. 4
Fugitive Dust Emissions: Do not cause or permit the handling, use, transporting, or storage of any material in a manner which may allow avoidable amounts of particulate matter to become airborne. Comply with all other requirements listed in Minn. R. 7011.0150.	Minn. R. 7011.0150
Noise: The Permittee shall comply with the noise standards set forth in Minn. R. 7030.0010 to 7030.0080 at all times during the operation of any emission units. This is a state only requirement and is not enforceable by the EPA Administrator or citizens under the Clean Air Act.	Minn. R. 7030.0010 - 7030.0080
Inspections: The Permittee shall comply with the inspection procedures and requirements as found in Minn. R. 7007.0800, subp. 9(A).	Minn. R. 7007.0800, subp. 9(A)
The Permittee shall comply with the General Conditions listed in Minn. R. 7007.0800, subp. 16.	Minn. R. 7007.0800, subp. 16
PERFORMANCE TESTING	hdr
Performance Testing: Conduct all performance tests in accordance with Minn. R. ch. 7017 unless otherwise noted in Tables A, B, and/or C.	Minn. R. ch. 7017
Operating Conditions for Performance Testing:  A) Performance Tests: Performance testing for EU021-032 (GP006-009, GP014) and their associated control equipment and stacks shall be tested at a fired pellet production rate of greater than or equal to 340 long tons per hour.  B) The performance testing for EU001-020 (GP001-005, GP012-013) and their associated control equipment and stacks shall be tested at greater than or equal to 90% of the emission units rated capacity.  C) Performance tests conducted exclusively for compliance with the Taconite MACT standard can be conducted under normal operating conditions as allowed under 40 CFR Section 63.7(e)(1).  D) All other required performance tests shall be conducted at a minimum of 90% of the rated capacity of the emission unit. (continued below)	Minn. R. 7017.2025; 40 CFR Section 63.7(e)(1) (continued below)
(continued from above) If a performance test is conducted at less than the applicable minimum rate given above the Permittee shall be given the opportunity to retest within 90 days of the subject test before process limits can be applied as specified in Minn. R. 7017.2025, subpart 3.  Once a process limit has been applied the Permittee may at any time conduct a voluntary performance test at or above the applicable minimum rate in order to remove the process limit.	(continued from above) Minn. R. 7017.2025; 40 CFR Section 63.7(e)(1)
Performance Test Notifications and Submittals:  Performance Tests are due as outlined in Table A of the permit. See Table B for additional testing requirements.  Performance Test Notification (written): due 30 days before each Performance Test Performance Test Plan: due 30 days before each Performance Test Performance Test Pre-test Meeting: due 7 days before each Performance Test Performance Test Report: due 45 days after each Performance Test Performance Test Report - Microfiche Copy: due 105 days after each Performance Test  The Notification, Test Plan, and Test Report may be submitted in alternative format as allowed by Minn. R. 7017.2018.	Minn. R. 7017.2018; Minn. R. 7017.2030, subps. 1-4, Minn. R. 7017.2035, subps. 1-2
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, or a representative unit within the same test group as specified by the applicable requirement. The limit is final upon issuance of a permit amendment incorporating the change.	Minn. R. 7017.2025, subp. 3; Minn. R. 7017.2020; 40 CFR Section 63.9622(f)



**TABLE A: LIMITS AND OTHER REQUIREMENTS**

Facility Name: ArcelorMittal Minorca Mine Inc  
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<p>Verification of test results: The results of a performance test are not final until a complete report, as defined in part 7017.2035, subpart 3, is submitted and the commissioner gives written verification of the compliance status of the emission facility (in the Notice of Compliance letter). Upon verification of the test results, the duration of the compliance status that the performance test determines for the emission facility begins with the date of the performance test. Nothing in this subpart prevents the use of any evidence to establish the existence of a violation before the date of the performance test, or excuses noncompliance between the date of the performance test and the commissioner's written verification of it.</p>	<p>Minn. R. 7017.2020, subp. 4</p>
<p>Parametric operating limits will be reset based on the most recent performance test unless otherwise allowed by the MPCA or an applicable rule. This also applies to parametric operating limits set in accordance with the Taconite MACT.</p>	<p>Minn. R. 7007.0800, subp. 2</p>
<p><b>MONITORING REQUIREMENTS</b></p>	<p>hdr</p>
<p>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).</p>	<p>Minn. R. 7007.0800, subp. 4(D)</p>
<p>Operation of Monitoring Equipment: Unless otherwise noted in Tables A, B, and/or C, monitoring a process or control equipment connected to that process is not necessary during periods when the process is shutdown, or during checks of the monitoring systems, such as calibration checks and zero and span adjustments. If monitoring records are required, they should reflect any such periods of process shutdown or checks of the monitoring system.</p>	<p>Minn. R. 7007.0800, subp. 4(D)</p>
<p>Visible Emissions Training:                   The Permittee shall                   (1) maintain a plant employee on site that has been certified in EPA Method 9 within the past three years;                   or                   (2) employ an EPA Method 9 certified contractor.                   This person will train other plant employees to perform the daily visible emissions observations as detailed in the O &amp; M Plan and Fugitive Control Plan. If the Permittee installs Agency approved broken bag detectors on the control equipment required to have visible emissions observations done, the Permittee may use the broken bag detectors in place of the visible emissions observations and the Permittee is not required to implement 1) and 2) above.</p>	<p>Minn. R. 7007.0800, subp. 4(D) and Minn. R. 7007.0800, subp. 14 and Minn. R. 7007.0800, subp. 16(J)</p>
<p><b>MODELING REQUIREMENTS</b></p>	<p>hdr</p>
<p>Performance Test: due 540 days after Permit Issuance to measure PM2.5 emissions. The goal of this PM2.5 testing requirement will be to show concordance with assumed emission rates and to establish source specific PM2.5 emission factors. The testing schedules can be defined so that sources with only filterable PM2.5 can be tested first, and then the furnaces and other sources with condensable PM2.5 emissions. Stack Vents (SV) with a PM10 PTE to stack height ratio exceeding 0.30 (lbs/hr)/ft of stack height are to be included in this performance testing requirement.                   Once site-specific emission factors are established, the facility will be required to use these emission factors to generate site-specific PM2.5 emission data and to complete a modeling compliance demonstration for PM2.5 National Ambient Air Quality Standards. (see the modeling requirement below)</p>	<p>Minn. R. 7017.2020, subp. 1</p>
<p><b>RECORDKEEPING</b></p>	<p>hdr</p>
<p>Recordkeeping: Retain all records at the stationary source, unless otherwise specified within this permit or the applicable regulation, for a period of five (5) years from the date of monitoring, sample, measurement, or report. Records which must be retained at this location include all calibration and maintenance records, all original recordings for continuous monitoring instrumentation, and copies of all reports required by the permit. Records must conform to the requirements listed in Minn. R. 7007.0800, subp. 5(A).</p>	<p>Minn. R. 7007.0800, subp. 5(C)</p>
<p>Recordkeeping: Maintain records describing any insignificant modifications (as required by Minn. R. 7007.1250, subp. 3) or changes contravening permit terms (as required by Minn. R. 7007.1350, subp. 2), including records of the emissions resulting from those changes.</p>	<p>Minn. R. 7007.0800, subp. 5(B)</p>

**TABLE A: LIMITS AND OTHER REQUIREMENTS**

Facility Name: ArcelorMittal Minorca Mine Inc  
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<p>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 expiring permits, these records shall be kept for a period of five years from the date the change was made or until permit reissuance, whichever is longer. The records shall be kept at the stationary source for the current calendar year of operation and may be kept at the stationary source or office of the stationary source for all other years. The records may be maintained in either electronic or paper format.</p>	<p>Minn. R. 7007.1200, subp. 4</p>
<p>REPORTING/SUBMITTALS</p>	<p>hdr</p>
<p>Shutdown Notifications: Notify the Commissioner at least 24 hours in advance of a planned shutdown of any control equipment or process equipment if the shutdown would cause any increase in the emissions of any regulated air pollutant. If the owner or operator does not have advance knowledge of the shutdown, notification shall be made to the Commissioner as soon as possible after the shutdown. However, notification is not required in the circumstances outlined in Items A, B and C of Minn. R. 7019.1000, subp. 3.</p> <p>At the time of notification, the owner or operator shall inform the Commissioner of the cause of the shutdown and the estimated duration. The owner or operator shall notify the Commissioner when the shutdown is over.</p>	<p>Minn. R. 7019.1000, subp. 3</p>
<p>Breakdown Notifications: Notify the Commissioner within 24 hours of a breakdown of more than one hour duration of any control equipment or process equipment if the breakdown causes any increase in the emissions of any regulated air pollutant. The 24-hour time period starts when the breakdown was discovered or reasonably should have been discovered by the owner or operator. However, notification is not required in the circumstances outlined in Items A, B and C of Minn. R. 7019.1000, subp. 2.</p> <p>At the time of notification or as soon as possible thereafter, the owner or operator shall inform the Commissioner of the cause of the breakdown and the estimated duration. The owner or operator shall notify the Commissioner when the breakdown is over.</p>	<p>Minn. R. 7019.1000, subp. 2</p>
<p>Deviations. An excursion from an established daily average operating parameter will be reported as a daily deviation. If the daily average operating parameter value for an emission unit or group of similar emission units does not meet the corresponding established operating limit, the Permittee shall report this as a deviation and follow corrective actions to restore the equipment and practices to proper operation to meet applicable permit conditions. This does not apply to compliance with the Taconite MACT. Taconite MACT compliance shall determined according to the applicable requirements and regulations in this permit and in 40 CFR Pt. 63, Subp. RRRRR.</p>	<p>40 CFR Section 64.9: CAM and Minn. R. 7017.0200; Minn. R. 7011.0715; Minn. R. 7011.0610; Minn. R. 7007.0800, subp. 6</p>
<p>Notification of Deviations Endangering Human Health or the Environment: As soon as possible after discovery, notify the Commissioner or the state duty officer, either orally or by facsimile, of any deviation from permit conditions which could endanger human health or the environment.</p>	<p>Minn. R. 7019.1000, subp. 1</p>
<p>Notification of Deviations Endangering Human Health or the Environment Report: Within 2 working days of discovery, notify the Commissioner in writing of any deviation from permit conditions which could endanger human health or the environment. Include the following information in this written description:</p> <ol style="list-style-type: none"> <li>1. the cause of the deviation;</li> <li>2. the exact dates of the period of the deviation, if the deviation has been corrected;</li> <li>3. whether or not the deviation has been corrected;</li> <li>4. the anticipated time by which the deviation is expected to be corrected, if not yet corrected; and</li> <li>5. steps taken or planned to reduce, eliminate, and prevent reoccurrence of the deviation.</li> </ol>	<p>Minn. R. 7019.1000, subp. 1</p>
<p>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 (this plan was submitted on October 30, 2006, see GP 015 for additional Fugitive Dust Control Plan information). The plan shall identify all fugitive emission sources, primary and contingent control measures, and record keeping. 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 and/or to install and operate particulate matter ambient monitors.</p>	<p>Minn. Stat. Section 116.07, subd. 4a; Minn. R. 7007.0800, subp. 2</p>
<p>MISCELLANEOUS REQUIREMENTS</p>	<p>hdr</p>
<p>Application for Permit Reissuance: due 180 days before expiration of existing permit.</p>	<p>Minn. R. 7007.0400, subp. 2</p>

**TABLE A: LIMITS AND OTHER REQUIREMENTS**

Facility Name: ArcelorMittal Minorca Mine Inc

Permit Number: 13700062 - 003

<p>Application for Permit Amendment: If a permit amendment is needed, submit an application in accordance with the requirements of Minn. R. 7007.1150 through Minn. R. 7007.1500. Submittal dates vary, depending on the type of amendment needed.</p>	<p>Minn. R. 7007.1150 - 7007.1500</p>
<p>Extension Requests: The Permittee may apply for an Administrative Amendment to extend a deadline in a permit by no more than 120 days, provided the proposed deadline extension meets the requirements of Minn. R. 7007.1400, subp. 1(H).</p>	<p>Minn. R. 7007.1400, subp. 1(H)</p>
<p>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.</p>	<p>Minn. R. 7019.3000 - 7019.3100</p>
<p>Emission Fees: due 60 days after receipt of an MPCA bill.</p>	<p>Minn. R. 7002.0005 - 7002.0095</p>
<p>By July 1, 2011, an owner or operator holding any existing part 70 or state facility permit must calculate whether the facility's potential to emit greenhouse gases meets or exceeds the permit threshold for greenhouse gases in part 7007.0200, subpart 2.                  (1) If the potential to emit greenhouse gases as CO<sub>2</sub>e does not exceed the permit threshold for greenhouse gases, the owner or operator must retain records of the calculation on site until January 2, 2016.                  (2) If the potential to emit greenhouse gases as CO<sub>2</sub>e exceeds the permit threshold for greenhouse gases, then the owner or operator must notify the Pollution Control Agency by June 30, 2011, if the facility can retain its current permit or submit an application by June 30, 2012, to revise the permit.</p>	<p>Minn. R. 7007.0150                  (contingent upon promulgation)</p>

**TABLE A: LIMITS AND OTHER REQUIREMENTS**

Facility Name: ArcelorMittal Minorca Mine Inc

Permit Number: 13700062 - 003

**Subject Item: GP 001 Secondary Crushing**

**Associated Items:** CE 004 Venturi Scrubber

CE 005 Venturi Scrubber

EU 003 Secondary Crusher System

EU 004 Secondary Crusher System

EU 005 Secondary Crusher System

SV 004 Secondary Crusher System

SV 005 Secondary Crusher System

What to do	Why to do it
A. POLLUTANT LIMITS	hdr
Filterable (front-half) Particulate Matter: This group is subject to the Taconite MACT Standard. Compliance with this standard is determined based on the flow weighted mean concentration for all Ore Crushing and Handling Sources (see GP 016).	40 CFR Section 63.9590(a); Table 1 of 40 CFR Part 63 Subpart RRRRR; 40 CFR Section 63.9620(a); 40 CFR Section 63.9621(b)(3); 40 CFR Section 63.9623(a)(1); 40 CFR Section 63.9634(b)(1)
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. This emission limit applies individually to each emission unit in this group.	Minn. R. 7011.0715, subp. 1(A)
Total Particulate Matter: greater than or equal to 85 percent control efficiency for equipment which is located not less than one-fourth mile from any residence or public roadway, and the operation of the entire emission facility does not cause a violation of the ambient air quality standards, shall be considered in compliance with the requirements of Minn. R. 7011.0715, subp. 1(A ). This emission limit applies individually to each emission unit in this group. (This is an alternative demonstration of compliance to Total Particulate Matter Limit.)	Minn. R. 7011.0715, subp. 3
Opacity: less than or equal to 20 percent opacity . This emission limit applies individually to each emission unit in this group.	Minn. R. 7011.0715, subp. 1(B)
B. POLLUTION CONTROL EQUIPMENT REQUIREMENTS	hdr
Wet Scrubber Monitoring Requirements: Install, operate, and maintain a continuous parametric monitoring system (CPMS) to measure the daily average scrubber pressure drop and the daily average scrubber water flow rate. For dynamic scrubbers, fan amps can be measured as an alternative to pressure drop.	40 CFR Section 63.9590(b)(1); 40 CFR Section 63.9631(b) and (c); 40 CFR Section 63.9632(b)(e); 40 CFR Section 63.9633; 40 CFR Section 9634(e)
Additional pollution control equipment requirements for this group are identified in GP 013 of this permit.	Minn. R. 7007.0800, subp. 2
C. PERFORMANCE TESTING REQUIREMENTS	hdr
Performance testing requirements for this group are identified in GP 013 of this permit.	Minn. R. 7007.0800, subp. 2

**TABLE A: LIMITS AND OTHER REQUIREMENTS**

Facility Name: ArcelorMittal Minorca Mine Inc

Permit Number: 13700062 - 003

**Subject Item: GP 002 Tertiary Crushing**

- Associated Items:** CE 006 Venturi Scrubber  
 CE 007 Venturi Scrubber  
 CE 008 Venturi Scrubber  
 EU 007 Tertiary Crusher System  
 EU 008 Tertiary Crusher System  
 EU 009 Tertiary Crusher System  
 EU 010 Tertiary Crusher System  
 SV 006 Tertiary Crusher System  
 SV 007 Tertiary Crusher System  
 SV 008 Tertiary Crusher System

What to do	Why to do it
A. POLLUTANT LIMITS	dr
Filterable (front-half) Particulate Matter: This group is subject to the Taconite MACT Standard. Compliance with this standard is determined based on the flow weighted mean concentration for all Ore Crushing and Handling Sources (see GP 016).	40 CFR Section 63.9590(a); Table 1 of 40 CFR Part 63 Subpart RRRRR; 40 CFR Section 63.9620(a); 40 CFR Section 63.9621(b)(3); 40 CFR Section 63.9623(a)(1); 40 CFR Section 63.9634(b)(1)
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. This emission limit applies individually to each emission unit in this group.	Minn. R. 7011.0715, subp. 1(A)
Total Particulate Matter: greater than or equal to 85 percent control efficiency for equipment which is located not less than one-fourth mile from any residence or public roadway, and the operation of the entire emission facility does not cause a violation of the ambient air quality standards, shall be considered in compliance with the requirements of Minn. R. 7011.0715, subp. 1(A ). This emission limit applies individually to each emission unit in this group. (This is an alternative demonstration of compliance to Total Particulate Matter Limit.)	Minn. R. 7011.0715, subp. 3
Opacity: less than or equal to 20 percent opacity . This emission limit applies to each emission unit in this group.	Minn. R. 7011.0715, subp. 1(B)
B. POLLUTION CONTROL EQUIPMENT REQUIREMENTS	hdr
Wet Scrubber Monitoring Requirements: Install, operate, and maintain a continuous parametric monitoring system (CPMS) to measure the daily average scrubber pressure drop and the daily average scrubber water flow rate. For dynamic scrubbers, fan amps can be measured as an alternative to pressure drop.	40 CFR Section 63.9590(b)(1); 40 CFR Section 63.9622(a); 40 CFR Section 63.9631(b); 40 CFR Section 63.9632(b)(e); 40 CFR Section 63.9633; 40 CFR Section 9634(e)
Additional pollution control equipment requirements for this group are identified in GP 013 of this permit.	Minn. R. 7007.0800, subp. 2
C. PERFORMANCE TESTING REQUIREMENTS	hdr
Performance testing requirements for this group are identified in GP 013 of this permit.	Minn. R. 7007.0800, subp. 2

**TABLE A: LIMITS AND OTHER REQUIREMENTS**

Facility Name: ArcelorMittal Minorca Mine Inc  
 Permit Number: 13700062 - 003

**Subject Item: GP 003 Fine ore drop, underfeed & inter. conveyor**

- Associated Items:** CE 009 Fabric Filter - Low Temperature, i.e., T<180 Degrees F  
 CE 010 Fabric Filter - Low Temperature, i.e., T<180 Degrees F  
 EU 006 Outside Ore Transfer  
 EU 011 Fine Ore Drop Onto Two Underfeed Belts  
 EU 012 Fine Ore Drop Onto Intermediate Conveyor  
 SV 009 Outside Ore Transfer  
 SV 010 Fine Ore Drop Onto Two Underbelt Feeds

What to do	Why to do it
A. POLLUTANT LIMITS	hdr
Filterable (front-half) Particulate Matter: This group is subject to the Taconite MACT Standard. Compliance with this standard is determined based on the flow weighted mean concentration for all Ore Crushing and Handling Sources (see GP 016).	40 CFR Section 63.9590(a); Table 1 of 40 CFR Part 63 Subpart RRRRR; 40 CFR Section 63.9620(a); 40 CFR Section 63.9621(b)(3); 40 CFR Section 63.9623(a)(1); 40 CFR Section 63.9634(b)(1)
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. This emission limit applies individually to each emission unit in this group.	Minn. R. 7011.0715, subp. 1(A)
Total Particulate Matter: greater than or equal to 85 percent control efficiency for equipment which is located not less than one-fourth mile from any residence or public roadway, and the operation of the entire emission facility does not cause a violation of the ambient air quality standards, shall be considered in compliance with the requirements of Minn. R. 7011.0715, subp. 1(A ). This emission limit applies individually to each emission unit in this group. (This is an alternative demonstration of compliance to Total Particulate Matter Limit.)	Minn. R. 7011.0715, subp. 3
Opacity: less than or equal to 20 percent opacity . This emission limit applies individually to each emission unit in this group.	Minn. R. 7011.0715, subp. 1(B)
B. POLLUTION CONTROL EQUIPMENT REQUIREMENTS (units within this group are to be tested on a rotating basis as appropriate determined by the MPCA)	hdr
Bag Leak Detection System Requirements: Install, operate, and maintain a bag leak detection system to monitor the changes in particulate matter loadings. The bag leak detection system shall meet the requirements of 40 CFR Section 63.9632(a). Records must be maintained as detailed in the Site-Specific Bag Leak Detection System Monitoring Plan.	40 CFR Section 63.9631(a); 40 CFR Section 63.9632(a); 40 CFR Section 63.9633; 40 CFR Section 63.9634(d)
Additional pollution control equipment requirements for this group are identified in GP 015 of this permit.	Minn. R. 7007.0800, subp. 2
C. PERFORMANCE TESTING REQUIREMENTS	hdr
Performance test for Taconite MACT: to determine filterable particulate matter (FPM) emissions for compliance with the Taconite MACT standard. The performance test shall be conducted on one representative stack of this group of similar emission units. Compliance with the standard is based on the flow weighted average concentration of particulate matter discharged to the atmosphere from all affected Ore Crushing and Handling Sources (see the requirements for GP 016).  Performance test calculation procedures shall be consistent with 40 CFR Section 63.9621(b) Performance Test: due before end of each calendar 60 months starting 04/28/2007	40 CFR Section 63.9620(a); 40 CFR Section 63.9621(b); 40 CFR Section 63.9634(b)(2);
Performance Test for Industrial Process Equipment Rules (IPER): to determine Total Particulate Matter and Opacity emissions to demonstrate compliance with the IPER emission limitations. The performance test shall be conducted on one representative stack of this group of similar emission units. Performance Test: due before end of each calendar 60 months starting 04/28/2007	40 CFR Section 64.3: CAM and Minn. R. 7017.0200; Minn. R. 7017.2020, subp. 1; Minn. R. 7017.2025, subp. 3

**TABLE A: LIMITS AND OTHER REQUIREMENTS**

Facility Name: ArcelorMittal Minorca Mine Inc  
 Permit Number: 13700062 - 003

**Subject Item: GP 004 Fine ore drop, rod mill material handling**

- Associated Items:** CE 011 Venturi Scrubber  
 EU 013 Fine Ore Drop Onto Rod Mill Bin Conveyor  
 EU 014 Fine Ore Drop Onto Rod Mill Bin Feeder  
 EU 015 Fine Ore Drop Into Rod Mill Bin  
 EU 016 Fine Ore Drop Onto Internal Conveyors  
 EU 017 Fine Ore Drop Into Rod Mills  
 SV 011 Fine Ore Drop Onto Rod Mill Bin Conveyor

What to do	Why to do it
A. POLLUTANT LIMITS	hdr
Filterable (front-half) Particulate Matter: This group is subject to the Taconite MACT Standard. Compliance with this standard is determined based on the flow weighted mean concentration for all Ore Crushing and Handling Sources (see GP 016).	40 CFR Section 63.9590(a); Table 1 of 40 CFR Part 63 Subpart RRRRR; 40 CFR Section 63.9620(a); 40 CFR Section 63.9621(b)(3); 40 CFR Section 63.9623(a)(1); 40 CFR Section 63.9634(b)(1)
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. This emission limit applies individually to each emission unit in this group.	Minn. R. 7011.0715, subp. 1(A)
Total Particulate Matter: greater than or equal to 85 percent control efficiency for equipment which is located not less than one-fourth mile from any residence or public roadway, and the operation of the entire emission facility does not cause a violation of the ambient air quality standards, shall be considered in compliance with the requirements of Minn. R. 7011.0715, subp. 1(A ). This emission limit applies individually to each emission unit in this group. (This is an alternative demonstration of compliance to Total Particulate Matter Limit.)	Minn. R. 7011.0715, subp. 3
Opacity: less than or equal to 20 percent opacity . This emission limit applies individually to each emission unit in this group.	Minn. R. 7011.0715, subp. 1(B)
B. POLLUTION CONTROL EQUIPMENT REQUIREMENTS	hdr
Wet Scrubber Monitoring Requirements: Install, operate, and maintain a continuous parametric monitoring system (CPMS) to measure the daily average scrubber pressure drop and the daily average scrubber water flow rate. For dynamic scrubbers, fan amps can be measured as an alternative to pressure drop.	40 CFR Section 63.9590(b)(1); 40 CFR Section 63.9622(a); 40 CFR Section 63.9631(b); 40 CFR Section 63.9632(b)(e); 40 CFR Section 63.9633; 40 CFR Section 9634(e)
Additional pollution control equipment requirements for this group are identified in GP 013 of this permit.	Minn. R. 7007.0800, subp. 2
C. PERFORMANCE TESTING REQUIREMENTS	hdr
Performance testing requirements for this group are identified in GP 013 of this permit.	Minn. R. 7007.0800, subp. 2

**TABLE A: LIMITS AND OTHER REQUIREMENTS**

Facility Name: ArcelorMittal Minorca Mine Inc  
 Permit Number: 13700062 - 003

**Subject Item:** GP 005 Binder shift bins and blending

**Associated Items:** CE 013 Fabric Filter - Low Temperature, i.e., T<180 Degrees F  
 EU 019 Binder Transfer to Binder Shift Bins  
 EU 020 Binder Blending  
 SV 013 Binder Transfer to Binder Shift Bins

What to do	Why to do it
A. POLLUTANT LIMITS	hdr
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. This emission limit applies individually to each emission unit in this group.	Minn. R. 7011.0715, subp. 1(A)
Total Particulate Matter: greater than or equal to 85 percent control efficiency for equipment which is located not less than one-fourth mile from any residence or public roadway, and the operation of the entire emission facility does not cause a violation of the ambient air quality standards, shall be considered in compliance with the requirements of Minn. R. 7011.0715, subp. 1(A). This emission limit applies individually to each emission unit in this group. (This is an alternative demonstration of compliance to Total Particulate Matter Limit.)	Minn. R. 7011.0715, subp. 3
Opacity: less than or equal to 20 percent opacity. This emission limit applies individually to each emission unit in this group.	Minn. R. 7011.0715, subp. 1(B)
B. POLLUTION CONTROL EQUIPMENT REQUIREMENTS	hdr
Parametric Monitoring: For each baghouse, the Permittee shall either (option 1) make daily visible emission checks or pressure drop readings when visible emission checks cannot be performed, or (option 2) operate a bag leak detector.	Minn. R. 7007.0800, subp. 4(D); Minn. R. 7007.0800, subp. 14; Minn. R. 7007.0800, subp. 16(J)
Option 1- Process Monitoring: a person who has been trained according to the requirement "Visible Emission Training" in the Total Facility section of this permit shall check the visible emissions from the stack once each operating day. Evidence of visible emissions shall trigger a corrective action as detailed in the O&M Plan. (continued below)	Minn. R. 7007.0800, subp. 4(D); Minn. R. 7007.0800, subp. 14; Minn. R. 7007.0800, subp. 16(J) (continued below)
(continued from above) Option 1- Gas Pressure Drop: if visible emission checks cannot be performed, the pressure drop shall be recorded at least once each day. The pressure drop shall be maintained as found in Appendix A. A deviation from this operating range shall trigger a corrective action as detailed in the O&M Plan.	(continued from above) Minn. R. 7007.0800, subp. 4(D); Minn. R. 7007.0800, subp. 14; Minn. R. 7007.0800, subp. 16(J)
Option 2- Bag Leak Detectors: If the permittee uses a bag leak detector, an alarm of the detector shall trigger a corrective action as detailed in the O&M Plan.	Minn. R. 7007.0800, subp. 4(D); Minn. R. 7007.0800, subp. 14; Minn. R. 7007.0800, subp. 16(J)



**TABLE A: LIMITS AND OTHER REQUIREMENTS**

Facility Name: ArcelorMittal Minorca Mine Inc

Permit Number: 13700062 - 003

**Subject Item:** GP 006 **Hearth Layer Bin, Conveyor and Grate Feed**

- Associated Items:** CE 019 Wet Scrubber-Medium Efficiency w/o Lime  
 EU 021 Pellet Drop Onto Internal Hearth Layer Conveyor  
 EU 022 Drop Into Hearth Layer Bin  
 EU 023 Grate Feed  
 SV 019 Pellet Drop Onto Internal Hearth Layer Conveyor

What to do	Why to do it
A. POLLUTANT LIMITS	hdr
Filterable Particulate Matter: This group is subject to the Taconite MACT Standard. Compliance with this standard is determined based on the flow weighted mean concentration for all Finished Pellet Handling Sources (see GP 017).	40 CFR Section 63.9590(a); Table 1 of 40 CFR Part 63 Subpart RRRRR; 40 CFR Section 63.9620(a); 40 CFR Section 63.9621(b)(3); 40 CFR Section 63.9623(a)(1); 40 CFR Section 63.9634(b)(1)
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. This emission limit applies individually to each emission unit in this group.	Minn. R. 7011.0715, subp. 1(A)
Total Particulate Matter: greater than or equal to 85 percent control efficiency for equipment which is located not less than one-fourth mile from any residence or public roadway, and the operation of the entire emission facility does not cause a violation of the ambient air quality standards, shall be considered in compliance with the requirements of Minn. R. 7011.0715, subp. 1(A ). This emission limit applies individually to each emission unit in this group. (This is an alternative demonstration of compliance to Total Particulate Matter Limit.)	Minn. R. 7011.0715, subp. 3
Opacity: less than or equal to 20 percent opacity . This emission limit applies individually to each emission unit in this group.	Minn. R. 7011.0715, subp. 1(B)
B. POLLUTION CONTROL EQUIPMENT REQUIREMENTS	hdr
Wet Scrubber Monitoring Requirements: Install, operate, and maintain a continuous parametric monitoring system (CPMS) to measure the daily average scrubber pressure drop and the daily average scrubber water flow rate. For dynamic scrubbers, fan amps can be measured as an alternative to pressure drop.	40 CFR Section 63.9590(b)(1); 40 CFR Section 63.9631(b) and (c); 40 CFR Section 63.9632(b)(e); 40 CFR Section 63.9633; 40 CFR Section 9634(e)
Additional pollution control equipment requirements for this group are identified in GP 014 of this permit.	Minn. R. 7007.0800, subp. 2
C. PERFORMANCE TESTING REQUIREMENTS	hdr
Performance testing requirements for this group are identified in GP 014 of this permit.	Minn. R. 7007.0800, subp. 2

**TABLE A: LIMITS AND OTHER REQUIREMENTS**

Facility Name: ArcelorMittal Minorca Mine Inc

Permit Number: 13700062 - 003

**Subject Item: GP 007 Hearth Layer Screen and Conveyor to Hearth Layer Bin**

**Associated Items:** CE 020 Wet Scrubber-Medium Efficiency w/o Lime

EU 024 Drop Into Hearth Layer Screen

EU 025 Drop Onto Conveyor to Hearth Layer Bin

SV 020 Drop into Hearth Layer Screen

What to do	Why to do it
A. POLLUTANT LIMITS	hdr
Filterable Particulate Matter: This group is subject to the Taconite MACT Standard. Compliance with this standard is determined based on the flow weighted mean concentration for all Finished Pellet Handling Sources (see GP 017).	40 CFR Section 63.9590(a); Table 1 of 40 CFR Part 63 Subpart RRRRR; 40 CFR Section 63.9620(a); 40 CFR Section 63.9621(b)(3); 40 CFR Section 63.9623(a)(1); 40 CFR Section 63.9634(b)(1)
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. This emission limit applies individually to each emission unit in this group.	Minn. R. 7011.0715, subp. 1(A)
Total Particulate Matter: greater than or equal to 85 percent control efficiency for equipment which is located not less than one-fourth mile from any residence or public roadway, and the operation of the entire emission facility does not cause a violation of the ambient air quality standards, shall be considered in compliance with the requirements of Minn. R. 7011.0715, subp. 1(A). This emission limit applies individually to each emission unit in this group. (This is an alternative demonstration of compliance to Total Particulate Matter Limit.)	Minn. R. 7011.0715, subp. 3
Opacity: less than or equal to 20 percent opacity. This emission limit applies individually to each emission unit in this group.	Minn. R. 7011.0715, subp. 1(B)
B. POLLUTION CONTROL EQUIPMENT REQUIREMENTS	hdr
Wet Scrubber Monitoring Requirements: Install, operate, and maintain a continuous parametric monitoring system (CPMS) to measure the daily average scrubber pressure drop and the daily average scrubber water flow rate. For dynamic scrubbers, fan amps can be measured as an alternative to pressure drop.	40 CFR Section 63.9590(b)(1); 40 CFR Section 63.9631(b) and (c); 40 CFR Section 63.9632(b)(e); 40 CFR Section 63.9633; 40 CFR Section 63.9634(e)
Additional pollution control equipment requirements for this group are identified in GP 014 of this permit.	Minn. R. 7007.0800, subp. 2
C. PERFORMANCE TESTING REQUIREMENTS	hdr
Performance testing requirements for this group are identified in GP 014 of this permit.	Minn. R. 7007.0800, subp. 2

**TABLE A: LIMITS AND OTHER REQUIREMENTS**

Facility Name: ArcelorMittal Minorca Mine Inc

Permit Number: 13700062 - 003

**Subject Item:** GP 008 Machine Discharge & Conveyor to Spl.Bin

**Associated Items:** CE 018 Wet Scrubber-Medium Efficiency w/o Lime

EU 027 Machine Discharge

EU 028 Drop Onto Conveyor to Pellet Splitter Bin

SV 018 Machine Discharge

What to do	Why to do it
A. POLLUTANT LIMITS	hdr
Filterable Particulate Matter: This group is subject to the Taconite MACT Standard. Compliance with this standard is determined based on the flow weighted mean concentration for all Finished Pellet Handling Sources (see GP 017).	40 CFR Section 63.9590(a); Table 1 of 40 CFR Part 63 Subpart RRRRR; 40 CFR Section 63.9620(a); 40 CFR Section 63.9621(b)(3); 40 CFR Section 63.9623(a)(1); 40 CFR Section 63.9634(b)(1)
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. This emission limit applies individually to each emission unit in this group.	Minn. R. 7011.0715, subp. 1(A)
Total Particulate Matter: greater than or equal to 85 percent control efficiency for equipment which is located not less than one-fourth mile from any residence or public roadway, and the operation of the entire emission facility does not cause a violation of the ambient air quality standards, shall be considered in compliance with the requirements of Minn. R. 7011.0715, subp. 1(A). This emission limit applies individually to each emission unit in this group. (This is an alternative demonstration of compliance to Total Particulate Matter Limit.)	Minn. R. 7011.0715, subp. 3
Opacity: less than or equal to 20 percent opacity. This emission limit applies individually to each emission unit in this group.	Minn. R. 7011.0715, subp. 1(B)
B. POLLUTION CONTROL EQUIPMENT REQUIREMENTS	hdr
Wet Scrubber Monitoring Requirements: Install, operate, and maintain a continuous parametric monitoring system (CPMS) to measure the daily average scrubber pressure drop and the daily average scrubber water flow rate. For dynamic scrubbers, fan amps can be measured as an alternative to pressure drop.	40 CFR Section 63.9590(b)(1); 40 CFR Section 63.9631(b) and (c); 40 CFR Section 63.9632(b)-(e); 40 CFR Section 63.9633; 40 CFR Section 9634(e)
Scrubber Fan Amps or Pressure Drop Daily Average: comply with the limits as presented in Appendix A.	40 CFR Section 63.9590(b)(1); 40 CFR Section 63.9631(b) and (c); 40 CFR Section 63.9632(b)-(e); 40 CFR Section 63.9633; 40 CFR Section 63.9634(e)
Scrubber Water Flow Rate Daily Average: comply with the limits as presented in Appendix A.	40 CFR Section 63.9590(b)(1); 40 CFR Section 63.9631(b) and (c); 40 CFR Section 63.9632(b)-(e); 40 CFR Section 63.9633; 40 CFR Section 63.9634(e)
C. PERFORMANCE TESTING REQUIREMENTS	hdr
Performance test for Taconite MACT: to determine filterable particulate matter (FPM) emissions for compliance with the Taconite MACT standard. The performance test shall be conducted on one representative stack of this group of similar emission units. Compliance with the standard is based on the flow weighted average concentration of particulate matter discharged to the atmosphere from all affected Finished Pellet Handling Sources (see the requirements for GP 017).  Performance test calculation procedures shall be consistent with 40 CFR Section 63.9621(b) Performance Test: due before end of each calendar 60 months starting 04/28/2007	40 CFR Section 63.9620(a); 40 CFR Section 63.9621(b); 40 CFR Section 63.9634(b)(2);
Performance Test for IPER: to determine Total Particulate Matter and Opacity emissions to demonstrate compliance with the IPER emission limitations. The performance test shall be conducted on one representative stack of this group of similar emission units. Performance Test: due before end of each calendar 60 months starting 04/28/2007	40 CFR Section 64.3: CAM and Minn. R. 7017.0200; Minn. R. 7017.2020, subp. 1; Minn. R. 7017.2025, subp. 3

**TABLE A: LIMITS AND OTHER REQUIREMENTS**

Facility Name: ArcelorMittal Minorca Mine Inc

Permit Number: 13700062 - 003

**Subject Item:** GP 009 Drop into Spl. Bin & into Prod. Spl. Bin Conv.

**Associated Items:** CE 021 Wet Scrubber-Medium Efficiency w/o Lime

EU 029 Drop Into Pellet Splitter Bin

EU 030 Drop Onto Product Splitter Bin Conveyors

SV 021 Drop Into Pellet Splitter Bin

What to do	Why to do it
A. POLLUTANT LIMITS	hdr
Filterable Particulate Matter: This group is subject to the Taconite MACT Standard. Compliance with this standard is determined based on the flow weighted mean concentration for all Finished Pellet Handling Sources (see GP 017).	40 CFR Section 63.9590(a); Table 1 of 40 CFR Part 63 Subpart RRRRR; 40 CFR Section 63.9620(a); 40 CFR Section 63.9621(b)(3); 40 CFR Section 63.9623(a)(1); 40 CFR Section 63.9634(b)(1)
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. This emission limit applies individually to each emission unit in this group.	Minn. R. 7011.0715, subp. 1(A)
Total Particulate Matter: greater than or equal to 85 percent control efficiency for equipment which is located not less than one-fourth mile from any residence or public roadway, and the operation of the entire emission facility does not cause a violation of the ambient air quality standards, shall be considered in compliance with the requirements of Minn. R. 7011.0715, subp. 1(A ). This emission limit applies individually to each emission unit in this group. (This is an alternative demonstration of compliance to Total Particulate Matter Limit.)	Minn. R. 7011.0715, subp. 3
Opacity: less than or equal to 20 percent opacity . This emission limit applies individually to each emission unit in this group.	Minn. R. 7011.0715, subp. 1(B)
B. POLLUTION CONTROL EQUIPMENT REQUIREMENTS	hdr
Wet Scrubber Monitoring Requirements: Install, operate, and maintain a continuous parametric monitoring system (CPMS) to measure the daily average scrubber pressure drop and the daily average scrubber water flow rate. For dynamic scrubbers, fan amps can be measured as an alternative to pressure drop.	40 CFR Section 63.9590(b)(1); 40 CFR Section 63.9631(b) and (c); 40 CFR Section 63.9632(b)(e); 40 CFR Section 63.9633; 40 CFR Section 63.9634(e)
C. PERFORMANCE TESTING REQUIREMENTS	hdr
Performance testing requirements for this group are identified in GP 014 of this permit.	Minn. R. 7007.0800, subp. 2

**TABLE A: LIMITS AND OTHER REQUIREMENTS**

A-16 03/29/11

Facility Name: ArcelorMittal Minorca Mine Inc

Permit Number: 13700062 - 003

**Subject Item: GP 010 Fluxstone Handling (NSPS 000)****Associated Items:** EU 035 Fluxstone handling

<b>What to do</b>	<b>Why to do it</b>
A. POLLUTANT LIMITS	hdr
Opacity: less than or equal to 10 percent opacity	40 CFR Section 60.672(b) Table 3 to Subpart 000

**TABLE A: LIMITS AND OTHER REQUIREMENTS**

Facility Name: ArcelorMittal Minorca Mine Inc

Permit Number: 13700062 - 003

**Subject Item: GP 011 Fugitive Sources Subject to Fugitive Dust Plan**

- Associated Items:** FS 007 PM10 - Haulage Truck Operation  
 FS 008 PM10 - Tailings Truck Operation  
 FS 009 PM10 - Wind Erosion of Laurentian Pit Waste Rock and Overburden Piles  
 FS 011 PM10 - Wind Erosion of Tailings Basin  
 FS 012 PM10 - Ore Dump Into Primary Crusher  
 FS 013 PM10 - Coarse Ore Pile Drop  
 FS 014 PM10 - Wind Erosion of Coarse Ore Pile  
 FS 015 PM10 - Fine Ore Pile Drop  
 FS 016 PM10 - Wind Erosion of Fine Ore Pile  
 FS 017 PM10 - Taconite Pellet Pile Drop  
 FS 018 PM10 - Wind Erosion of Taconite Pile  
 FS 019 PM10 - Pellet Loadout Drop  
 FS 020 PM10 - Wind Erosion of Fluxstone Pile  
 FS 026 Fluxstone Crushing Operation (wet process)

What to do	Why to do it
Fugitive Dust Control Plan: Comply with the Fugitive Dust Control Plan. Follow the actions and recordkeeping specified in the Fugitive Dust Control Plan. The plan may be amended with the Commissioners approval. If the Commissioner determines the Permittee is out of compliance with Minn. R. 7011.0150, or Fugitive Dust Control Plan, then the Permittee may be required to amend the Fugitive Control Plan. Prior to approval of the Fugitive Dust Control Plan the Permittee shall observe fugitive emissions from FS007-020 at least once daily and take corrective action to control emissions in excess of Minn. R. 7011.0150. The fugitive control plan shall also contain requirements for compliance with the fugitive dust emission standards in 40 CFR Part 63 Subpart RRRRR for emissions from stockpiles, material transfer points, plant roadways, tailings basin, pellet loading areas, and yard areas. Additional information regarding compliance with the fugitive dust emissions requirements of Subpart RRRRR	Minn. R. 7011.0150, 40 CFR Section 63.9591, 40 CFR Section 63.9635

**TABLE A: LIMITS AND OTHER REQUIREMENTS**

Facility Name: ArcelorMittal Minorca Mine Inc  
 Permit Number: 13700062 - 003

**Subject Item: GP 012 Ore Handling Baghouses**

**Associated Items:** CE 002 Fabric Filter - Low Temperature, i.e., T<180 Degrees F  
 CE 003 Fabric Filter - Low Temperature, i.e., T<180 Degrees F  
 EU 001 Primary Crusher System  
 EU 002 Drop Onto Coarse Ore Pile Conveyor  
 SV 002 Primary Crusher System  
 SV 003 Drop onto Coarse Ore Pile Conveyor

What to do	Why to do it
A. POLLUTANT LIMITS	hdr
Filterable (front-half) Particulate Matter: This group is subject to the Taconite MACT Standard. Compliance with this standard is determined based on the flow weighted mean concentration for all Ore Crushing and Handling Sources (see GP 016).	40 CFR Section 63.9590(a); Table 1 of 40 CFR Part 63 Subpart RRRRR; 40 CFR Section 63.9620(a); 40 CFR Section 63.9621(b)(3); 40 CFR Section 63.9623(a)(1); 40 CFR Section 63.9634(b)(1)
B. POLLUTION CONTROL EQUIPMENT REQUIREMENTS	hdr
Bag Leak Detection System Requirements: Install, operate, and maintain a bag leak detection system to monitor the changes in particulate matter loadings. The bag leak detection system shall meet the requirements of 40 CFR Section 63.9632(a). Records must be maintained as detailed in the Site-Specific Bag Leak Detection System Monitoring Plan.	40 CFR Section 63.9631(a); 40 CFR Section 63.9632(a); 40 CFR Section 63.9633; 40 CFR Section 63.9634(d)
Additional pollution control equipment requirements for this group are identified in GP 015 of this permit.	Minn. R. 7007.0800, subp. 2
C. PERFORMANCE TESTING REQUIREMENTS (units within this group are to be tested on a rotating basis as appropriate determined by the MPCA)	hdr
Performance test for Taconite MACT: to determine filterable particulate matter (FPM) emissions for compliance with the Taconite MACT standard. The performance test shall be conducted on one representative stack of this group of similar emission units. Compliance with the standard is based on the flow weighted average concentration of particulate matter discharged to the atmosphere from all affected Ore Crushing and Handling Sources (see the requirements for GP 016).  Performance test calculation procedures shall be consistent with 40 CFR Section 63.9621(b) Performance Test: due before end of each calendar 60 months starting 04/28/2007	40 CFR Section 63.9620(a); 40 CFR Section 63.9621(b); 40 CFR Section 63.9634(b)(2);
Performance Test for IPER: to determine Total Particulate Matter and Opacity emissions to demonstrate compliance with the IPER emission limitations. The performance test shall be conducted on one representative stack of this group of similar emission units. Performance Test: due before end of each calendar 60 months starting 04/28/2007	40 CFR Section 64.3: CAM and Minn. R. 7017.0200; Minn. R. 7017.2020, subp. 1; Minn. R. 7017.2025, subp. 3

**TABLE A: LIMITS AND OTHER REQUIREMENTS**

Facility Name: ArcelorMittal Minorca Mine Inc  
 Permit Number: 13700062 - 003

**Subject Item: GP 013 Crushing Scrubbers**

- Associated Items:**
- CE 004 Venturi Scrubber
  - CE 005 Venturi Scrubber
  - CE 006 Venturi Scrubber
  - CE 007 Venturi Scrubber
  - CE 008 Venturi Scrubber
  - CE 011 Venturi Scrubber
  - EU 003 Secondary Crusher System
  - EU 004 Secondary Crusher System
  - EU 005 Secondary Crusher System
  - EU 007 Tertiary Crusher System
  - EU 008 Tertiary Crusher System
  - EU 009 Tertiary Crusher System
  - EU 010 Tertiary Crusher System
  - EU 013 Fine Ore Drop Onto Rod Mill Bin Conveyor
  - EU 014 Fine Ore Drop Onto Rod Mill Bin Feeder
  - EU 015 Fine Ore Drop Into Rod Mill Bin
  - EU 016 Fine Ore Drop Onto Internal Conveyors
  - EU 017 Fine Ore Drop Into Rod Mills
  - SV 004 Secondary Crusher System
  - SV 005 Secondary Crusher System
  - SV 006 Tertiary Crusher System
  - SV 007 Tertiary Crusher System
  - SV 008 Tertiary Crusher System
  - SV 011 Fine Ore Drop Onto Rod Mill Bin Conveyor

What to do	Why to do it
A. POLLUTANT LIMITS	hdr
Filterable (front-half) Particulate Matter: This group is subject to the Taconite MACT Standard. Compliance with this standard is determined based on the flow weighted mean concentration for all Ore Crushing and Handling Sources (see GP 016).	40 CFR Section 63.9590(a); Table 1 of 40 CFR Part 63 Subpart RRRRR; 40 CFR Section 63.9620(a); 40 CFR Section 63.9621(b)(3); 40 CFR Section 63.9623(a)(1); 40 CFR Section 63.9634(b)(1)
B. POLLUTION CONTROL EQUIPMENT REQUIREMENTS	hdr
Wet Scrubber Monitoring Requirements: Install, operate, and maintain a continuous parametric monitoring system (CPMS) on each scrubber to measure either the daily average scrubber pressure drop or fan amps and the daily average scrubber water flow rate.	40 CFR Section 63.9590(b)(1); 40 CFR Section 63.9631(b); 40 CFR Section 63.9632(b)-(e); 40 CFR Section 63.9633; 40 CFR Section 63.9634(e)
Group Daily Average Calculations: The daily average value for the Taconite MACT CPMS parameters for all emission units within this group shall be calculated as follows:  $P_k = \text{Sum } (P_j) \dots$  Where: P <sub>k</sub> = daily average operating parameter value for all emission units within group "k" P <sub>j</sub> = average monitoring parameter value corresponding to unit "j" within group "k" n = total number of emission units within group "k"	40 CFR Section 63.9590(b)(1); 40 CFR Section 63.9622(a); 40 CFR Section 63.9631(b) and (c); 40 CFR Section 63.9632(b)-(e); 40 CFR Section 63.9633; 40 CFR Section 63.9634(b)(3); 40 CFR Section 63.9634(e)
Scrubber Pressure Drop or Fan Amps Group Daily Average: comply with the limits as presented in Appendix A.	40 CFR Section 63.9590(b)(1); 40 CFR Section 63.9622(a); 40 CFR Section 63.9631(b); 40 CFR Section 63.9632(b)-(e); 40 CFR Section 63.9633; 40 CFR Section 9634(b)(3); 40 CFR Section 63.9634(e)
Scrubber Water Flow Rate Group Daily Average: comply with the limits as presented in Appendix A.	40 CFR Section 63.9590(b)(1); 40 CFR Section 63.9622(a); 40 CFR Section 63.9631(b); 40 CFR Section 63.9632(b)-(e); 40 CFR Section 63.9633; 40 CFR Section 9634(b)(3); 40 CFR Section 63.9634(e)



**TABLE A: LIMITS AND OTHER REQUIREMENTS**

A-20 03/29/11

Facility Name: ArcelorMittal Minorca Mine Inc

Permit Number: 13700062 - 003

C. PERFORMANCE TESTING REQUIREMENTS (units within this group are to be tested on a rotating basis as appropriate determined by the MPCA)	hdr
Performance test for Taconite MACT: to determine filterable particulate matter (FPM) emissions for compliance with the Taconite MACT standard. The performance test shall be conducted on one representative stack of this group of similar emission units. Compliance with the standard is based on the flow weighted average concentration of particulate matter discharged to the atmosphere from all affected Ore Crushing and Handling Sources (see the requirements for GP 016).  Performance test calculation procedures shall be consistent with 40 CFR Section 63.9621(b) Performance Test: due before end of each calendar 60 months starting 04/28/2007	40 CFR Section 63.9620(a); 40 CFR Section 63.9621(b); 40 CFR Section 63.9634(b)(2);
Performance Test for IPER: to determine Total Particulate Matter and Opacity emissions to demonstrate compliance with the IPER emission limitations. The performance test shall be conducted on one representative stack of this group of similar emission units. Performance Test: due before end of each calendar 60 months starting 04/28/2007	40 CFR Section 64.3: CAM and Minn. R. 7017.0200; Minn. R. 7017.2020, subp. 1; Minn. R. 7017.2025, subp. 3

**TABLE A: LIMITS AND OTHER REQUIREMENTS**

Facility Name: ArcelorMittal Minorca Mine Inc  
 Permit Number: 13700062 - 003

**Subject Item: GP 014 Pellet Conveying Scrubbers**

- Associated Items:**
- CE 019 Wet Scrubber-Medium Efficiency w/o Lime
  - CE 020 Wet Scrubber-Medium Efficiency w/o Lime
  - CE 021 Wet Scrubber-Medium Efficiency w/o Lime
  - CE 024 Wet Scrubber-Medium Efficiency w/o Lime
  - EU 021 Pellet Drop Onto Internal Hearth Layer Conveyor
  - EU 022 Drop Into Hearth Layer Bin
  - EU 023 Grate Feed
  - EU 024 Drop Into Hearth Layer Screen
  - EU 025 Drop Onto Conveyor to Hearth Layer Bin
  - EU 029 Drop Into Pellet Splitter Bin
  - EU 030 Drop Onto Product Splitter Bin Conveyors
  - EU 031 Drop In PI-P2 Transfer House
  - SV 019 Pellet Drop Onto Internal Hearth Layer Conveyor
  - SV 020 Drop into Hearth Layer Screen
  - SV 021 Drop Into Pellet Splitter Bin

What to do	Why to do it
A. POLLUTANT LIMITS	hdr
Filterable (front-half) Particulate Matter: This group is subject to the Taconite MACT Standard. Compliance with this standard is determined based on the flow weighted mean concentration for all Finished Pellet Handling Sources (see GP 017).	40 CFR Section 63.9590(a); Table 1 of 40 CFR Part 63 Subpart RRRRR; 40 CFR Section 63.9620(a); 40 CFR Section 63.9621(b)(3); 40 CFR Section 63.9623(a)(1); 40 CFR Section 63.9634(b)(1)
B. POLLUTION CONTROL EQUIPMENT REQUIREMENTS	hdr
Wet Scrubber Monitoring Requirements: Install, operate, and maintain a continuous parametric monitoring system (CPMS) on each scrubber to measure either the daily average fan amps or daily average pressure drop and the daily average scrubber water flow rate.	40 CFR Section 63.9590(b)(1); 40 CFR Section 63.9631(b) and (c); 40 CFR Section 63.9632(b)-(e); 40 CFR Section 63.9633; 40 CFR Section 63.9634(e)
Group Daily Average Calculations: The daily average value for the Taconite MACT CPMS parameters for all emission units within this group shall be calculated as follows:  $P_k = \text{Sum} (P_j) \dots$ Where: P <sub>k</sub> = daily average operating parameter value for all emission units within group P <sub>j</sub> = average monitoring parameter value corresponding to unit <i>j</i> within group n = total number of emission units within group	40 CFR Section 63.9590(b)(1); 40 CFR Section 63.9622(a); 40 CFR Section 63.9631(b) and (c); 40 CFR Section 63.9632(b)-(e); 40 CFR Section 63.9633; 40 CFR Section 63.9634(b)(3); 40 CFR Section 63.9634(e)
Scrubber Fan Amps: comply with the limits as presented in Appendix A.	40 CFR Section 63.9590(b)(1); 40 CFR Section 63.9631(b) and (c); 40 CFR Section 63.9632(b)-(e); 40 CFR Section 63.9633; 40 CFR Section 63.9634(e)
Scrubber Water Flow Rate Group Daily Average: comply with the limits as presented in Appendix A.	40 CFR Section 63.9590(b)(1); 40 CFR Section 63.9631(b) and (c); 40 CFR Section 63.9632(b)-(e); 40 CFR Section 63.9633; 40 CFR Section 63.9634(e)
C. PERFORMANCE TESTING REQUIREMENTS (units within this group are to be tested on a rotating basis as appropriate determined by the MPCA)	hdr
Performance test for Taconite MACT: to determine filterable particulate matter (FPM) emissions for compliance with the Taconite MACT standard. The performance test shall be conducted on one representative stack of this group of similar emission units. Compliance with the standard is based on the flow weighted average concentration of particulate matter discharged to the atmosphere from all affected Finished Pellet Handling Sources (see the requirements for GP 017).  Performance test calculation procedures shall be consistent with 40 CFR Section 63.9621(b) Performance Test: due before end of each calendar 60 months starting 04/28/2007	40 CFR Section 63.9620(a); 40 CFR Section 63.9621(b); 40 CFR Section 63.9634(b)(2);

**TABLE A: LIMITS AND OTHER REQUIREMENTS**

Facility Name: ArcelorMittal Minorca Mine Inc

Permit Number: 13700062 - 003

<p>Performance Test for IPER: to determine Total Particulate Matter and Opacity emissions to demonstrate compliance with the IPER emission limitations. The performance test shall be conducted on one representative stack of this group of similar emission units. Performance Test: due before end of each calendar 60 months starting 04/28/2007</p>	<p>40 CFR Section 64.3: CAM and Minn. R. 7017.0200; Minn. R. 7017.2020, subp. 1; Minn. R. 7017.2025, subp. 3</p>
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**TABLE A: LIMITS AND OTHER REQUIREMENTS**

A-23 03/29/11

Facility Name: ArcelorMittal Minorca Mine Inc  
Permit Number: 13700062 - 003

**Subject Item: GP 015 Taconite MACT Sources (40 CFR Part 63 Subpart RRRRR)**

**Associated Items:**

- CE 001 Venturi Scrubber
- CE 002 Fabric Filter - Low Temperature, i.e., T<180 Degrees F
- CE 003 Fabric Filter - Low Temperature, i.e., T<180 Degrees F
- CE 004 Venturi Scrubber
- CE 005 Venturi Scrubber
- CE 006 Venturi Scrubber
- CE 007 Venturi Scrubber
- CE 008 Venturi Scrubber
- CE 009 Fabric Filter - Low Temperature, i.e., T<180 Degrees F
- CE 010 Fabric Filter - Low Temperature, i.e., T<180 Degrees F
- CE 011 Venturi Scrubber
- CE 014 Venturi Scrubber
- CE 015 Venturi Scrubber
- CE 016 Venturi Scrubber
- CE 017 Venturi Scrubber
- CE 018 Wet Scrubber-Medium Efficiency w/o Lime
- CE 019 Wet Scrubber-Medium Efficiency w/o Lime
- CE 020 Wet Scrubber-Medium Efficiency w/o Lime
- CE 021 Wet Scrubber-Medium Efficiency w/o Lime
- CE 024 Wet Scrubber-Medium Efficiency w/o Lime
- CE 028 Fabric Filter - Low Temperature, i.e., T<180 Degrees F
- EU 001 Primary Crusher System
- EU 002 Drop Onto Coarse Ore Pile Conveyor
- EU 003 Secondary Crusher System
- EU 004 Secondary Crusher System
- EU 005 Secondary Crusher System
- EU 006 Outside Ore Transfer
- EU 007 Tertiary Crusher System
- EU 008 Tertiary Crusher System
- EU 009 Tertiary Crusher System
- EU 010 Tertiary Crusher System
- EU 011 Fine Ore Drop Onto Two Underfeed Belts
- EU 012 Fine Ore Drop Onto Intermediate Conveyor
- EU 013 Fine Ore Drop Onto Rod Mill Bin Conveyor
- EU 014 Fine Ore Drop Onto Rod Mill Bin Feeder
- EU 015 Fine Ore Drop Into Rod Mill Bin
- EU 016 Fine Ore Drop Onto Internal Conveyors
- EU 017 Fine Ore Drop Into Rod Mills
- EU 021 Pellet Drop Onto Internal Hearth Layer Conveyor
- EU 022 Drop Into Hearth Layer Bin
- EU 023 Grate Feed
- EU 024 Drop Into Hearth Layer Screen
- EU 025 Drop Onto Conveyor to Hearth Layer Bin
- EU 026 Indurating Machine
- EU 027 Machine Discharge

**TABLE A: LIMITS AND OTHER REQUIREMENTS**

Facility Name: ArcelorMittal Minorca Mine Inc

Permit Number: 13700062 - 003

- Associated Items:**
- EU 028 Drop Onto Conveyor to Pellet Splitter Bin
  - EU 029 Drop Into Pellet Splitter Bin
  - EU 030 Drop Onto Product Splitter Bin Conveyors
  - EU 031 Drop In PI-P2 Transfer House
  - EU 032 Drop Onto P3 Pellet Pile Underfeed Conveyor
  - FS 007 PM10 - Haulage Truck Operation
  - FS 008 PM10 - Tailings Truck Operation
  - FS 009 PM10 - Wind Erosion of Laurentian Pit Waste Rock and Overburden Piles
  - FS 011 PM10 - Wind Erosion of Tailings Basin
  - FS 012 PM10 - Ore Dump Into Primary Crusher
  - FS 013 PM10 - Coarse Ore Pile Drop
  - FS 014 PM10 - Wind Erosion of Coarse Ore Pile
  - FS 015 PM10 - Fine Ore Pile Drop
  - FS 016 PM10 - Wind Erosion of Fine Ore Pile
  - FS 017 PM10 - Taconite Pellet Pile Drop
  - FS 018 PM10 - Wind Erosion of Taconite Pile
  - FS 019 PM10 - Pellet Loadout Drop
  - FS 020 PM10 - Wind Erosion of Fluxstone Pile
  - SV 001 Primary Crusher System
  - SV 002 Primary Crusher System
  - SV 003 Drop onto Coarse Ore Pile Conveyor
  - SV 004 Secondary Crusher System
  - SV 005 Secondary Crusher System
  - SV 006 Tertiary Crusher System
  - SV 007 Tertiary Crusher System
  - SV 008 Tertiary Crusher System
  - SV 009 Outside Ore Transfer
  - SV 010 Fine Ore Drop Onto Two Underbelt Feeds
  - SV 011 Fine Ore Drop Onto Rod Mill Bin Conveyor
  - SV 014 Indurating Machine
  - SV 015 Indurating Machine
  - SV 016 Indurating Machine
  - SV 017 Indurating Machine
  - SV 018 Machine Discharge
  - SV 019 Pellet Drop Onto Internal Hearth Layer Conveyor
  - SV 020 Drop into Hearth Layer Screen
  - SV 021 Drop Into Pellet Splitter Bin
  - SV 022 Drop Onto P3 Pellet Pile Underfeed Conveyor

What to do	Why to do it
Taconite MACT Applicability: This group contains all emission units which are subject to the Taconite MACT (40 CFR Part 63 Subpart RRRRR).	40 CFR Part 63 Subpart RRRRR
Taconite MACT Requirements: The requirements for Taconite MACT which are contained in this permit are consistent with the Taconite MACT requirements as of the date of the permit issuance. However, if the Taconite MACT requirements change based on EPA rule-making, the updated requirements shall be applicable to the facility based on the compliance date as set by the updated regulation.	40 CFR Part 63 Subpart RRRRR

**TABLE A: LIMITS AND OTHER REQUIREMENTS**

Facility Name: ArcelorMittal Minorca Mine Inc  
 Permit Number: 13700062 - 003

Taconite MACT Compliance Date: Compliance with the Taconite MACT for existing sources (startup on or before October 30, 2003) is required by October 30, 2006. Compliance for new sources (startup after before October 30, 2003) is required upon initial startup.	40 CFR Section 63.9583
NESHAP GENERAL PROVISIONS	hdr
Proper Operation and Maintenance: At all times, including periods of startup, shutdown and malfunction, the Permittee shall operate and maintain the emission unit(s) subject to the MACT standard and its associated air pollution control and monitoring equipment in a manner consistent with safety and good air pollution control practices for minimizing emissions at least to the levels required by all relevant standards.	40 CFR Section 63.6(e)(1)(i);40 CFR Section 63.9600(a); 40 CFR Section 63.9636(a)(1); Minn. R. 7011.7000
The non-opacity emission standards apply at all times except during periods of startup, shutdown or malfunction.	40 CFR Section 63.6(f); Minn. R. 7011.7000
Prior to construction or reconstruction of an "affected source" under the promulgated MACT standards, the Permittee must apply for and obtain an air emission permit.	40 CFR Section 63.5(b)(3); Minn. R. 7011.7000
INITIAL COMPLIANCE DEMONSTRATION	hdr
Initial Compliance Demonstration: for each work practice standard and each operation and maintenance requirement for which initial compliance is not demonstrated by a performance test, you must demonstrate compliance within 30 days of the compliance date (November 29, 2006).	40 CFR Section 63.9620(h)
Initial Compliance Demonstration for Emission Limitations: to demonstrate initial compliance with the Taconite MACT emission limitations, the facility must: (a) Conduct performance testing to demonstrate compliance with the emission limits (Table 1 of Subp. RRRRR; ) and (b) Meet the applicable operating limits (1) For ore crushing and handling, the flow-weighted mean concentration of particulate matter, determined according to the procedures in 40 CFR Sections 63.9620(a) and 63.9621(b), must not exceed the emission limits in Table 1 to this subpart. (2) For indurating furnaces, the flow-weighted mean concentration of particulate matter, determined according to the procedures in 40 CFR Sections 63.9620(b) and 63.9621(c), must not exceed the emission limits in Table 1 to this subpart.	40 CFR Section 63.9623 (continued below)
(continued from above) (3) For finished pellet handling, the flow-weighted mean concentration of particulate matter, determined according to the procedures in 40 CFR Sections 63.9620(c) and 63.9621(b), must not exceed the emission limits in Table 1 to this subpart.  (b) Meet the applicable operating limits: (1) For each wet scrubber subject to performance testing in 40 CFR Section 63.9620 and operating limits for pressure drop and scrubber water flow rate in 40 CFR Section 63.9590(b)(1), you have established appropriate site-specific operating limits and have a record of the pressure drop and scrubber water flow rate measured during the performance test in accordance with 40 CFR Section 63.9622(a). (c) For each emission limitation and operating limit that applies to you, you must submit a notification of compliance status according to 40 CFR Section 63.9640(e).	(continued from above) 40 CFR Section 63.9623
For scrubbers subject to performance testing in 40 CFR Section 63.9620 and operating limits for scrubber water flow rate and either fan amperage or pressure drop in 40 CFR Section 63.9590(b)(1)or(2)you must establish site-specific operating limits according to these procedures: (1) Using the CPMS required in 40 CFR Section 63.9631(b), measure and record the scrubber water flow rate and either the fan amperage or pressure drop every 15 minutes during each run of the particulate matter performance test. (2) Calculate and record the average scrubber water flow rate and either the average fan amperage or average pressure drop for each individual test run. Your operating limits are established as the lowest average scrubber water flow rate and either the lowest average fan amperage or pressure drop value corresponding to any of the three test runs.	40 CFR Section 63.9622(a) and (b)
Operating limits may be changed for any air pollution control device as long as you meet the requirements in paragraphs (f)(1) through (3) of this section. (1) Submit a written notification to the Administrator of your request to conduct a new performance test to revise the operating limit. (2) Conduct a performance test to demonstrate compliance with the applicable emission limitation in Table 1 to this subpart. (3) Establish revised operating limits according to the applicable procedures in paragraphs (a) through (e) of this section.	40 CFR Section 63.9622(f)

**TABLE A: LIMITS AND OTHER REQUIREMENTS**

Facility Name: ArcelorMittal Minorca Mine Inc  
 Permit Number: 13700062 - 003

<p>Performance Test Requirements: Compliance with the Taconite MACT standard is based on 40 CFR Part 60 Appendix A method 5, 5d, or 17. The performance test must consist of three separate runs. Each run must be conducted for a minimum of 2 hours. The average particulate matter concentration from the three runs will be used to determine compliance, as shown in Equation 1 of this section.</p>	<p>40 CFR Section 63.9621(b)</p>
<p>Initial Compliance Demonstration for Work Practice Standards: to demonstrate initial compliance with the Taconite MACT work practice standards, the facility must:                  (a) Prepare a fugitive dust control plan according to the MACT requirements;                  (b) Submit the fugitive dust control plan to the MPCA for approval; and                  (c) Implement each control practice according to the fugitive dust control plan.</p>	<p>40 CFR Section 63.9624</p>
<p>Fugitive Dust Control Plan: Prepare and operate in compliance at all times with a Fugitive Dust Control Plan for emissions from stockpiles, material transfer points, plant roadways, tailings basin, pellet loading areas, and yard areas. The plan was submitted to MPCA for approval by October 30, 2006. The current plan must be maintained onsite and available for inspection by MPCA upon request. The plan must be kept for the life of the affected source or until the source is no longer subject to the requirements of the Taconite MACT.</p> <p>The Taconite MACT standard allows the use of the existing fugitive dust control plan as required by the Title V air permit because it meets the requirements of this section and has been submitted and approved as part of the facility Title V permit. See GP 011 of this permit.</p>	<p>40 CFR Section 63.9591; 40 CFR Section 63.9635; 40 CFR Part 70</p>
<p>Operation and Maintenance Plan: Prepare and at all times operate according to a written Operation and Maintenance (O&amp;M) Plan for each control device used for compliance with the Taconite MACT and for each indurating furnace subject to Good Combustion Practices (GCP). The O&amp;M Plan must contain four general components:</p> <ol style="list-style-type: none"> <li>(1) Preventative maintenance for each control device;</li> <li>(2) Corrective action procedures for bag leak detection systems;</li> <li>(3) Corrective action procedures for continuous parametric monitoring systems (CPMS) for air pollution control devices except baghouses; and</li> <li>(4) Good combustion practices for each indurating furnace.</li> </ol> <p>(continued below)</p>	<p>40 CFR Section 63.9600(b); 40 CFR Section 63.9625; 40 CFR Section 63.9636(b)                  (continued below)</p>
<p>(continued from above)</p> <p>The plan was submitted to MPCA for approval by October 30, 2006. Revisions to the plan must also be submitted and approved by MPCA prior to incorporating the changes.</p> <p>The current plan must be maintained onsite and available for inspection by MPCA upon request. You must keep the plan for the life of the affected source or until the source is no longer subject to the requirements of the Taconite MACT.</p>	<p>(continued from above)</p> <p>40 CFR Section 63.9600(b); 40 CFR Section 63.9625;</p>
<p>OPERATION AND MAINTENANCE</p>	<p>hdr</p>
<p>OPERATION AND MAINTENANCE: Record all information needed to document conformance with these requirements.</p>	<p>40 CFR Section 63.9600(b); 40 CFR Section 63.9636(a); Minn. R. 7007.0800 subp. 2</p>
<p>Corrective action procedures for bag leak detection systems. In the event a bag leak detection system alarm is triggered, you must initiate corrective action to determine the cause of the alarm within 1 hour of the alarm, initiate corrective action to correct the cause of the problem within 24 hours of the alarm, and complete the corrective action as soon as practicable. Corrective actions may include, but are not limited to:</p> <ol style="list-style-type: none"> <li>(i) Inspecting the baghouse for air leaks, torn or broken bags or filter media, or any other condition that may cause an increase in emissions.</li> <li>(ii) Sealing off defective bags or filter media.</li> <li>(iii) Replacing defective bags or filter media or otherwise repairing the control device.</li> <li>(iv) Sealing off a defective baghouse compartment.</li> <li>(v) Cleaning the bag leak detection system probe, or otherwise repairing the bag leak detection system.</li> <li>(vi) Adjusting the process operation producing the particulate emissions.</li> </ol>	<p>40 CFR Section 63.9600(b)(2); 40 CFR Section 63.9636(a)(2)</p>

**TABLE A: LIMITS AND OTHER REQUIREMENTS**

Facility Name: ArcelorMittal Minorca Mine Inc

Permit Number: 13700062 - 003

<p>Good combustion practices for indurating furnaces. You must identify and implement a set of site-specific GCP for each type of indurating furnace at your plant. These GCP should correspond to your standard operating procedures for maintaining the proper and efficient combustion within each indurating furnace. Good combustion practices include, but are not limited to:</p> <ul style="list-style-type: none"> <li>(i) Proper operating conditions for each indurating furnace (e.g., minimum combustion temperature, maximum carbon monoxide concentration in the furnace exhaust gases, burner alignment, or proper fuel-air distribution/mixing).</li> <li>(ii) Routine inspection and preventative maintenance and corresponding schedules of each indurating furnace.</li> <li>(iii) Performance analyses of each indurating furnace.</li> <li>(iv) Keeping applicable operator logs.</li> <li>(v) Keeping applicable records to document compliance with each element.</li> </ul> <p>Record all information needed to document conformance with these requirements</p>	<p>40 CFR Section 63.9600(b)(4); 40 CFR Section 63.9636(a)(4)</p>
<p>(d) For each baghouse applied to meet any particulate emission limit in Table 1 to this subpart, you must demonstrate continuous compliance by completing the requirements in paragraphs (d)(1) and (2) of this section.</p> <p>(1) Maintaining records of the time you initiated corrective action in the event of a bag leak detection system alarm, the corrective action(s) taken, and the date on which corrective action was completed.</p> <p>(2) Inspecting and maintaining each baghouse according to the requirements in 40 CFR Section 63.9631(a)(1) through (8) and recording all information needed to document conformance with these requirements. If you increase or decrease the sensitivity of the bag leak detection system beyond the limits specified in your site-specific monitoring plan, you must include a copy of the required written certification by a responsible official in the next semiannual compliance report.</p>	<p>40 CFR Section 63.9634(d)</p>
<p>(e) For each wet scrubber subject to the operating limits for pressure drop and scrubber water flow rate in 40 CFR Section 63.9590(b)(1), you must demonstrate continuous compliance by completing the requirements of paragraphs (e)(1) through (4) of this section.</p> <p>(1) Maintaining the daily average pressure drop and daily average scrubber water flow rate at or above the minimum levels established during the initial or subsequent performance test.</p> <p>(2) Operating and maintaining each wet scrubber CPMS according to 40 CFR Section 63.9632(b) and recording all information needed to document conformance with these requirements.</p> <p>(continued below)</p>	<p>40 CFR Section 63.9634(e) (continued below)</p>
<p>(continued from above)</p> <p>(3) Collecting and reducing monitoring data for pressure drop and scrubber water flow rate according to 40 CFR Section 63.9632(c) and recording all information needed to document conformance with these requirements.</p> <p>(4) If the daily average pressure drop or daily average scrubber water flow rate is below the operating limits established for a corresponding emission unit or group of similar emission units, you must then follow the corrective action procedures in paragraph (j) of this section.</p>	<p>(continued from above) 40 CFR Section 63.9634(e)</p>
<p>f) For each dynamic wet scrubber subject to the operating limits for scrubber water flow rate and either the fan amperage or pressure drop in 40 CFR Section 63.9590(b)(2), you must demonstrate continuous compliance by completing the requirements of paragraphs (f)(1) through (4) of this section.</p> <p>(1) Maintaining the daily average scrubber water flow rate and either the daily average fan amperage or the daily average pressure drop at or above the minimum levels established during the initial or subsequent performance test.</p> <p>(2) Operating and maintaining each dynamic wet scrubber CPMS according to 40 CFR Section 63.9632(b) and recording all information needed to document conformance with these requirements.</p> <p>(continued below)</p>	<p>40 CFR Section 63.9634(f) (continued below)</p>
<p>(continued from above)</p> <p>(3) Collecting and reducing monitoring data for scrubber water flow rate and either fan amperage or pressure drop according to 40 CFR Section 63.9632(c) and recording all information needed to document conformance with these requirements.</p> <p>(4) If the daily average scrubber water flow rate, daily average fan amperage, or daily average pressure drop is below the operating limits established for a corresponding emission unit or group of similar emission units, you must then follow the corrective action procedures in paragraph (j) of this section.</p>	<p>(continued from above) 40 CFR Section 63.9634(f)</p>
<p>STARTUP, SHUTDOWNS, AND MALFUNCTIONS</p>	<p>hdr</p>



**TABLE A: LIMITS AND OTHER REQUIREMENTS**

Facility Name: ArcelorMittal Minorca Mine Inc  
 Permit Number: 13700062 - 003

<p>Malfunions: Malfunions shall be corrected as soon as practicable after their occurrence.</p>	<p>40 CFR Section 63.6(e)(1)(ii); Minn. R. 7011.7000</p>
<p>Startup, Shutdown, and Malfunction Plan: Develop and implement a startup, shutdown, and malfunction (SSM) Plan for each of the emission units, including associated control and monitoring equipment, subject to Maximum Control Technology Standards by the applicable MACT standard compliance date. The SSM Plan shall be prepared in accordance with 40 CFR Section 63.6(e)(3) and include requirements specified therein. The SSM Plan must be located at the plant site and must be kept updated. When the SSM Plan is updated, the Permittee must keep all previous versions of the SSM Plan for a period of 5 years. The Permittee must submit the SSM Plan when required.</p>	<p>40 CFR Section 63.9610; 40 CFR Section 63.6(e)(3)</p>
<p>When actions taken by the Permittee during a startup, shutdown, or malfunction (including actions taken to correct a malfunction) are consistent with the procedures specified in the SSM Plan, the Permittee must keep records for that event which demonstrate that the procedures specified in the plan were followed. These records may take the form of a checklist, or other effective form of record keeping that confirms conformance with the SSM Plan for that event. In addition, the Permittee must keep records of these events as specified in 40 CFR Section 63.10(b). Furthermore, the Permittee shall confirm that actions taken during the relevant reporting period during periods of startup, shutdown, and malfunction were consistent with the SSM Plan in the Semi-Annual startup, shutdown, and malfunction report required in 40 CFR Section 63.10(d)(5).</p>	<p>40 CFR Section 63.6(e)(3)(iii); Minn. R. 7011.7000</p>
<p>(1) Consistent with 40 CFR Section 63.6(e) and 40 CFR Section 63.7(e)(1), deviations that occur during a period of startup, shutdown, or malfunction are not violations if you demonstrate to the Administrator's satisfaction that you were operating in accordance with 40 CFR Section 63.6(e)(1).</p>	<p>40 CFR Section 63.9637(b)(1)</p>
<p>Recordkeeping: The Permittee shall maintain files of all information required by 40 CFR part 63 in a form suitable and readily available for expeditious inspection and review. The files should be retained for at least 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. Only the most recent two years of information must be kept on site.</p>	<p>40 CFR Section 63.10(b)(1); Minn. R. 7019.0100, subp. 2</p>
<p>The Permittee shall maintain, at a minimum, the following information in the files:              1) the occurrence and duration of each startup or shutdown when the startup or shutdown causes the source to exceed any applicable emission limitation in the relevant emission standards;              2) the occurrence and duration of each malfunction of the emission unit or air pollution control or monitoring equipment;              3) all maintenance performed on the pollution control and monitoring equipment;              4) actions taken during periods of startup or shutdown when the source exceeded applicable emission limits in a relevant standard and when such actions are different from the procedures specified in the affected source's SSM Plan; or actions taken during period of malfunction when the actions taken are different from the procedures specified in the SSM Plan;</p>	<p>40 CFR Section 63.10(b)(1); Minn. R. 7019.0100, subp. 2              40 CFR Section 63.10(b)(2); Minn. R. 7019.0100, subp. 2              (continued below)</p>
<p>(continued from above)              5) all information necessary to demonstrate conformance with the affected source's SSM Plan when all actions taken during SSM are consistent with procedures specified in the SSM Plan;              6) each period during which a continuous monitoring system (CMS) is malfunctioning or inoperative;              7) all required measurements needed to demonstrate compliance with a relevant standard;              8) all results of performance test, CMS performance evaluations, and opacity and visible emission observations;              9) all measurements as may be necessary to determine the conditions of performance tests and performance evaluations;              10) all CMS calibration checks;              11) all adjustments and maintenance performed on CMS;              12) any information demonstrating whether a source is meeting the requirements for a waiver of record keeping or reporting requirements under this part;              13) all documents supporting initial notifications and notifications of compliance status.)</p>	<p>(continued from above)              40 CFR Section 63.10(b)(1); Minn. R. 7019.0100, subp. 2              40 CFR Section 63.10(b)(2); Minn. R. 7019.0100, subp. 2</p>
<p>PERFORMANCE TESTING</p>	<p>hdr</p>
<p>Performance test methods and other procedures: The Permittee shall conduct each performance test according to the requirements in 40 CFR Section 63.7(e)(1) and the applicable requirements in 40 CFR Section 63.9621(b) and (c) for purposes of Taconite NESHAP.</p>	<p>40 CFR Section 63.9621(a); Minn. R. 7011. 8030</p>
<p>BAG LEAK DETECTION SYSTEMS</p>	<p>hdr</p>

**TABLE A: LIMITS AND OTHER REQUIREMENTS**

Facility Name: ArcelorMittal Minorca Mine Inc  
 Permit Number: 13700062 - 003

<p>For each baghouse applied to meet any particulate matter emission limit in Table 1 to this subpart, you must install, operate, and maintain a bag leak detection system to monitor the relative change in particulate matter loadings according to the requirements in 40 CFR Section 63.9632(a)</p>	<p>40 CFR Section 63.9631(a); 40 CFR Section 63.9634(d); Minn. R. 7007.0800 subp. 2</p>
<p>Bag Leak Detection System Inspections: Conduct inspections of the bag leak detection system as follows:                  (1) Monitor the pressure drop across each baghouse cell each day to ensure it is within the normal operating range.                  (2) Weekly visual inspections or other means to confirm that dust is being removed from hoppers;                  (3) Daily check of compressed air supply for pulse-jet baghouses;                  (4) Monitor cleaning cycles to ensure proper operation using an appropriate methodology.                  (5) Monthly visual inspections or equivalent means to check bag cleaning mechanisms for proper operation;                  (6) Monthly visual checks of bag tension on reverse air and shaker-type baghouses to ensure that bags are not kinked (knead or bent) or lying on their sides (not required for self-tensioning (spring-loaded) devices).                  (7) Quarterly visual inspections of the baghouse interior for air leaks to confirm the physical integrity of the baghouse; and                  (8) Quarterly visual inspections, vibration detectors, or equivalent m</p>	<p>40 CFR Section 63.9631(a); 40 CFR Section 63.9634(d)</p>
<p>Bag Leak Detection System Requirements: Each baghouse used for compliance with the Taconite MACT must meet the following requirements:                  (1) Certified by manufacturer to detect emissions of 0.0044 gr/acf or less;                  (2) Provide output of relative changes in particulate matter loading; and                  (3) Alarm when an increase in particulate loading is detected over the applicable alarm level.</p>	<p>40 CFR Section 63.9632(a)(1)-(3)</p>
<p>Bag Leak Detection System Monitoring Plan: For each baghouse used for compliance with the Taconite MACT, develop and implement a Bag Leak Detection System Monitoring Plan. The plan shall be submitted to MPCA for approval. The plan shall describe:                  (i) Installation of the bag leak detection system;                  (ii) Initial/periodic adjustment and establishment of alarm set point;                  (iii) Operation and quality assurance procedures;                  (iv) Maintenance program, including routine maintenance schedule and spare parts inventory list; and                  (v) Data recording and storage.</p> <p>For each bag leak detection system that operates based on the triboelectric effect, the monitoring plan shall be consistent with the recommendations contained in the U.S. Environmental Protection Agency (U.S. EPA) guidance document, <u>Fabric Filter Bag Leak Detection Guidance</u> (EPA 454/R-98-015).</p>	<p>40 CFR Section 63.9632(a)(4)</p>
<p>(5) To make the initial adjustment of the system, establish the baseline output by adjusting the sensitivity (range) and the averaging period of the device. Then, establish the alarm set points and the alarm delay time (if applicable).                  (6) Following initial adjustment, do not adjust averaging period, alarm set point, or alarm delay time, without approval from the Administrator except as provided for in paragraph (a)(6)(i) of this section.                  (i) Once per quarter, you may adjust the sensitivity of the bag leak detection system to account for seasonal effects, including temperature and humidity, according to the procedures identified in the site-specific monitoring plan required under paragraph (a)(4) of this section.                  (7) Where multiple detectors are required, the system's instrumentation and alarm may be shared among detectors.                  (8) The bag leak detector sensor must be installed downstream of the baghouse and upstream of any wet scrubber.</p>	<p>40 CFR Section 63.9632(a)(5)-(8)</p>
<p>MONITORING</p>	<p>hdr</p>
<p>Operation and maintenance of continuous monitoring systems. The Permittee shall maintain and operate each CMS in a manner consistent with good air pollution control practices. The owner or operator must:                  - Maintain and operate each CMS as specified in section 40 CFR Section 63.6(e)(1).                  - Keep the necessary parts for routine repairs readily available.                  - Develop a written SSM Plan for each CMS as specified in 40 CFR Section 63.6(e)(3).</p>	<p>40 CFR Section 63.8(c)(1); Minn. R. 7017.1010, subp. 2</p>

**TABLE A: LIMITS AND OTHER REQUIREMENTS**

Facility Name: ArcelorMittal Minorca Mine Inc  
 Permit Number: 13700062 - 003

<p>All CMS must be installed such that representative measures of emissions or process parameters from the affected source are obtained. In addition, CEMS must be located according to procedures contained in the applicable performance specification(s). The read out, or other indication of operation, from any CMS required for compliance with the emission standard must be readily accessible on site for operational control or inspection by the operator of the equipment.</p>	<p>40 CFR Section 63.8(c)(1); Minn. R. 7017.1010, subp. 2</p>
<p>All CMS shall be installed, operational, and the data verified prior to or in conjunction with conducting performance tests under 40 CFR Section 63.7. Except for system breakdowns, out-of-control periods, repairs, maintenance periods, calibration checks, and zero (low-level) and high-level calibration drift adjustments, all CMS, including COMS and CEMS, shall be in continuous operation and shall complete a minimum of one cycle of operation (sampling, analyzing, and data recording) for each successive 15-minute period.</p>	<p>40 CFR Section 63.8(c)(1); Minn. R. 7017.1010, subp. 2</p>
<p>Continuous Parametric Monitoring Requirements: All continuous parametric monitoring systems (CPMS) used for compliance with the Taconite MACT shall meet the following requirements:              (1) Complete a minimum of one cycle of operation for each successive 15-minute period and must have valid data for at least 95 percent of every daily averaging period;              (2) Determine and record the daily average of all recorded readings; and              (3) Conduct a performance evaluation of each CPMS in accordance with the site-specific monitoring plan.</p>	<p>40 CFR Section 63.9632(c) and (d)</p>
<p>General Monitoring Requirements: except for monitoring malfunctions, associated repairs, and required quality assurance (calibrations, zero/span checks, etc.), monitoring shall be continuous at all times when the source is operating. You may not use data collected during malfunctions, repairs, and QA/QC to fulfill a data availability requirement or to assess compliance. You must use all the data collected during all other periods in assessing compliance.</p>	<p>40 CFR Section 63.9633</p>
<p>Site Specific Monitoring Plan: Develop and implement a site-specific monitoring plan for all continuous parametric monitoring systems required by the Taconite MACT. The plan shall be available for inspection by MPCA upon request. The plan shall document:              (1) Installation of the CPMS is representative of the stream being measured;              (2) Performance and equipment specifications;              (3) Performance evaluation procedures and acceptance criteria (e.g., calibrations);              (4) Ongoing operation and maintenance procedures;              (5) Ongoing data quality assurance procedures;              (6) Ongoing recordkeeping and reporting procedures; and              (7) Corrective action procedures.</p>	<p>40 CFR Section 63.9632(b) and (e);              40 CFR Section 63.8(d)(2) and (3); 7017.1010, subp. 2</p>
<p>The Permittee shall develop and submit to the Commissioner for approval upon request a site-specific performance evaluation test plan for the CMS performance evaluation required in paragraph 40 CFR Section 63.8(e)(3)(i). The quality control program shall include, at a minimum, a written protocol that describes procedures for each of the following operations:              (i) Initial and any subsequent calibration of the CMS;              (ii) Determination and adjustment of the calibration drift of the CMS;              (iii) Preventive maintenance of the CMS, including spare parts inventory;              (iv) Data recording, calculations, and reporting;              (v) Accuracy audit procedures, including sampling and analysis methods; and              (vi) Program of corrective action for a malfunctioning CMS.              The Permittee shall keep these written procedures on record for the life of the affected source or until the affected source is no longer subject to the provisions of this part.</p>	<p>40 CFR Section 63.8(d)(2) and (3); 7017.1010, subp. 2</p>
<p>Notification of performance evaluation. The Permittee shall notify the Commissioner in writing of the date of the performance evaluation simultaneously with the notification of the performance test date required under 40 CFR Section 63.7(b) or at least 60 days prior to the date the performance evaluation is scheduled to begin if no performance test is required.</p>	<p>40 CFR Section 63.8(e)(2); Minn.R. 7017.1010, subp. 2</p>
<p>The Permittee shall develop and submit a site-specific performance evaluation test plan to the Commissioner for approval upon request in accordance with 40 CFR Section 63.8(e)(3)(i).</p>	<p>40 CFR Section 63.8(e)(3)(i); Minn.R. 7017.1010, subp. 2</p>
<p>The Permittee shall conduct a performance evaluation of a required CMS during any performance test required under 40 CFR Section 63.7 in accordance with the applicable performance specification as specified in the relevant standard. If a performance test is not required, or the requirement for a performance test has been waived under section 40 CFR Section 63.7(h), the Permittee shall conduct the performance evaluation not later than 180 days after the appropriate compliance date.</p>	<p>40 CFR Section 63.8(e)(4); Minn.R. 7017.1010, subp. 2</p>

**TABLE A: LIMITS AND OTHER REQUIREMENTS**

Facility Name: ArcelorMittal Minorca Mine Inc  
 Permit Number: 13700062 - 003

<p>The Permittee shall submit to the Commissioner a copy of a written report of the results of the performance evaluation simultaneously with the results of the performance test required under 40 CFR Section 63.7 or within 60 days of completion of the performance evaluation if no test is required.</p>	<p>40 CFR Section 63.8(e)(5); 40 CFR Section 63.10(e)(2); Minn.R. 7017.1010, subp. 2; Minn. R. 7019.0100, subp. 2</p>
<p>Reduction of monitoring data. The Permittee must reduce the monitoring data as specified in 40 CFR Section 63.8(g).</p>	<p>40 CFR Section 63.8(g); Minn.R. 7017.1010, subp. 2</p>
<p>TACONITE MACT FUGITIVE DUST</p>	<p>hdr</p>
<p>The fugitive dust control plan shall also contain requirements for compliance with the fugitive emission standards in 40 CFR Part 63 Subpart RRRRR for emissions from stockpiles, material transfer points, plant roadways, tailings basin, pellet loading areas, and yard areas. Additional information regarding compliance with the fugitive emissions requirements of Subpart RRRRR is presented in GP 015.</p>	<p>40 CFR Section 63.9591; 40 CFR Section 63.9635; 40 CFR Part 70</p>
<p>TACONITE MACT DEVIATIONS</p>	<p>hdr</p>
<p>Taconite MACT Deviations - Compliance Plans: The facility must report each instance in which it did not meet each emission limitation for the Taconite MACT. This includes:                   Periods of startup, shutdown, and malfunction as listed in the Startup, Shutdown, and Malfunction Plan;                   Instances in which the fugitive dust plan was not followed;                   Instances in which the requirements were not met for the Operation and Maintenance Plan; and                   Instances in which the requirements were not met for Good Combustion Practices.                   These instances are deviations from the Taconite MACT standard and must be reported in the Semi-Annual compliance report.</p>	<p>40 CFR Section 63.9637(a)</p>
<p>Continuous Monitoring: If the daily average operating parameter does not meet the corresponding operating limit, then the following procedures must be followed: (continued below)</p>	<p>40 CFR Section 63.9634(j) (continued below)</p>
<p>First Attempt: Initiate and complete initial corrective actions within 10 days and demonstrate that the initial corrective action was successful. During any period of corrective action, you must continue to monitor and record all required operating parameters for equipment that remains in operation. After 10 calendar days, measure and record the daily average operating parameter value for the emission unit or group of similar emission units on which corrective action was taken. After the initial corrective action, if the daily average operating parameter value for the emission unit or group of similar emission units meets the operating limit established for the corresponding unit or group, then the corrective action was successful and the emission unit or group of similar emission units is in compliance with the established operating limits. (continued below)</p>	<p>(continued from above) 40 CFR Section 63.9634(j) (continued below)</p>
<p>(continued from above)                  Second Attempt: If the initial corrective action was not successful, then you must complete additional corrective action within 10 days and demonstrate that the corrective action was successful. During any period of corrective action, you must continue to monitor and record all required operating parameters for equipment that remains in operation. After the second set of 10 calendar days allowed to implement corrective action, you must again measure and record the daily average operating parameter value for the emission unit or group of similar emission units. If the daily average operating parameter value for the emission unit or group of similar emission units meets the operating limit established for the corresponding unit or group, then the corrective action was successful and the emission unit or group of similar emission units is in compliance with the established operating limits. (continued below)</p>	<p>(continued from above) 40 CFR Section 63.9634(j) (continued below)</p>
<p>(continued from above)                  Third Attempt: If the second corrective action attempt is not successful, then you must repeat the repair attempts as detailed under Second Attempt until the corrective action is successful. The facility must also submit an Immediate Corrective Action Report to the MPCA as detailed in Table B of this permit. The facility must also conduct another performance test and report the third unsuccessful attempt at corrective action to the MPCA as a deviation.</p>	<p>(continued from above) 40 CFR Section 63.9634(j)</p>
<p>TACONITE MACT NOTIFICATIONS</p>	<p>hdr</p>
<p>The Permittee shall submit notifications required under 40 CFR Part 63 to the Commissioner. In addition, the Permittee shall send a copy of each notification to the appropriate Region V contact.</p>	<p>40 CFR Section 63.9(a); Minn.R. 7019.0100, subp. 2</p>

**TABLE A: LIMITS AND OTHER REQUIREMENTS**

Facility Name: ArcelorMittal Minorca Mine Inc  
 Permit Number: 13700062 - 003

<p>Notification of the Actual Date of Initial Startup: due 15 days after initial startup. Submit the name and number of each unit and the actual date of initial startup each unit.</p>	<p>40 CFR Section 63.9(b)(4)(v); Minn. R. 7019.0100</p>
<p>As specified in 40 CFR Section 63.9(b)(2), if you start up your affected source before October 30, 2003, you must submit your initial notification no later than 120 calendar days after October 30, 2003.</p>	<p>40 CFR Section 63.9640(b)</p>
<p>As specified in 40 CFR Section 63.9(b)(3), if you start up your new affected source on or after October 30, 2003, you must submit your initial notification no later than 120 calendar days after you become subject to this subpart.</p>	<p>40 CFR Section 63.9640(c)</p>
<p>Performance Test Notifications and Submittals                   Performance Test Notification (written): due 60 days before each Performance Test. However, if a performance test is being conducted on a representative emission unit for a group of emission units, notification is due 90 days prior to the scheduled test and the notification shall include justification that the units should be considered similar within the context of the Taconite MACT.                  Performance Test Plan: due 60 days before each Performance Test                  Performance Test Pre-Test Meeting: due 7 day before each Performance Test                  Performance Test Report: due 45 days after each Performance Test</p>	<p>40 CFR Section 63.7(b)(1); 40 CFR Section 63.7(c)(2)(iv); 40 CFR Section 63.7(g)(1); 40 CFR Section 63.9(e);                  (citation continues below)</p>
<p>(continued from above)                  The Notification of Compliance Status reports for Taconite MACT performance tests are due 60 days after the completion of the test. The report shall include the compliance calculations for the appropriate Taconite MACT emissions category, as appropriate (Ore Crushing and Handling Sources, Indurating Furnaces with multiple stacks, and Finished Pellet Handling Sources).                   Taconite MACT Annual Notification of Ore Crushing and Handling Flow Weighted Mean Concentration: After the initial performance tests have been completed, the flow weighted mean concentration for the Ore Crushing and Handling sources shall be recalculated after each applicable compliance test is conducted. The updated flow weighted mean concentration shall be reported to the MPCA within 60 days after the most recent compliance test.                  (continued below)</p>	<p>(citation continued from above)                  Minn. R. 7019.0100, subp. 2; Minn. R. 7017.2015, subp. 3; Minn. R. 7017.2030, subp. 1-4; Minn. R. 7017.2018 and Minn. R. 7017.2035, subp. 1-2; Table 1 of 40 CFR Part 63 Subpart RRRRR; 40 CFR Section 63.9590(a);                  (citation continues below)</p>
<p>(continued from above)                  Taconite MACT Annual Notification of Finished Pellet Handling Flow Weighted Mean Concentration: After the initial performance tests have been completed, the flow weighted mean concentration for the Finished Pellet Handling sources shall be recalculated after each applicable compliance test is conducted. The updated flow weighted mean concentration shall be reported to the MPCA within 60 days after the most recent compliance test.                  Performance Test Report - Microfiche Copy or CD: 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.</p>	<p>(citation continued from above)                  40 CFR Section 63.9620(a); 40 CFR Section 63.9620(g); 40 CFR Section 63.9621(b)(3); 40 CFR Section 63.9623(a)(1); 40 CFR Section 63.9634(b)(1); 40 CFR Section 63.9640(d); 40 CFR Section 63.9640(e)(2)</p>
<p>For each initial compliance demonstration that does not include a performance test, you must submit the notification of compliance status before the close of business on the 30th calendar day following completion of the initial compliance demonstration.</p>	<p>40 CFR Section 63.9640(e)(1)</p>
<p>The Permittee shall submit a written notification of the date the CMS performance evaluation under 40 CFR Section 63.8(e) is scheduled to begin, submitted simultaneously with the notification of the performance test date required under 40 CFR Section 63.7(b). If no performance test is required, the Permittee shall submit a written notification of the date of the performance evaluation at least 60 calendar days before the evaluation is scheduled to begin.</p>	<p>40 CFR Section 63.9(g)(1); Minn.R. 7019.0100, subp. 2</p>
<p>The Permittee shall submit a notification of compliance status to the Commissioner following completion of the relevant compliance demonstration activity specified in the relevant standard.</p>	<p>40 CFR Section 63.9(h)(3); Minn.R. 7019.0100, subp. 2</p>
<p>The Permittee shall submit actual HAP emissions data and other information to verify that information submitted as part of the permit application is correct as soon as available but no later than with the initial notification of compliance.</p>	<p>40 CFR Section 63.9(h)(5); Minn.R. 7019.0100, subp. 2</p>
<p>Change in information already provided. Any change in the information already provided under this 40 CFR section 63.9 shall be provided to the Commissioner in writing within 15 calendar days after the change.</p>	<p>40 CFR Section 63.9(j); Minn.R. 7019.0100, subp. 2</p>
<p>Excess Emissions and Continuous Monitoring System Report; The Permittee shall submit an excess emissions and CMS performance report and/or a summary report to the Commissioner by the 30th day following the end of each calendar half . The report(s) shall include all the information required and in accordance with 40 CFR Section 63.10(e)(3).</p>	<p>40 CFR Section 63.10(e)(3)(i) and (v); Minn. R. 7019.0100, subp. 2</p>

**TABLE A: LIMITS AND OTHER REQUIREMENTS**

Facility Name: ArcelorMittal Minorca Mine Inc  
 Permit Number: 13700062 - 003

<p>Taconite MACT Semi-Annual Compliance Reports: The facility must submit semi-annual compliance reports for the Taconite MACT. The report covering the period from January 1 through June 30 is due on July 31. The report covering the period from July 1 through December 31 is due on January 31. The report shall contain the following information:                  (1) Certification by responsible official;                  (2) Information regarding startups, shutdowns, and malfunctions;                  (3) Information regarding monitoring equipment out-of-control periods; if applicable; and                  (4) Information regarding deviations from the standard, if applicable.</p>	<p>40 CFR 63.9641(a) and (b)</p>
<p>Immediate startup, shutdown, and malfunction reports; Any time an action taken by the Permittee during a startup or shutdown or malfunction (that caused the source to exceed any applicable emission limitation in the relevant emission standards), that is not consistent with the procedures specified in the affected source's SSM Plan, the Permittee shall report the actions taken for that event within 2 working days after commencing the actions followed by a letter within 7 working days after the end of the event. The reports must be in accordance with 40 CFR Section 63.10(d)(5)(ii). The report shall include: (1) Certification of truth, accuracy, and completeness of report by a responsible official; (2) Explanation of circumstances of the event; (3) Reasons for not following the SSM Plan; and (4) Description of all excess emissions and/or CPMS monitoring exceedences which are believed to have occurred.</p>	<p>40 CFR Section 63.10(d)(5)(ii); 40 CFR Section 63.6(e)(3)(iv); Minn. R. 7019.0100, subp. 2; 40 CFR Section 63.9641(c)</p>
<p>(d) Part 70 monitoring report. If you have obtained a title V operating permit for an affected source pursuant to 40 CFR part 70 or 40 CFR part 71, you must report all deviations as defined in this subpart in the semiannual monitoring report required by 40 CFR 70.6(a)(3)(iii)(A) or 40 CFR 71.6(a)(3)(iii)(A). If you submit a compliance report for an affected source along with, or as part of, the semiannual monitoring report required by 40 CFR 70.6(a)(3)(iii)(A) or 40 CFR 71.6(a)(3)(iii)(A), and the compliance report includes all the required information concerning deviations from any emission limitation or operation and maintenance requirement in this subpart, submission of the compliance report satisfies any obligation to report the same deviations in the semiannual monitoring report. However, submission of a compliance report does not otherwise affect any obligation you may have to report deviations from permit requirements for an affected source to your permitting authority.</p>	<p>40 CFR Section 63.9641(d)</p>
<p>Immediate Corrective Action Report: After three unsuccessful attempts at applying corrective actions to an emission unit or emission groups, an immediate corrective action report must be submitted as to the MPCA within 5 calendar days of the third unsuccessful attempt at corrective action. The written report must state that a deviation has occurred and must document the types of corrective measures that have been taken to address the problem.</p>	<p>40 CFR Section 63.9634(j)(3) and (4); 40 Section CFR 63.9641(e)</p>
<p>MACT RECORDKEEPING</p>	<p>hdr</p>
<p>Taconite MACT Recordkeeping: Records must be maintained for 5 years, with at least 2 years maintained on site. Records include copies of all notifications and submittals; records regarding startups, shutdowns, and malfunctions; records of performance tests; and records regarding the continuous parametric monitoring systems. Your records must be in a form suitable and readily available for expeditious review, according to 40 CFR Section 63.10(b)(1). You must keep each record on site for at least 2 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record according to 40 CFR Section 63.10(b)(1). You can keep the records offsite for the remaining 3 years.</p>	<p>40 CFR Section 63.9642; 40 CFR Section 63.9643</p>
<p>The Permittee shall maintain, at a minimum, the following information in the files:                  1) the occurrence and duration of each startup, shutdown, or malfunction of operation;                  2) the occurrence and duration of each malfunction of the air pollution control equipment;                  3) all maintenance performed on the pollution control equipment;                  4) actions taken during periods of startup, shutdown, and malfunction when such actions are different from the procedures specified in the affected source's (SSMPSSM Plan). In this case, the Permittee shall report this action within 2 days of occurrence and follow by a written notification within 7 days of occurrence.                  5) all information necessary to demonstrate conformance with the affected source's SSM Plan and actions taken in accordance with SSM Plan;                  (continued below)</p>	<p>40 CFR Section 63.10(b)(2); Minn. R. 7019.0100, subp. 2                  (continued below)</p>

**TABLE A: LIMITS AND OTHER REQUIREMENTS**

Facility Name: ArcelorMittal Minorca Mine Inc  
 Permit Number: 13700062 - 003

<p>(continued from above)                  6) each period during which a CMS is malfunctioning or inoperative;                  7) all required measurements needed to demonstrate compliance with a relevant standard;                  8) all results of performance test, CMS performance evaluations, and opacity and visible emission observations;                  9) all measurements as may be necessary to determine the conditions of performance tests and performance evaluations;                  10) all CMS calibration checks;                  11) all adjustments and maintenance performed on CMS;                  12) any information demonstrating whether a source is meeting the requirements for a waiver of record keeping or reporting requirements under this part;                  13) all documents supporting initial notifications and notifications of compliance status.</p>	<p>(continued from above)                  40 CFR Section 63.10(b)(2); Minn. R. 7019.0100, subp. 2 (continued)</p>
<p>The Permittee shall maintain records for each CMS:                  1) All required CMS measurements;                  2) The date and time identifying each period during which the CMS was inoperative except for zero (low-level) and high-level checks;                  3) The date and time identifying each period during which the CMS was out of control;                  4) The specific identification (i.e., the date and time of commencement and completion) of each time period of excess emissions and parameter monitoring exceedances, that occurs during startups, shutdowns, and malfunctions of the affected source;                  5) The specific identification (i.e., the date and time of commencement and completion) of each time period of excess emissions and parameter monitoring exceedances that occurs during periods other than startups, shutdowns, and malfunctions of the affected source;                  (continued below)</p>	<p>40 CFR Section 63.10(c); Minn. R. 7019.0100, subp. 2 (continued below)</p>
<p>(continued from above)                  6) The nature and cause of any malfunction;                  7) The corrective action taken or preventive measures adopted;                  8) The nature of the repairs or adjustments to the CMS that was inoperative or out of control;                  9) The total process operating time during the reporting period; and                  10) All procedures that are part of a quality control program developed and implemented for CMS under 40 CFR Section 63.8(d).</p>	<p>(continued from above)                  40 CFR Section 63.10(c); Minn. R. 7019.0100, subp. 2</p>
<p>Reporting Requirements: Taconite MACT</p>	<p>hdr</p>
<p>Notification Requirements for Taconite MACT Performance Tests: Notification of intent to conduct a performance test for Taconite MACT compliance is due at least 60 days prior to the scheduled test. However, if a performance test is being conducted on a representative emission unit for a group of emission units, notification is due 90 days prior to the scheduled test and the notification shall include justification that the units should be considered similar within the context of the Taconite MACT.</p>	<p>40 CFR Section 63.7(b)(1); 40 CFR Section 63.9640(d); 40 CFR Section 63.9620(g)</p>
<p>Taconite MACT Notification of Compliance Status Reports for Performance Tests: The Notification of Compliance Status reports for Taconite MACT performance tests are due 60 days after the completion of the test. The report shall include the compliance calculations for the appropriate Taconite MACT emissions category, as appropriate (Ore Crushing and Handling Sources, Indurating Furnaces with multiple stacks, and Finished Pellet Handling Sources).</p>	<p>40 CFR Section 63.9640(e)(2);</p>
<p>Taconite MACT Annual Notification of Ore Crushing and Handling Flow Weighted Mean Concentration: After the initial performance tests have been completed, the flow weighted mean concentration for the Ore Crushing and Handling sources shall be recalculated after each applicable compliance test is conducted. The updated flow weighted mean concentration shall be reported to the MPCA within 60 days after the most recent compliance test.</p>	<p>40 CFR Section 63.9590(a); Table 1 of Part 63 Subpart RRRRR; 40 CFR Section 63.9620(a); 40 CFR Section 63.9621(b)(3); 40 CFR Section 63.9623(a)(1); 40 CFR Section 63.9634(b)(1)</p>
<p>Taconite MACT Annual Notification of Finished Pellet Handling Flow Weighted Mean Concentration: After the initial performance tests have been completed, the flow weighted mean concentration for the Finished Pellet Handling sources shall be recalculated after each applicable compliance test is conducted. The updated flow weighted mean concentration shall be reported to the MPCA within 60 days after the most recent compliance test.</p>	<p>40 CFR Section 63.9590(a); Table 1 of Part 63 Subpart RRRRR; 40 CFR Section 63.9620(c); 40 CFR Section 63.9621(b)(3); 40 CFR Section 63.9623(a)(3); 40 CFR Section 63.9634(b)(1)</p>

**TABLE A: LIMITS AND OTHER REQUIREMENTS**

Facility Name: ArcelorMittal Minorca Mine Inc

Permit Number: 13700062 - 003

<p>Taconite MACT Semi-Annual Compliance Reports: The facility must submit semi-annual compliance reports for the Taconite MACT. The report covering the period from January 1 through June 30 is due on July 31. The report covering the period from July 1 through December 31 is due on January 31. The report shall contain the following information:</p> <p>(1) Certification by responsible official;                  (2) Information regarding startups, shutdowns, and malfunctions;                  (3) Information regarding monitoring equipment out-of-control periods; if applicable; and                  (4) Information regarding deviations from the standard.</p>	<p>40 CFR Section 63.9641(a) and (b)</p>
<p>Immediate Startup, Shutdown, and Malfunction Reports: If a startup, shutdown, or malfunction event occurred that was not consistent with the Startup, Shutdown, and Malfunction Plan, the facility must submit an immediate notification, which consists of a phone call or a fax, to the MPCA within 2 working days after commencing action that is inconsistent with the SSM Plan.                  A written report to the MPCA is due within 7 working days after the end of the event. The report shall include:</p> <p>(1) Certification of truth, accuracy, and completeness of report by a responsible official;                  (2) Explanation of circumstances of the event;                  (3) Reasons for not following the SSM Plan; and                  (4) Description of all excess emissions and/or CPMS monitoring exceedences which are believed to have occurred.</p>	<p>40 CFR Section 63.9641(c); 40 CFR Section 63.6(e)(3)(iv); 40 CFR Section 63.10(d)(5)(ii):</p>
<p>Immediate Corrective Action Report: After three unsuccessful attempts at applying corrective actions to an emission unit or emission groups, an immediate corrective action report must be submitted as to the MPCA within 5 calendar days of the third unsuccessful attempt at corrective action. The written report must state that a deviation has occurred and must document the types of corrective measures that have been taken to address the problem.</p>	<p>40 CFR Section 63.9634(j)(3) and (4); 40 Section CFR 63.9641(e)</p>



**TABLE A: LIMITS AND OTHER REQUIREMENTS**

Facility Name: ArcelorMittal Minorca Mine Inc

Permit Number: 13700062 - 003

**Subject Item: GP 016 Ore Crushing and Handling MACT Sources (40 CFR Part 63 Subpart RRRRR)**

- Associated Items:**
- CE 001 Venturi Scrubber
  - CE 002 Fabric Filter - Low Temperature, i.e., T<180 Degrees F
  - CE 003 Fabric Filter - Low Temperature, i.e., T<180 Degrees F
  - CE 004 Venturi Scrubber
  - CE 005 Venturi Scrubber
  - CE 006 Venturi Scrubber
  - CE 007 Venturi Scrubber
  - CE 008 Venturi Scrubber
  - CE 009 Fabric Filter - Low Temperature, i.e., T<180 Degrees F
  - CE 010 Fabric Filter - Low Temperature, i.e., T<180 Degrees F
  - CE 011 Venturi Scrubber
  - EU 001 Primary Crusher System
  - EU 002 Drop Onto Coarse Ore Pile Conveyor
  - EU 003 Secondary Crusher System
  - EU 004 Secondary Crusher System
  - EU 005 Secondary Crusher System
  - EU 006 Outside Ore Transfer
  - EU 007 Tertiary Crusher System
  - EU 008 Tertiary Crusher System
  - EU 009 Tertiary Crusher System
  - EU 010 Tertiary Crusher System
  - EU 011 Fine Ore Drop Onto Two Underfeed Belts
  - EU 012 Fine Ore Drop Onto Intermediate Conveyor
  - EU 013 Fine Ore Drop Onto Rod Mill Bin Conveyor
  - EU 014 Fine Ore Drop Onto Rod Mill Bin Feeder
  - EU 015 Fine Ore Drop Into Rod Mill Bin
  - EU 016 Fine Ore Drop Onto Internal Conveyors
  - EU 017 Fine Ore Drop Into Rod Mills
  - SV 001 Primary Crusher System
  - SV 002 Primary Crusher System
  - SV 003 Drop onto Coarse Ore Pile Conveyor
  - SV 004 Secondary Crusher System
  - SV 005 Secondary Crusher System
  - SV 006 Tertiary Crusher System
  - SV 007 Tertiary Crusher System
  - SV 008 Tertiary Crusher System
  - SV 009 Outside Ore Transfer
  - SV 010 Fine Ore Drop Onto Two Underbelt Feeds
  - SV 011 Fine Ore Drop Onto Rod Mill Bin Conveyor

What to do	Why to do it
A. POLLUTANT LIMITS	hdr

**TABLE A: LIMITS AND OTHER REQUIREMENTS**

Facility Name: ArcelorMittal Minorca Mine Inc

Permit Number: 13700062 - 003

<p>Filterable Particulate Matter: less than or equal to 0.008 gr/dscf based on the Taconite MACT standard. Compliance with this standard is determined based on the flow weighted mean concentration for all Ore Crushing and Handling Sources (see the equation below). The flow weighted mean concentration shall be calculated as follows</p> $C_w = (C_1 \cdot Q_1 + C_2 \cdot Q_2 + \dots + C_n \cdot Q_n) / (Q_1 + Q_2 + \dots + Q_n)$ <p>Where:          C<sub>w</sub> = flow weighted mean concentration for all stacks within the group (gr/dscf)          C<sub>i</sub> = average concentration during the performance test for stack "i" (gr/dscf)          Q<sub>i</sub> = average volumetric flow rate of stack gas measured during the performance test for stack "i" (dscf/hr)          n = number of stacks in the Ore Crushing and Handling Group.</p> <p>(continued below)</p>	<p>40 CFR Section 63.9590(a); Table 1 of Part 63 Subpart RRRRR; 40 CFR Section 63.9620(a); 40 CFR Section 63.9621(b)(3); 40 CFR Section 63.9623(a)(1); 40 CFR Section 63.9634(b)(1)          (continued below)</p>
<p>(continued from above)</p> <p>Once the initial performance tests on all active Ore Crushing and Handling sources and groups have been completed, the permittee shall calculate the flow weighted mean concentration to determine compliance with the stack tests.</p> <p>After the initial performance tests have been completed, the flow weighted mean concentration for the Ore Crushing and Handling sources shall be recalculated after each applicable compliance test is conducted. The updated flow weighted mean concentration shall be reported to the MPCA within 60 days after the most recent compliance test.</p>	<p>(continued from above)          40 CFR Section 63.9590(a); Table 1 of Part 63 Subpart RRRRR; 40 CFR Section 63.9620(a); 40 CFR Section 63.9621(b)(3); 40 CFR Section 63.9623(a)(1); 40 CFR Section 63.9634(b)(1)</p>

**TABLE A: LIMITS AND OTHER REQUIREMENTS**

Facility Name: ArcelorMittal Minorca Mine Inc  
 Permit Number: 13700062 - 003

**Subject Item: GP 017 Finished Pellet Handling MACT Sources (40 CFR Part 63 Subpart RRRRR)**

- Associated Items:**
- CE 018 Wet Scrubber-Medium Efficiency w/o Lime
  - CE 019 Wet Scrubber-Medium Efficiency w/o Lime
  - CE 020 Wet Scrubber-Medium Efficiency w/o Lime
  - CE 021 Wet Scrubber-Medium Efficiency w/o Lime
  - CE 024 Wet Scrubber-Medium Efficiency w/o Lime
  - CE 028 Fabric Filter - Low Temperature, i.e., T<180 Degrees F
  - EU 021 Pellet Drop Onto Internal Hearth Layer Conveyor
  - EU 022 Drop Into Hearth Layer Bin
  - EU 023 Grate Feed
  - EU 024 Drop Into Hearth Layer Screen
  - EU 025 Drop Onto Conveyor to Hearth Layer Bin
  - EU 027 Machine Discharge
  - EU 028 Drop Onto Conveyor to Pellet Splitter Bin
  - EU 029 Drop Into Pellet Splitter Bin
  - EU 030 Drop Onto Product Splitter Bin Conveyors
  - EU 031 Drop In PI-P2 Transfer House
  - EU 032 Drop Onto P3 Pellet Pile Underfeed Conveyor
  - SV 018 Machine Discharge
  - SV 019 Pellet Drop Onto Internal Hearth Layer Conveyor
  - SV 020 Drop into Hearth Layer Screen
  - SV 021 Drop Into Pellet Spliter Bin
  - SV 022 Drop Onto P3 Pellet Pile Underfeed Conveyor

What to do	Why to do it
A. POLLUTANT LIMITS	hdr
<p>Filterable Particulate Matter: less than or equal to 0.008 gr/dscf based on the Taconite MACT standard. Compliance with this standard is determined based on the flow weighted mean concentration for all Finished Pellet Handling Sources (see the equation below). Compliance with this standard is determined using 40 CFR Part 60 Appendix A Method 5, 5d, or 17. The flow weighted mean concentration shall be calculated as follows</p> $C_w = (C_1 \cdot Q_1 + C_2 \cdot Q_2 + \dots + C_n \cdot Q_n) / (Q_1 + Q_2 + \dots + Q_n)$ <p>Where:                      C<sub>w</sub> = flow weighted mean concentration for all stacks within the group (gr/dscf)                      C<sub>i</sub> = average concentration during the performance test for stack "i" (gr/dscf)                      Q<sub>i</sub> = average volumetric flow rate of stack gas measured during the performance test for stack "i" (dscf/hr)                      n = number of stacks in the Ore Crushing and Handling Group.</p> <p>(continued below)</p>	<p>40 CFR Section 63.9590(a); Table 1 of Part 63 Subpart RRRRR; 40 CFR Section 63.9620(a); 40 CFR Section 63.9621(b)(3); 40 CFR Section 63.9623(a)(1); 40 CFR Section 63.9634(b)(1)                      (continued below)</p>
<p>(continued from above)</p> <p>Once the initial performance tests on all active Finished Pellet Handling sources and groups have been completed, the permittee shall calculate the flow weighted mean concentration to determine compliance with the stack tests.</p> <p>After the initial performance tests have been completed, the flow weighted mean concentration for the Finished Pellet Handling sources shall be recalculated after each applicable compliance test is conducted. The updated flow weighted mean concentration shall be reported to the MPCA within 45 days after the most recent compliance test.</p>	<p>(continued from above)                      40 CFR Section 63.9590(a); Table 1 of Part 63 Subpart RRRRR; 40 CFR Section 63.9620(a); 40 CFR Section 63.9621(b)(3); 40 CFR Section 63.9623(a)(1); 40 CFR Section 63.9634(b)(1)</p>

**TABLE A: LIMITS AND OTHER REQUIREMENTS**

Facility Name: ArcelorMittal Minorca Mine Inc  
 Permit Number: 13700062 - 003

**Subject Item:** EU 001 Primary Crusher System

- Associated Items:** CE 001 Venturi Scrubber  
 CE 002 Fabric Filter - Low Temperature, i.e., T<180 Degrees F  
 GP 012 Ore Handling Baghouses  
 GP 015 Taconite MACT Sources (40 CFR Part 63 Subpart RRRRR)  
 GP 016 Ore Crushing and Handling MACT Sources (40 CFR Part 63 Subpart RRRRR)  
 SV 001 Primary Crusher System  
 SV 002 Primary Crusher System

What to do	Why to do it
A. POLLUTANT LIMITS	hdr
Filterable (front-half) Particulate Matter: This group is subject to the Taconite MACT Standard. Compliance with this standard is determined based on the flow weighted mean concentration for all Ore Crushing and Handling Sources (see GP 016).	40 CFR Section 63.9590(a); Table 1 of 40 CFR Part 63 Subpart RRRRR; 40 CFR Section 63.9620(a); 40 CFR Section 63.9621(b)(3); 40 CFR Section 63.9623(a)(1); 40 CFR Section 63.9634(b)(1)
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. This emission limit applies individually to each emission unit in this group.	Minn. R. 7011.0715, subp. 1(A)
Total Particulate Matter: greater than or equal to 85 percent control efficiency for equipment which is located not less than one-fourth mile from any residence or public roadway, and the operation of the entire emission facility does not cause a violation of the ambient air quality standards, shall be considered in compliance with the requirements of Minn. R. 7011.0715, subp. 1(A ). This emission limit applies individually to each emission unit in this group. (This is an alternative demonstration of compliance to Total Particulate Matter Limit.)	Minn. R. 7011.0715, subp. 3
Opacity: less than or equal to 20 percent opacity	Minn. R. 7011.0715, subp. 1(B)
B. POLLUTION CONTROL EQUIPMENT REQUIREMENTS	hdr
CE 001 - Wet Scrubber Monitoring Requirements: Install, operate, and maintain a continuous parametric monitoring system (CPMS) to measure the daily average scrubber water flow rate and either the scrubber pressure drop and the daily average scrubber fan amps.	40 CFR Section 63.9590(b)(1) and (2); 40 Section CFR 63.9631(b) and (c); 40 CFR Section 63.9632(b)-(e); 40 CFR Section 63.9633; 40 CFR Section 63.9634(e)
CE 001 - Either Scrubber Pressure Drop Daily Average or Daily Average Fan Amperage: comply with the limits as presented in Appendix A.	40 CFR Section 63.9590(b)(1) and (2); 40 Section CFR 63.9631(b) and (c); 40 CFR Section 63.9632(b)-(e); 40 CFR Section 63.9633; 40 CFR Section 63.9634(e)
CE 001 - Scrubber Water Flow Rate Daily Average: comply with the limits as presented in Appendix A.	40 CFR Section 63.9590(b)(1) and (2); 40 Section CFR 63.9631(b) and (c); 40 CFR Section 63.9632(b)-(e); 40 CFR Section 63.9633; 40 CFR Section 63.9634(e)
CE 002 - Bag Leak Detection System Requirements: Install, operate, and maintain a bag leak detection system to monitor the changes in particulate matter loadings. The bag leak detection system shall meet the requirements of 40 CFR Section 63.9632(a).	40 CFR Section 63.9631(a); 40 CFR Section 63.9632(a); 40 CFR Section 63.9633; 40 CFR Section 63.9634(d)
C. PERFORMANCE TESTING REQUIREMENTS (testing is to be performed on a rotating basis as appropriately determined by the MPCA)	hdr
CE 001 - Performance test for Taconite MACT: to determine filterable particulate matter (FPM) emissions for compliance with the Taconite MACT standard. The performance test shall be conducted on one representative stack of this group of similar emission units. Compliance with the standard is based on the flow weighted average concentration of particulate matter discharged to the atmosphere from all affected Ore Crushing and Handling Sources (see the requirements for GP 016).  Performance test calculation procedures shall be consistent with 40 CFR Section 63.9621(b) Performance Test: due before end of each calendar 60 months starting 04/28/2007	40 CFR Section 63.9620(a); 40 CFR Section 63.9621(b); 40 CFR Section 63.9634(b)(2);
CE 002 - Performance testing requirements for CE 002 of this group are identified in GP 012 of this permit.	Minn. R. 7007.0800, subp. 2
Performance Test for IPER (EU 001): to determine Total Particulate Matter and Opacity emissions to demonstrate compliance with the IPER emission limitations. Performance Test: due before end of each calendar 60 months starting 04/28/2007	40 CFR Section 64.3: CAM and Minn. R. 7017.0200; Minn. R. 7017.2020, subp. 1; Minn. R. 7017.2025, subp. 3

**TABLE A: LIMITS AND OTHER REQUIREMENTS**

Facility Name: ArcelorMittal Minorca Mine Inc

Permit Number: 13700062 - 003

**Subject Item:** EU 002 Drop Onto Coarse Ore Pile Conveyor

**Associated Items:** CE 003 Fabric Filter - Low Temperature, i.e., T<180 Degrees F

GP 012 Ore Handling Baghouses

GP 015 Taconite MACT Sources (40 CFR Part 63 Subpart RRRRR)

GP 016 Ore Crushing and Handling MACT Sources (40 CFR Part 63 Subpart RRRRR)

SV 003 Drop onto Coarse Ore Pile Conveyor

What to do	Why to do it
A. POLLUTANT LIMITS	hdr
Filterable (front-half) Particulate Matter: This group is subject to the Taconite MACT Standard. Compliance with this standard is determined based on the flow weighted mean concentration for all Ore Crushing and Handling Sources (see GP 016).	40 CFR Section 63.9590(a); Table 1 of 40 CFR Part 63 Subpart RRRRR; 40 CFR Section 63.9620(a); 40 CFR Section 63.9621(b)(3); 40 CFR Section 63.9623(a)(1); 40 CFR Section 63.9634(b)(1)
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. This emission limit applies individually to each emission unit in this group.	Minn. R. 7011.0715, subp. 1(A)
Total Particulate Matter: greater than or equal to 85 percent control efficiency for equipment which is located not less than one-fourth mile from any residence or public roadway, and the operation of the entire emission facility does not cause a violation of the ambient air quality standards, shall be considered in compliance with the requirements of Minn. R. 7011.0715, subp. 1(A ). This emission limit applies individually to each emission unit in this group. (This is an alternative demonstration of compliance to Total Particulate Matter Limit.)	Minn. R. 7011.0715, subp. 3
Opacity: less than or equal to 20 percent opacity	Minn. R. 7011.0715, subp. 1(B)
B. POLLUTION CONTROL EQUIPMENT REQUIREMENTS	hdr
Bag Leak Detection System Requirements: Install, operate, and maintain a bag leak detection system to monitor the changes in particulate matter loadings. The bag leak detection system shall meet the requirements of 40 CFR Section 63.9632(a).	40 CFR Section 63.9631(a); 40 CFR Section 63.9632(a); 40 CFR Section 63.9633; 40 CFR Section 63.9634(d)
Additional pollution control equipment requirements are identified in GP 012 of this permit.	Minn. R. 7007.0800, subp. 2
C. PERFORMANCE TESTING REQUIREMENTS	hdr
Performance testing requirements are identified in GP 012 of this permit.	Minn. R. 7007.0800, subp. 2

**TABLE A: LIMITS AND OTHER REQUIREMENTS**

Facility Name: ArcelorMittal Minorca Mine Inc

Permit Number: 13700062 - 003

**Subject Item:** EU 018 Binder Transfer to Storage Silo

**Associated Items:** CE 012 Fabric Filter - Low Temperature, i.e., T<180 Degrees F

SV 012 Binder Transfer to Storage Silo

What to do	Why to do it
A. POLLUTANT LIMITS	hdr
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. This emission limit applies individually to each emission unit in this group.	Minn. R. 7011.0715, subp. 1(A)
Total Particulate Matter: greater than or equal to 85 percent control efficiency for equipment which is located not less than one-fourth mile from any residence or public roadway, and the operation of the entire emission facility does not cause a violation of the ambient air quality standards, shall be considered in compliance with the requirements of Minn. R. 7011.0715, subp. 1(A ). This emission limit applies individually to each emission unit in this group. (This is an alternative demonstration of compliance to Total Particulate Matter Limit.)	Minn. R. 7011.0715, subp. 3
Opacity: less than or equal to 20 percent opacity	Minn. R. 7011.0715, subp. 1(B)
B. POLLUTION CONTROL EQUIPMENT REQUIREMENTS	hdr
Parametric Monitoring: For each baghouse, the Permittee shall either (option 1) make daily visible emission checks or pressure drop readings when visible emission checks cannot be performed, or (option 2) operate a bag leak detector.	Minn. R. 7007.0800, subp. 4(D); Minn. R. 7007.0800, subp. 14; Minn. R. 7007.0800, subp. 16(J)
Option 1 - Process Monitoring: a person who has been trained according to the requirement Visible Emission Training in the Total Facility section of this permit shall check the visible emissions from the stack once each operating day. Evidence of visible emissions shall trigger a corrective action as detailed in the O&M Plan.	Minn. R. 7007.0800, subp. 4(D); Minn. R. 7007.0800, subp. 14; Minn. R. 7007.0800, subp. 16(J)
Option 1 - Gas Pressure Drop: if visible emission checks cannot be performed, the pressure drop shall be recorded at least once each day. The pressure drop shall be maintained as found in Appendix A. A deviation from this operating range shall trigger a corrective action as detailed in the O&M Plan.	Minn. R. 7007.0800, subp. 4(D); Minn. R. 7007.0800, subp. 14; Minn. R. 7007.0800, subp. 16(J)
Option 2 - Bag Leak Detectors: If the permittee uses a bag leak detector, an alarm of the detector shall trigger a corrective action as detailed in the O&M Plan.	Minn. R. 7007.0800, subp. 4(D); Minn. R. 7007.0800, subp. 14; Minn. R. 7007.0800, subp. 16(J)

**TABLE A: LIMITS AND OTHER REQUIREMENTS**

Facility Name: ArcelorMittal Minorca Mine Inc

Permit Number: 13700062 - 003

**Subject Item:** EU 026 Indurating Machine

- Associated Items:** CE 014 Venturi Scrubber  
 CE 015 Venturi Scrubber  
 CE 016 Venturi Scrubber  
 CE 017 Venturi Scrubber  
 GP 015 Taconite MACT Sources (40 CFR Part 63 Subpart RRRRR)  
 SV 014 Indurating Machine  
 SV 015 Indurating Machine  
 SV 016 Indurating Machine  
 SV 017 Indurating Machine

What to do	Why to do it
A. POLLUTANT/PROCESS LIMITS	hdr
Filterable (front-half) Particulate Matter: less than or equal to 0.01 gr/dscf based on the Taconite MACT standard. Compliance is determined based on the flow weighted mean concentration of all stacks for the furnace. Front-half Particulate Matter: less than or equal to 0.01 grains/dry standard cubic foot	40 CFR Section 63.9590(a) Table 1; 40 CFR Section 63.9634(c)(1)
Nitrogen Oxides: less than or equal to 1088 lbs/hour . The sum of the NOx emissions from all four stacks (SV014-017) shall not exceed 1088 lbs/hour.	40 CFR pt. 52.21 BACT
Fuel Usage: less than or equal to 270 million Btu's/hour (primary+auxiliary burners total). The primary burners (firing zone burners) may only burn natural gas and #2 fuel oil. The auxiliary burners (preheat burners) may only burn natural gas.	40 CFR pt. 52.21 BACT
Volatile Organic Compounds: less than or equal to 9.1 lbs/hour	To keep the 1987 modification minor for 40 CFR pt. 52.21
Carbon Monoxide: less than or equal to 37.2 lbs/hour using 3-hour Average	To keep the 1987 modification minor for 40 CFR pt. 52.21
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. This emission limit applies individually to each emission unit in this group.	Minn. R. 7011.0610, subp. 1(A)(1) & Minn. R. 7011.0715, subp. 1(A)
Total Particulate Matter: greater than or equal to 85 percent control efficiency for equipment which is located not less than one-fourth mile from any residence or public roadway, and the operation of the entire emission facility does not cause a violation of the ambient air quality standards, shall be considered in compliance with the requirements of Minn. R. 7011.0715, subp. 1(A ). This emission limit applies individually to each emission unit in this group. (This is an alternative demonstration of compliance to Total Particulate Matter Limit.)	Minn. R. 7011.0610, subp. 1(A)(1) & Minn. R. 7011.0715, subp. 1(A)
Opacity: less than or equal to 20 percent opacity except for one six-minute period within any one-hour period of up to 60 percent opacity.	Minn. R. 7011.0610, subp. 1(A)(2)
Sulfur Dioxide: less than or equal to 2 lbs/million Btu heat input when a liquid fossil fuel is burned.	Minn. R. 7011.0610, subp. 2(B)
B. POLLUTION CONTROL EQUIPMENT REQUIREMENTS	hdr
Wet Scrubber Monitoring Requirements: Install, operate, and maintain a continuous parametric monitoring system (CPMS) for each scrubber to measure either the daily average scrubber pressure drop or daily average scrubber fan amperage and the daily average scrubber water flow rate.	40 CFR Section 63.9590(b)(1); 40 CFR Section 63.9631(b) and (c); 40 CFR Section 63.9632(b)-(e); 40 CFR Section 63.9633; 40 CFR Section 63.9634(e)
Either Scrubber Pressure Drop Group Daily Average or Daily Average Fan Amperage: comply with the limits as presented in Appendix A.	40 CFR Section 63.9590(b)(1); 40 CFR Section 63.9631(b) and (c); 40 CFR Section 63.9632(b)-(e); 40 CFR Section 63.9633; 40 CFR Section 63.9634(e)
Scrubber Water Flow Rate Group Daily Average: comply with the limits as presented in Appendix A.	40 CFR Section 63.9590(b)(1); 40 CFR Section 63.9631(b) and (c); 40 CFR Section 63.9632(b)-(e); 40 CFR Section 63.9633; 40 CFR Section 63.9634(e)
C. PERFORMANCE TESTING REQUIREMENTS	hdr
Performance Test: due before end of each calendar 24 months starting 06/29/2005 (for NOx)	Minn. R. 7017.2020, subp. 1

**TABLE A: LIMITS AND OTHER REQUIREMENTS**

Facility Name: ArcelorMittal Minorca Mine Inc

Permit Number: 13700062 - 003

<p>If the average total NOx emission rate from SV014-017 exceeds (1033.6 lb/hr) 95% of the NOx emission limit in any 12 month period, the Permittee will submit a plan for Agency review and approval within 120 days of the most recent performance test to implement further monitoring that is technically and economically feasible based on current technologies. This monitoring could include Continuous Emission Monitors (CEMS), Parametric Emission Monitoring (PEMS) or other parametric monitoring which would allow the Permittee and the Agency to reliably and accurately determine the NOx emissions from SV014-017.</p>	<p>Minn. R. 7007.0800, subp. 2; 7017.1000, subp. 1</p>
<p>If the BTU/Long Ton of Pellets exceeds 550,000 BTU/long tons of pellets based on a 12 month rolling average the Permittee shall perform a NOx performance test within 120 days of the exceedence. This rolling average will exclude days where the ambient temperatures are less then -20 degrees fahrenheit at the nearest weather station. This rolling average will also exclude days where the furnace is in a start up mode and the production during start up is less than 250 long tons of pellets per hour.</p>	<p>Minn. R. 7017.2020, subp. 1</p>
<p>Performance test for Taconite MACT: due for each indurating furnace between October 30, 2003 and October 28, 2007 (180 days after October 30, 2006), and at least two times every 5 calendar years thereafter (the tests must be conducted at least 1 year apart but no more than 4 years apart), to determine filterable particulate matter (FPM) emissions for compliance with the Taconite MACT standard. For indurating furnaces with multiple stacks, compliance is based on the flow weighted mean concentration using the following formula:</p> <p><math>C_b = (\text{Summation of } (C_j * Q_i)) / (\text{Summation } Q_i); \text{ where } i=1</math></p> <p>Where:  <math>C_b</math> = flow weighted mean concentration for all stacks from the source (gr/dscf)  <math>C_j</math> = average concentration during the performance test for stack "j" (gr/dscf)  <math>Q_j</math> = average volumetric flow rate of stack gas measured during the performance test (dscf/min)  <math>n</math> = number of stacks for the indurating furnace.</p>	<p>40 CFR Section 63.9620(b); 40 CFR Section 63.9621(c); 40 CFR Section 63.9623(a)(2); 40 CFR Section 63.9634(c)(3)</p>
<p>Performance Test for IPER (EU 026): to determine Total Particulate Matter and Opacity emissions to demonstrate compliance with the IPER emission limitations. Performance Test: due before end of each calendar 60 months starting 04/28/2007</p>	<p>40 CFR Section 64.3: CAM and Minn. R. 7017.0200; Minn. R. 7017.2020, subp. 1; Minn. R. 7017.2025, subp. 3</p>



**TABLE A: LIMITS AND OTHER REQUIREMENTS**

Facility Name: ArcelorMittal Minorca Mine Inc  
 Permit Number: 13700062 - 003

**Subject Item:** EU 031 Drop In P1-P2 Transfer House

**Associated Items:** CE 024 Wet Scrubber-Medium Efficiency w/o Lime  
 GP 014 Pellet Conveying Scrubbers  
 GP 015 Taconite MACT Sources (40 CFR Part 63 Subpart RRRRR)  
 GP 017 Finished Pellet Handling MACT Sources (40 CFR Part 63 Subpart RRRRR)  
 SV 024 Drop in P1-P2 Transfer House

What to do	Why to do it
A. POLLUTANT LIMITS	hdr
Filterable (front-half) Particulate Matter: This unit is subject to the Taconite MACT Standard. Compliance with this standard is determined based on the flow weighted mean concentration for all Finished Pellet Handling Sources (see GP 017).	40 CFR Section 63.9590(a); Table 1 of 40 CFR Part 63 Subpart RRRRR; 40 CFR Section 63.9620(a); 40 CFR Section 63.9621(b)(3); 40 CFR Section 63.9623(a)(1); 40 CFR Section 63.9634(b)(1)
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. This emission limit applies individually to each emission unit in this group.	Minn. R. 7011.0715, subp. 1(A)
Total Particulate Matter: greater than or equal to 85 percent control efficiency for equipment which is located not less than one-fourth mile from any residence or public roadway, and the operation of the entire emission facility does not cause a violation of the ambient air quality standards, shall be considered in compliance with the requirements of Minn. R. 7011.0715, subp. 1(A ). This emission limit applies individually to each emission unit in this group. (This is an alternative demonstration of compliance to Total Particulate Matter Limit.)	Minn. R. 7011.0715, subp. 3
Opacity: less than or equal to 20 percent opacity	Minn. R. 7011.0715, subp. 1(B)
B. POLLUTION CONTROL EQUIPMENT REQUIREMENTS	hdr
Wet Scrubber Monitoring Requirements: Install, operate, and maintain a continuous parametric monitoring system (CPMS) to measure the daily average scrubber pressure drop and the daily average scrubber water flow rate. For dynamic scrubbers, fan amps can be measured as an alternative to pressure drop.	40 CFR Section 63.9590(b)(1); 40 CFR Section 63.9622(a); 40 CFR Section 63.9631(b); 40 CFR Section 63.9632(b)-(e); 40 CFR Section 63.9633; 40 CFR Section 63.9634(e)
Additional pollution control equipment requirements are identified in GP 014 of this permit.	Minn. R. 7007.0800, subp. 2
C. PERFORMANCE TESTING REQUIREMENTS	hdr
Performance testing requirements are identified in GP 014 of this permit.	Minn. R. 7007.0800, subp. 2

**TABLE A: LIMITS AND OTHER REQUIREMENTS**

Facility Name: ArcelorMittal Minorca Mine Inc

Permit Number: 13700062 - 003

**Subject Item:** EU 032 Drop Onto P3 Pellet Pile Underfeed Conveyor

**Associated Items:** CE 028 Fabric Filter - Low Temperature, i.e., T<180 Degrees F  
 GP 015 Taconite MACT Sources (40 CFR Part 63 Subpart RRRRR)  
 GP 017 Finished Pellet Handling MACT Sources (40 CFR Part 63 Subpart RRRRR)  
 SV 022 Drop Onto P3 Pellet Pile Underfeed Conveyor

What to do	Why to do it
A. POLLUTANT LIMITS	hdr
Filterable (front-half) Particulate Matter: This unit is subject to the Taconite MACT Standard. Compliance with this standard is determined based on the flow weighted mean concentration for all Finished Pellet Handling Sources (see GP 017).	40 CFR Section 63.9590(a); Table 1 of 40 CFR Part 63 Subpart RRRRR; 40 CFR Section 63.9620(a); 40 CFR Section 63.9621(b)(3); 40 CFR Section 63.9623(a)(1); 40 CFR Section 63.9634(b)(1)
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. This emission limit applies individually to each emission unit in this group.	Minn. R. 7011.0715, subp. 1(A)
Total Particulate Matter: greater than or equal to 85 percent control efficiency for equipment which is located not less than one-fourth mile from any residence or public roadway, and the operation of the entire emission facility does not cause a violation of the ambient air quality standards, shall be considered in compliance with the requirements of Minn. R. 7011.0715, subp. 1(A). This emission limit applies individually to each emission unit in this group. (This is an alternative demonstration of compliance to Total Particulate Matter Limit.)	Minn. R. 7011.0715, subp. 3
Opacity: less than or equal to 20 percent opacity	Minn. R. 7011.0715, subp. 1(B)
B. POLLUTION CONTROL EQUIPMENT REQUIREMENTS	hdr
Bag Leak Detection System Requirements: Install, operate, and maintain a bag leak detection system to monitor the changes in particulate matter loadings. The bag leak detection system shall meet the requirements of 40 CFR Section 63.9632(a). Records must be maintained as detailed in the Site-Specific Bag Leak Detection System Monitoring Plan.	40 CFR Section 63.9631(a); 40 CFR Section 63.9632(a); 40 CFR Section 63.9633; 40 CFR Section 63.9634(d)
Additional pollution control equipment requirements for this group are identified in GP 015 of this permit.	Minn. R. 7007.0800, subp. 2
C. PERFORMANCE TESTING REQUIREMENTS	hdr
Performance test for Taconite MACT: to determine filterable particulate matter (FPM) emissions for compliance with the Taconite MACT standard. Compliance with the standard is based on the flow weighted average concentration of particulate matter discharged to the atmosphere from all affected Finished Pellet Handling Sources (see the requirements for GP 017).	40 CFR Section 63.9620(a); 40 CFR Section 63.9621(b); 40 CFR Section 63.9634(b)(2);
Performance test calculation procedures shall be consistent with 40 CFR Section 63.9621(b) Performance Test: due before end of each calendar 60 months starting 04/28/2007	
Performance Test for IPER: to determine Total Particulate Matter and Opacity emissions to demonstrate compliance with the IPER emission limitations. Performance Test: due before end of each calendar 60 months starting 04/28/2007	40 CFR Section 64.3: CAM and Minn. R. 7017.0200; Minn. R. 7017.2020, subp. 1; Minn. R. 7017.2025, subp. 3

**TABLE A: LIMITS AND OTHER REQUIREMENTS**

A-46 03/29/11

Facility Name: ArcelorMittal Minorca Mine Inc

Permit Number: 13700062 - 003

**Subject Item:** EU 033 Pellet Loadout Bin Transfer Point**Associated Items:** CE 023 Dust Suppression by Water Spray

What to do	Why to do it
A. POLLUTANT LIMITS	hdr
Opacity: less than or equal to 20 percent opacity	Minn. R. 7011.0715, subp. 1(B)
Visible Emissions: The Permittee shall check for any visible emissions once each day of operation during daylight hours.	Minn. R. 7007.0800, subps. 4 and 5
Recordkeeping of Visible Emissions. The Permittee shall record the time and date of each visible emission inspection and whether or not any visible emissions were observed.	Minn. R. 7007.0800, subps. 4 and 5
<p>Corrective Actions: The Permittee shall take corrective action as soon as possible if visible emissions are observed;</p> <p>Corrective actions shall eliminate visible emissions, 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 &amp; M Plan. The Permittee shall keep a record of the type and date of any corrective action taken.</p>	Minn. R. 7007.0800, subps. 4, 5, and 14

**TABLE A: LIMITS AND OTHER REQUIREMENTS**

Facility Name: ArcelorMittal Minorca Mine Inc

Permit Number: 13700062 - 003

**Subject Item:** EU 036 Emergency Generator

**Associated Items:** CE 026 Other

SV 026 Emergency Generator (1,000 HP/7MMBTU/hr)

What to do	Why to do it
Opacity: less than or equal to 20 percent opacity once operating temperatures have been attained.	Minn. R. 7011.2300, subp. 1
Sulfur Dioxide: less than or equal to 0.5 lbs/million Btu heat input unless an alternative limit is established in an air emission permit after demonstration through modeling of compliance with the sulfur dioxide standards in part 7009.0080.	Minn. R. 7011.2300, subp. 2
NESHAP Subpart ZZZZ Requirements	hdr
The Permittee shall comply with the applicable emission limitations and operating limitations from 40 CFR pt. 63 subp. ZZZZ no later than June 15, 2007. At all times the Permittee shall operate and maintain any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions.	40 CFR Sections 63.6595(a) and 63.6605 and Minn. R. 7011.8150
The Permittee shall minimize the engine's time spent at idle during startup and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the emission standards applicable to all times other than startup in Tables 1a, 2a, 2c, and 2d of 40 CFR pt. 63, subp. ZZZZ apply.	40 CFR Section 63.6625(h) and Minn. R. 7011.8150
<p>The Permittee shall operate the emergency stationary RICE according to the requirements in (i) through (iii). If you do not operate the engine according to the requirements in (i) through (iii), the engine will not be considered an emergency engine and will need to meet all requirements for non-emergency engines.</p> <p>(i) There is no time limit on the use of emergency stationary RICE in emergency situations.</p> <p>(continued below)</p>	40 CFR Section 63.6640(f)(2) and Minn. R. 7011.8150 (continued below)
<p>(continued from above)</p> <p>(ii) The Permittee may operate the emergency stationary RICE for the purpose of maintenance checks and readiness testing, provided that the tests are recommended by the manufacturer, the vendor, or the insurance company associated with the engine. Required testing of such units should be minimized, but there is no time limit on the use of emergency stationary RICE in emergency situations and for routine testing and maintenance.</p> <p>(iii) The Permittee may operate your emergency stationary RICE up to 50 hours per year in non-emergency situations. The 50 hours per year for non-emergency situations cannot be used for peak shaving or to generate income for a facility to supply power to an electric grid or otherwise supply power as part of a financial arrangement with another entity.</p>	(continued from above) 40 CFR Section 63.6640(f)(2) and Minn. R. 7011.8150
NESHAP Subpart ZZZZ Requirements - Reports	hdr
The Permittee shall keep records of the maintenance conducted on the stationary RICE to demonstrate that the stationary RICE and after-treatment control device (if any) were operated and maintained according to the maintenance plan.	40 CFR Section 63.6655(e) and Minn. R. 7011.8150

**TABLE A: LIMITS AND OTHER REQUIREMENTS**

A-48 03/29/11

Facility Name: ArcelorMittal Minorca Mine Inc

Permit Number: 13700062 - 003

**Subject Item:** EU 037 Emergency Fire Pump**Associated Items:** CE 027 Other

SV 027 Emergency Fire Pump (300 HP/2.1MMBtu/hr)

What to do	Why to do it
Opacity: less than or equal to 20 percent opacity once operating temperatures have been attained.	Minn. R. 7011.2300, subp. 1
Sulfur Dioxide: less than or equal to 0.5 lbs/million Btu heat input unless an alternative limit is established in an air emission permit after demonstration through modeling of compliance with the sulfur dioxide standards in part 7009.0080.	Minn. R. 7011.2300, subp. 2
NESHAP Subpart ZZZZ Requirements	hdr
This emission unit is subject to the requirements of 40 CFR Part 63 Subpart ZZZZ. The source shall comply with the applicable emission limitations and operating limitations no later than May 3, 2013.	40 CFR Part 63 Subpart ZZZZ

**TABLE B: SUBMITTALS**

B-1 03/29/11

Facility Name: ArcelorMittal Minorca Mine Inc  
Permit Number: 13700062 - 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.

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

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

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

Send 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

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.

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: ONE TIME SUBMITTALS OR NOTIFICATIONS**

B-2 03/29/11

Facility Name: ArcelorMittal Minorca Mine Inc

Permit Number: 13700062 - 003

<b>What to send</b>	<b>When to send</b>	<b>Portion of Facility Affected</b>
Computer Dispersion Modeling Protocol	due 1,096 days after Performance Test (s) are completed to establish PM2.5 emission data. This protocol will describe the proposed modeling methodology and input data, in accordance with MPCA modeling guidance for Title V air dispersion modeling analyses.	Total Facility
Submittal	due 180 days after Permit Issuance certified and complete facility description forms and information provided to support the issuance of this permitting action.	Total Facility

**TABLE B: RECURRENT SUBMITTALS**

B-3 03/29/11

Facility Name: ArcelorMittal Minorca Mine Inc

Permit Number: 13700062 - 003

<b>What to send</b>	<b>When to send</b>	<b>Portion of Facility Affected</b>
Semiannual Deviations Report	due 30 days after end of each calendar half-year following Permit Issuance. The first semiannual report submitted by the Permittee shall cover the calendar half-year in which the permit is issued. The first report of each calendar year covers January 1 - June 30. The second report of each calendar year covers July 1 - December 31. If no deviations have occurred, the Permittee shall submit the report stating no deviations.	Total Facility
Compliance Certification	due 31 days after end of each calendar year following Permit Issuance (for the previous calendar year). The Permittee shall submit this on a form approved by the Commissioner, both to the Commissioner and to the US EPA regional office in Chicago. This report covers all deviations experienced during the calendar year.	Total Facility



APPENDIX MATERIAL

Facility Name: ArcelorMittal Minorca Mine, Inc.

Permit Number: 13700062-003

APPENDIX A:  
CONTROL EQUIPMENT REQUIREMENTS



Acrobat Document

**APPENDIX B:  
AIR DISPERSION MODELING REVIEW AND SUMMARY**



Acrobat Document

**APPENDIX C:  
INSIGNIFICANT ACTIVITIES**



Acrobat Document

**TECHNICAL SUPPORT DOCUMENT**  
**For**  
**AIR EMISSION PERMIT NO. 13700062-003**

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

**1. General Information**

**1.1. Applicant and Stationary Source Location:**

**Table 1. Applicant and Source Address**

Applicant/Address	Stationary Source/Address (SIC Code: 1011)
ArcelorMittal Minorca Mine Inc. PO Box 1 Virginia, MN 55792	5950 Old Highway 53 Virginia, MN 55792 St. Louis County
Contact: Ms. Jaime Baggenstoss; Phone: 218-749-5910 x283	

**1.2. Facility Description**

ArcelorMittal Minorca Mine Inc. (Minorca) is the owner and operator of a taconite (magnetite) ore mining and pellet production plant on the north side of Virginia, Minnesota. Minorca's mine and pellet production plant are located in St. Louis County. The existing facility is classified as a major emission source with respect to the federal PSD program. The facility is also a major source of hazardous air pollutants (HAPs) as potential emissions of HAPs exceed the major source thresholds of 10 tons per year (tpy) for any individual HAP and 25 tpy of total HAPs.

The facility was originally owned by Inland Steel Mining Company, which started development of the plant site and the Minorca pit in 1974 with the first shipment of pellets made in June 1977. The Minorca pit is located approximately 1 mile south of the plant site. In 1993 the company opened a new ore body called the Laurentian Mine near Gilbert, Minnesota, about 6 ½ miles from its production facilities.

In 1998, Inland Steel and Minorca Mine were purchased by Ispat International and renamed Ispat Inland Incorporated. In 2006 the company became Mittal Steel. Finally, in 2007, the merger between Mittal Steel with Arcelor formed ArcelorMittal and the facility was renamed ArcelorMittal Minorca Mine Inc.

In 2007, ArcelorMittal began mining the East Reserve between McKinley and Biwabik, Minnesota, about 7 miles from the plant site.

The crusher facility and pellet production plant consists of a course crusher, secondary crushers, and tertiary crushers to produce fine ore. The fine ore from the crushers is further processed in the concentrator which includes a rod mill to grind the ore, a cobber to provide initial magnetic separation of the iron, a ball mill to further grind the ore, a rougher to provide a second stage of magnetic separation, and a flotation separator to further concentrate the iron. The concentrated iron ore (concentrate) is dewatered and blended with flux (limestone and dolomite as prepared at the facility fluxstone grinding plant) and binder (bentonite) and rolled into marble size green balls on the balling discs. The amount of flux and binder blended with the concentrate depends on whether the facility is producing flux pellets or standard / acid (low-flux) pellets. The green balls are dried and heat hardened in the straight grate indurating furnace in 6 carefully controlled heating and cooling zones to form taconite pellets. The primary fuel for the indurating furnace is provided by natural gas with and fuel oil as an alternative in the main gas chambers. The finished pellets are shipped from the facility by rail through the Great Lakes system to blast furnaces in the lower Great Lakes and made into a variety of steel products.

The facility is capable of producing up to approximately 3,200,000 million long tons (LT) of finished pellets per year. Steel demand, product type, and product quality drive the level of Minorca's annual pellet production. By convention, Minorca reports long tons (1 long ton = 2240 pounds) of production. Long tons are multiplied by a factor of 1.12 and reported as short tons for air quality permitting purposes.

To produce approximately 3,200,000 million LT of pellets, approximately 9,600,000 million LT of taconite ore must be processed. The current weight recovery (percentage of concentrate recovered to taconite ore) is in the approximate range of 28-30 percent. Stripping (including the overburden, the rock, and the low-grade taconite that cannot be economically processed) must be performed prior to hauling the taconite ore. "All-material" includes the total taconite ore removed and stripping tons. During the period of estimated mine life, Minorca averaged nearly 18 million LT of all material per year.

There are three main areas where emissions are emitted: the mine, the tailings basin and the pellet plant. Emissions from the mine are fugitive emissions created from blasting, coarse ore loading and unloading, overburden loading and unloading and haul truck traffic on unpaved roads and are primarily particulate matter. Emissions from the tailings basin are fugitive emissions created by tailing basin dike construction, truck traffic on unpaved roads and wind erosion of exposed tailings beaches and are primarily particulate matter. Emissions from the pellet plant consist of point source emissions from crushing, concentrating, and agglomerating operations which primarily create particulate matter emissions. The indurating furnace emits particulate matter, SO<sub>2</sub>, NO<sub>x</sub>, CO and other pollutants such as Hazardous Air Pollutants (HAP<sub>s</sub>). HAP<sub>s</sub> emissions tend to be metals and products of combustion. Fugitive emissions from the pellet plant are from pellet loadout and wind erosion of fine particles from the pellet storage piles and are particulate matter. The facility uses a variety of bag houses and wet scrubbers to control

emissions from the point sources located in the pellet plant. Water and chemical dust suppressants are applied to haul roads and other fugitive sources to reduce particulate emissions when weather permits.

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

This permit action is a reissuance of an existing Title V air permit and incorporates the applicable requirements of the National Emission Standard for Hazard Air Pollutants (NESHAP) for Taconite Processing Plans (also known as the Taconite MACT) per 40 CFR Part 63 Subpart RRRRR. This permit adds the following groups which incorporate the requirements of the Taconite MACT: GP 012 (Ore Handling Baghouses), GP 013 (Crushing Scrubbers), GP 014 (Pellet Conveying Scrubbers), GP 015 (Taconite MACT Sources), GP 016 (Ore Crushing and Handling MACT Sources) and GP 017 (Finished Pellet Handling MACT Sources).

This permit action also incorporates the applicable requirements of National Emission Standard for Hazard Air Pollutants (NESHAP) for Reciprocating Internal Combustion Engines (also known as the RICE MACT) per 40 CFR Part 63 Subpart ZZZZ. This standard is incorporated in EU 036 and EU 037.

This permit action also incorporates provisions from the Compliance Assurance Monitoring (CAM) Plan as submitted by ArcelorMittal to meet the requirements of 40 CFR Part 64.

Furthermore, this permit action revises pollution control equipment operating limits based on performance testing results and updates facility description data.

### **1.4 Description of All Amendments Issued Since the Issuance of the Last Total Facility Permit**

13700062-002 February 12, 2007	Authorizes the opening of East Reserve mine.
13700062-001 January 14, 2000	Part 70 Total Facility Permit issuance

### **1.5. Facility Emissions:**

**Table 2. Total Facility Potential to Emit Summary**

	PM tpy	PM <sub>10</sub> tpy	PM <sub>2.5</sub> tpy	SO <sub>2</sub> tpy	NO <sub>x</sub> tpy	CO tpy	VOC tpy	Pb tpy	Single HAP tpy	All HAPs tpy
Total Facility Limited Potential Emissions	5,954.8	2,492.7	739.6	333.3	4,902.1	194.3	58.6	0.13	*	*
Total Facility Actual Emissions (2008)	848.96	626.95	**	149.71	2,655.44	25.89	20.19	0.10	HAPs not reported in emission inventory	

\* - The facility is a major source of HAPs.

\*\* - PM<sub>2.5</sub> data was not required for the 2008 emissions inventory.

**Table 3. Facility Classification**

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

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

New Source Review

The facility is an existing major source under New Source Review regulations. No changes are authorized by this permit.

Part 70 Permit Program

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

New Source Performance Standards (NSPS)

Portions of the facility are subject to the NSPS for Metallic Mineral Processing Plants (40 CFR Part 60 subpart 000)

National Emission Standards for Hazardous Air Pollutants (NESHAP)

The facility is a major source of HAPs. The facility is subject to the following NESHAPs:

- Taconite and Iron Ore Processing (40 CFR Part 63 subpart RRRRR).
- Reciprocating Internal Combustion Engines (40 CFR Part 63 subpart ZZZZ)

Compliance Assurance Monitoring (CAM)

The table below lists the sources which are subject to CAM, whether the source is a large pollutant specific emission unit (PSEU), and the monitoring for the applicable pollutants. This permit action incorporates provisions from the Compliance Assurance Monitoring (CAM) Plan as submitted by ArcelorMittal to meet the requirements of 40 CFR Part 64.

**Table 4. CAM Summary**

<b>Unit</b>	<b>Control</b>	<b>CAM Applicability</b>	<b>Pollutant</b>	<b>Primary Monitoring Method</b>
EU 001 EU 002 EU 006 EU 011 EU 032	CE 002 Fabric Filter CE 003 Fabric Filter CE 009 Fabric Filter CE 010 Fabric Filter CE 028 Fabric Filter	Large	PM/PM <sub>10</sub> / PM <sub>2.5</sub>	Continuous bag leak detector
EU 012 EU 013	CE 012 Fabric Filter CE 013 Fabric Filter	Large	PM/PM <sub>10</sub> / PM <sub>2.5</sub>	Daily visible emission checks
EU 001 EU 003 EU 004 EU 007 EU 008 EU 009 EU 013 EU 026 EU 026 EU 026 EU 026	CE 001 Venturi Scrubber CE 004 Venturi Scrubber CE 005 Venturi Scrubber CE 006 Venturi Scrubber CE 007 Venturi Scrubber CE 008 Venturi Scrubber CE 011 Venturi Scrubber CE 014 Venturi Scrubber CE 015 Venturi Scrubber CE 016 Venturi Scrubber CE 017 Venturi Scrubber	Large	PM/PM <sub>10</sub> / PM <sub>2.5</sub>	Continuous scrubber water flow rate and scrubber pressure drop
EU 027 EU 021 EU 024 EU 029 EU 031	CE 018 Dynamic Wet Scrubber CE 019 Dynamic Wet Scrubber CE 020 Dynamic Wet Scrubber CE 021 Dynamic Wet Scrubber CE 024 Dynamic Wet Scrubber	Large	PM/PM <sub>10</sub> / PM <sub>2.5</sub>	Continuous scrubber water flow rate and either scrubber fan amps or scrubber pressure drop
EU 005	See CE 004 / CE 005	Large	PM/PM <sub>10</sub> / PM <sub>2.5</sub>	Emissions are controlled with common control equipment with another emission unit. See the monitoring requirements above for the listed control equipment.
EU 010	See CE 006 / CE 007 / CE 008	Large	PM/PM <sub>10</sub> / PM <sub>2.5</sub>	
EU 012	See CE 009 / CE 010	Large	PM/PM <sub>10</sub> / PM <sub>2.5</sub>	
EU 014	See CE 011	Large	PM/PM <sub>10</sub> / PM <sub>2.5</sub>	
EU 015	See CE 011	Large	PM/PM <sub>10</sub> / PM <sub>2.5</sub>	



Unit	Control	CAM Applicability	Pollutant	Primary Monitoring Method
			PM <sub>2.5</sub>	
EU 016	See CE 011	Large	PM/PM <sub>10</sub> / PM <sub>2.5</sub>	
EU 017	See CE 011	Large	PM/PM <sub>10</sub> / PM <sub>2.5</sub>	
EU 020	See CE 013	Large	PM/PM <sub>10</sub> / PM <sub>2.5</sub>	
EU 022	See CE 019	Large	PM/PM <sub>10</sub> / PM <sub>2.5</sub>	
EU 023	See CE 019	Large	PM/PM <sub>10</sub> / PM <sub>2.5</sub>	
EU 025	See CE 020	Large	PM/PM <sub>10</sub> / PM <sub>2.5</sub>	
EU 028	See CE 018	Large	PM/PM <sub>10</sub> / PM <sub>2.5</sub>	
EU 030	See CE 021	Large	PM/PM <sub>10</sub> / PM <sub>2.5</sub>	

For large pollutant specific emission units, records of the monitored parameter must be made at a minimum of 4 times per hour, or once every 15 minutes. For other PSEUs (not large), records must be made at a minimum of once per 24 hours. See the Attachment for the CAM Plan submitted by the applicant.

#### Environmental Review & AERA

No changes in this permitting action trigger Environmental Review or AERA requirements.

#### Minnesota State Rules

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

- Minn. R. 7011.0150, Standards of Performance for Preventing Particulate Emissions from Becoming Airborne applies to the entire facility.
- Minn. R. 7011.0610, Standards of Performance for Fossil-Fuel-Burning Direct Heating Equipment applies to direct heating units that are not subject to other standards of performance.
- Minn. R. 7011.0715, Standards of Performance for Post-1969 Industrial Process Equipment applies to units that are not subject to other standards of performance.
- Minn. R. 7011.7000 General Provisions of Federal NESHAPs Source Categories Incorporated by Reference (incorporation of 40 CFR 63 subpart A by reference)

- Minn. R. 7011.8030 Taconite Iron Ore Processing (incorporation of 40 CFR 63 subpart RRRRR by reference).
- Minn. R. 7011.2300 Standards of Performance for Stationary Internal Combustion Engines

**Table 3. Regulatory Overview of Facility**

<b>Level</b>	<b>Applicable Regulations</b>	<b>Comments:</b>
Total Facility	Minn. R. 7007.0800, subp. 2	This permit contains appendices as listed in the permit Table of Contents. The Permittee shall comply with all requirements contained in the appendices.
	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	Fugitive Dust Control Plan
	40 CFR Section 63.9580 to 63.9652; Tables to 40 CFR Part 63 Subpart RRRRR; 40 CFR Part 63 subp. A and Minn. R. 7011.7000	National Emission Standards for Hazardous Air Pollutants: Taconite Iron Ore Processing, 40 CFR Part 63 Subpart RRRRR, commonly referred to as the Taconite MACT
	40 CFR Section 63.9591; 40 CFR Section 63.9635	The fugitive control plan shall also contain requirements for compliance with the fugitive emission standards in 40 CFR Part 63 Subpart RRRRR for emissions from stockpiles, material transfer points, plant roadways, tailings basin, pellet loading areas, and yard areas. Additional information regarding compliance with the fugitive emissions requirements of Subpart RRRRR is presented in GP 015.
	Title I Condition: 40 CFR Section 52.21(r)(6); Minn. R. 7007	Determining if future projects/modifications are subject to NSR
	40 CFR pt. 50; Minn. Stat. Section	The Permittee shall comply with Ambient Air Quality Standards (see the attached modeling information)
	Minn. R. 7017.2020, subp. 1	Performance Test: due 540 days after Permit Issuance to measure PM2.5 emissions. The goal of this PM2.5 testing requirement will be to show concordance with assumed emission rates and to establish source specific PM2.5 emission factors. The testing schedules can be defined so that sources with only filterable PM2.5 can be tested first, and then the furnaces and other sources with condensable PM2.5 emissions. Stack Vents (SV) with a PM10 PTE to stack height ratio exceeding 0.30 (lbs/hr)/ft of stack height are to be included in this performance testing requirement (a ratio to ensure that, at the very least, the major contributors are included in the analysis. Specifically, SV 014 through 018). Once site-specific emission factors are established, the facility will be required to use these emission factors to generate site-specific

<b>Level</b>	<b>Applicable Regulations</b>	<b>Comments:</b>
		PM2.5 emission data and to complete a modeling compliance demonstration for PM2.5 National Ambient Air Quality Standards. (see the modeling requirement below as well as the attached modeling information)
	Minn. Stat. Section 116.07, subds. 4a & 9; Minn. R. 7009.0020; Minn. R. 7007.0100; Minn. R. 7007.0800, subp. 2	Computer Dispersion Modeling Protocol: due 1,096 days after Performance Test (s) are completed to establish PM2.5 emission data. This protocol will describe the proposed modeling methodology and input data, in accordance with MPCA modeling guidance for Title V air dispersion modeling analyses. (see the attached modeling information)
	Minn. R. 7007.0800, subp. 2; Minn. R. 7005.0100 subp. 35a	Submittal: due 180 days after Permit Issuance certified and complete facility description forms and information provided to support the issuance of this permitting action.
	Minn. R. 7007.0150 (contingent upon promulgation)	By July 1, 2011, an owner or operator holding any existing part 70 or state facility permit must calculate whether the facility's potential to emit greenhouse gases meets or exceeds the permit threshold for greenhouse gases in part 7007.0200, subpart 2. (1) If the potential to emit greenhouse gases as CO <sub>2</sub> e does not exceed the permit threshold for greenhouse gases, the owner or operator must retain records of the calculation on site until January 2, 2016. (2) If the potential to emit greenhouse gases as CO <sub>2</sub> e exceeds the permit threshold for greenhouse gases, then the owner or operator must notify the Pollution Control Agency by June 30, 2011, if the facility can retain its current permit or submit an application by June 30, 2012, to revise the permit.
GP 001 through GP 004	40 CFR Part 63	Groups subject to the Taconite MACT Standard. Pollution control equipment requirements (filterable particulate matter limit).
	Minn. R. 7011.0715	Standards of Performance for Post-1969 Industrial Process Equipment (total particulate matter and opacity limit)
	Minn. R. 7007.0800 or 40 CFR Part 63 or Minn. R. 7017	Performance testing requirements.
GP 005	Minn. R. 7011.0715	Standards of Performance for Post-1969 Industrial Process Equipment (total particulate matter and opacity limit)
	Minn. R. 7007.0800	Pollution control equipment requirements.
GP 006 through GP 009	40 CFR Part 63	Groups subject to the Taconite MACT Standard. Pollution control equipment requirements (filterable particulate matter limit).
	Minn. R. 7011.0715	Standards of Performance for Post-1969 Industrial Process Equipment (total particulate matter and opacity limit)
	Minn. R. 7007.0800 or 40 CFR Part 63 or Minn. R. 7017	Performance testing requirements.
GP 010	40 CFR Section 60.672(b) Table 3 to Subpart OOO	NSPS for Metallic Mineral Processing Plants.
GP 011	Minn. R. 7011.0150, 40	Fugitive Dust Control Plan

<b>Level</b>	<b>Applicable Regulations</b>	<b>Comments:</b>
	CFR Section 63.9591, 40 CFR Section 63.9635	
GP 012 through GP 014	40 CFR Part 63	Groups subject to the Taconite MACT Standard. Pollution control equipment requirements (filterable particulate matter limit).
	Minn. R. 7011.0715	Standards of Performance for Post-1969 Industrial Process Equipment (total particulate matter and opacity limit)
	Minn. R. 7007.0800 or 40 CFR Part 63 or Minn. R. 7017	Performance testing requirements.
GP 015	40 CFR Part 63 Subpart RRRRR	This group contains all emission units which are subject to the Taconite MACT
GP 016	40 CFR Part 63 Subpart RRRRR	Filterable Particulate Matter limits for Ore Crushing and Handling MACT Sources
GP 017	40 CFR Part 63 Subpart RRRRR	Filterable Particulate Matter limits for Finished Pellet Handling MACT Sources
EU 001 through EU 002	40 CFR Part 63	Subject to the Taconite MACT Standard. Pollution control equipment requirements (filterable particulate matter limit).
	Minn. R. 7011.0715	Standards of Performance for Post-1969 Industrial Process Equipment (total particulate matter and opacity limit)
	Minn. R. 7007.0800 or 40 CFR Part 63 or Minn. R. 7017	Performance testing requirements.
EU 018	Minn. R. 7011.0715	Standards of Performance for Post-1969 Industrial Process Equipment (total particulate matter and opacity limit)
	Minn. R. 7007.0800	Pollution control equipment requirements.
EU026	40 CFR Part 63	Subject to the Taconite MACT Standard. Pollution control equipment requirements (filterable particulate matter limit).
	40 CFR § 52.21	Prevention of Significant Deterioration (PSD) requirements apply to the induration furnace. A new Best Achievable Control Technology (BACT) limit is being set for this emission unit. Fuel usage, CO and VOC limits from the 1987 PSD permit amendment No. 1 are carried forward into this permit.
	Minn. R. 7011.0610	Standards of Performance for Fossil Fuel Burning Direct Heating Equipment. Emissions of particulate matter, SO2 and opacity are regulated by this standard
	Minn. R. 7007.0800, subp. 4(D); Minn. R. 7007.0800, subp. 14; Minn. R. 7007.0800, subp. 16(J)	Permit Content rules for Title V operating permits that pertain to the monitoring and operation of the emission unit and control equipment. The requirements in this permit meet the requirements of EPA's periodic monitoring guidance.
	Minn. R. 7007.0800 or 40 CFR Part 63 or Minn. R.	Performance testing requirements.

Level	Applicable Regulations	Comments:
	7017	
EU 031 through EU 032	40 CFR Part 63	Subject to the Taconite MACT Standard. Pollution control equipment requirements (filterable particulate matter limit).
	Minn. R. 7011.0715	Standards of Performance for Post-1969 Industrial Process Equipment (total particulate matter and opacity limit)
	Minn. R. 7007.0800	Pollution control requirements.
	Minn. R. 7007.0800	Performance testing requirements.
EU 033	Minn. R. 7011.0715, subp. 1(b)	Standards of Performance for Post-1969 Industrial Process Equipment (opacity limit)
EU036 and EU037	Minn. R. 7011.2300	Standards of Performance for Stationary Internal Combustion Engines (opacity and SO <sub>2</sub> limits).
	40 CFR Sections 63	NESHAP Subpart ZZZZ Requirements (also known as the RICE MACT)

EU = emission unit, GP = group

### 3. Technical Information

#### 3.1 Setting and Changing Parameters under the Taconite NESHAP

The Facility operates several units subject to the Taconite NESHAP (40 CFR 63 subp. RRRRR). This regulation requires that continuous parameter monitoring systems (CPMS) be used to demonstrate continuous compliance with the emission limits. The facility uses scrubbers and baghouses to comply with the NESHAP. For these types of control equipment, the Taconite NESHAP requires that the company set minimum water flow rates and either fan amps or pressure drop across the control device. See the attached Control Equipment Monitoring Limits for current requirements.

The Taconite NESHAP allows the Permittee to change the parameter limits through performance testing, but does not specify the mechanism for changing these parameter limits. Based on discussions with US EPA Region 5 regarding similar conditions, however, the MPCA believes the parameter limits must be incorporated into a permit to be enforceable. For this reason, the permit contains the parameter limits that are current as of the time of permitting. Furthermore, the Permittee may change the parameter limits according to the process described below.

The Permittee may request to change the established parameter limits through a scheduled or voluntary performance test that demonstrates compliance with the emission limit. The Permittee must meet all notifications and submittal requirements for performance testing. The Permittee may then conduct the Performance test and may select revised parameter limits for MPCA review in accordance with the applicable regulations. After the facility submits its test results to the MPCA, the MPCA will review them and – if they indicate compliance with the Taconite

NESHAP – send out a Notice of Compliance (NOC) to the facility. The MPCA will then include these changes in the next permit action for the facility. One potential permit action is a reopening of the permit initiated by the MPCA to update these parameter limits.

**3.1 Ambient Air Quality Analysis**

Attachments to this permitting action discuss the ambient air quality analysis.

**3.2 Calculations of Potential to Emit**

Emission calculations are attached.

**3.4 Periodic Monitoring and CAM**

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

For CAM, the Permittee submitted a CAM proposal as required by 40 CFR § 64.3. It can be found as an Attachment to this TSD. Further discussion of decisions about CAM can be found in Table 4.

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

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

Table 4 summarizes the periodic monitoring requirements for those emission units for which the monitoring required by the applicable requirement is nonexistent or inadequate.

**Table 4. Periodic Monitoring**

<b>Emission Unit or Group</b>	<b>Requirement (basis)</b>	<b>Additional Monitoring</b>	<b>Discussion</b>
GP 001 through GP 004	Groups subject to the Taconite MACT Standard.	Pollution control equipment and operational requirements.	Groups subject to the Taconite MACT Standard. Pollution control equipment, performance testing and MACT standard requirements.

<b>Emission Unit or Group</b>	<b>Requirement (basis)</b>	<b>Additional Monitoring</b>	<b>Discussion</b>
	Pollution control equipment requirements (filterable particulate matter limit). (40 CFR Part 63)	Parametric monitoring and O&M Plan.	
	Total Particulate Matter: less than or equal to 0.3 grains/dry standard cubic foot of exhaust gas Total Particulate Matter greater than or equal to 85% control efficiency (Minn. R. 7011.0715)		
	Opacity: less than or equal to 20 percent opacity (Minn. R. 7011.0715)		
GP 005	Total Particulate Matter: less than or equal to 0.3 grains/dry standard cubic foot of exhaust gas Total Particulate Matter greater than or equal to 85% control efficiency (Minn. R. 7011.0715)	Pollution control equipment and operational requirements. Parametric monitoring and O&M Plan. Visible emissions checks or pressure drop readings or bag leak detectors.	
	Opacity: less than or equal to 20 percent opacity (Minn. R. 7011.0715)		
GP 006 through	Groups subject to the Taconite	Pollution control equipment and	Groups subject to the Taconite MACT Standard. Pollution control equipment, performance testing and

<b>Emission Unit or Group</b>	<b>Requirement (basis)</b>	<b>Additional Monitoring</b>	<b>Discussion</b>
GP 009	MACT Standard. Pollution control equipment requirements (filterable particulate matter limit). (40 CFR Part 63)	operational requirements. Parametric monitoring and O&M Plan.	MACT standard requirements.
	Total Particulate Matter: less than or equal to 0.3 grains/dry standard cubic foot of exhaust gas		
	Total Particulate Matter greater than or equal to 85% control efficiency (Minn. R. 7011.0715)		
	Opacity: less than or equal to 20 percent opacity (Minn. R. 7011.0715)		
GP 010	Opacity: less than or equal to 20 percent opacity (NSPS OOO)	Fugitive Dust Control Plan.	GP 010 (Fluxstone handling) is a wet process.
GP 011	Fugitive Dust Control Plan (Minn. R. 7011.0150 and 40 CFR Part 63)	Daily observations and corrective actions	MACT standard requirements.
GP 012 through GP 014	Groups subject to the Taconite MACT Standard. Pollution control equipment requirements (filterable	Pollution control equipment and operational requirements. Parametric monitoring and O&M Plan.	Groups subject to the Taconite MACT Standard. Pollution control equipment, performance testing and MACT standard requirements.



<b>Emission Unit or Group</b>	<b>Requirement (basis)</b>	<b>Additional Monitoring</b>	<b>Discussion</b>
	<p>particulate matter limit). (40 CFR Part 63)</p> <p>Total Particulate Matter: less than or equal to 0.3 grains/dry standard cubic foot of exhaust gas</p> <p>Total Particulate Matter greater than or equal to 85% control efficiency (Minn. R. 7011.0715)</p> <p>Opacity: less than or equal to 20 percent opacity (Minn. R. 7011.0715)</p>		
GP 015 through GP 017	Taconite MACT Requirements	MACT standard.	MACT standard requirements.
EU 001 through EU 002	Subject to the Taconite MACT Standard. Pollution control equipment requirements (filterable particulate matter limit). (40 CFR Part 63)	Pollution control equipment and operational requirements. Parametric monitoring and O&M Plan.	Subject to the Taconite MACT Standard. Pollution control equipment, performance testing and MACT standard requirements.
EU 018	Total Particulate Matter: less than or equal to 0.3 grains/dry standard cubic foot of exhaust gas Total Particulate Matter greater than or equal to 85% control	Pollution control equipment and operational requirements. Parametric monitoring and O&M Plan. Visible emissions checks or pressure drop readings or bag leak detectors.	

<b>Emission Unit or Group</b>	<b>Requirement (basis)</b>	<b>Additional Monitoring</b>	<b>Discussion</b>
	efficiency (Minn. R. 7011.0715)		
EU 026	<p>Subject to the Taconite MACT Standard. Pollution control equipment requirements (filterable particulate matter limit). (40 CFR Part 63)</p> <p>Nitrogen Oxides: less than or equal to 1088 lbs/hour (BACT)</p> <p>Fuel Usage: less than or equal to 270 million Btu's/hour (BACT)</p> <p>Volatile Organic Compounds: less than or equal to 9.1 lbs/hour(Limit to avoid PSD)</p> <p>Carbon Monoxide: less than or equal to 37.2 lbs/hour using 3-hour Average</p> <p>Total Particulate Matter: less than or equal to 0.3 grains/dry standard cubic foot of exhaust gas Total Particulate Matter greater than or equal to 85% control efficiency</p>	Pollution control equipment and operational requirements. Monitoring and recordkeeping.	Subject to the Taconite MACT Standard. Pollution control equipment, performance testing and MACT standard requirements.

Emission Unit or Group	Requirement (basis)	Additional Monitoring	Discussion
	(Minn. R. 7011) Sulfur Dioxide: less than or equal to 2 lbs/million Btu heat input when a liquid fossil fuel is burned. (Minn. R. 7011)		
EU 031 through EU 032	Subject to the Taconite MACT Standard. Pollution control equipment requirements (filterable particulate matter limit). (40 CFR Part 63) Total Particulate Matter: less than or equal to 0.3 grains/dry standard cubic foot of exhaust gas Total Particulate Matter greater than or equal to 85% control efficiency (Minn. R. 7011.0715) Opacity: less than or equal to 20 percent opacity (Minn. R. 7011.0715)	Pollution control equipment and operational requirements. Parametric monitoring and O&M Plan.	Groups subject to the Taconite MACT Standard. Pollution control equipment, performance testing and MACT standard requirements.
EU 033	Opacity: less than or equal to 20 percent opacity (Minn. R. 7011.0715)	Visible emission monitoring, corrective actions and recordkeeping.	Pellet Loadout Bin Transfer Point
EU 036 and	Opacity: less than or equal to	NESHAP Subpart <i>ZZZZ</i>	NESHAP requirements.

<b>Emission Unit or Group</b>	<b>Requirement (basis)</b>	<b>Additional Monitoring</b>	<b>Discussion</b>
EU 037	20 percent opacity (Minn. R. 7011) Sulfur Dioxide: less than or equal to 0.5 lbs/million Btu heat input		

A summary of testing frequency required for the Taconite NESHAP follows below:

**Table 4.1: Performance Test Frequency for Taconite NESHAP Emission Units**

<b>Emission unit</b>	<b>Frequency</b>	<b>Comment</b>
GP 003 (SV 009 / SV 010)	One representative stack tested once every five years.	Ore Crushing and Handling Flow Weighted Average is below 60 percent of the limit.
GP 008 (SV 018)	Once every five years.	Finished Pellet Handling Flow Weighted Average is below 60 percent of the limit.
GP 012 (SV 002 and SV 003)	One representative stack tested once every five years.	Ore Crushing and Handling Flow Weighted Average is below 60 percent of the limit.
GP 013 (SV 004, SV 005, SV 006, SV 007, SV 008 and SV 011)	One representative stack tested once every five years.	Ore Crushing and Handling Flow Weighted Average is below 60 percent of the limit.
GP 014 (SV 019, SV 020, SV 021, and SV 024,)	One representative stack tested once every five years.	Finished Pellet Handling Flow Weighted Average is below 60 percent of the limit.
SV 001	Once every five years.	Ore Crushing and Handling Flow Weighted Average is below 60 percent of the limit.
EU 026 (SV 014, SV 015, SV 016, and SV 017)	Each stack tested twice every five years.	Consistent with Taconite NESHAP requirement.
SV 022	Once every five years.	Finished Pellet Handling Flow Weighted Average is below 60 percent of the limit.

Since IPER measures a different pollutant and imposes a different limit, the testing frequency differs from that of the Taconite NESHAP. In addition, some emission units subject to the IPER are not subject to the Taconite NESHAP. The testing frequencies are summarized in the Table 9:

**Table 4.2: Performance Test Frequency for Emission Units Subject to IPER**

<b>Emission unit</b>	<b>Frequency</b>	<b>Comment</b>
GP 003 (SV 009 / SV 010)	One representative stack tested once every five years.	Historical stack tests indicate that emissions are below 60 percent of the limit.
GP 008 (SV 018)	Once every five years.	Historical stack tests indicate that emissions are below 60 percent of the limit.
GP 012 (SV 002 and SV 003)	One representative stack tested once every five years.	Historical stack tests indicate that emissions are below 60 percent of the limit.
GP 013 (SV 004, SV 005, SV 006, SV 007, SV 008 and SV 011)	One representative stack tested once every five years.	Historical stack tests indicate that emissions are below 60 percent of the limit.
GP 014 (SV 019, SV 020, SV 021, and SV 024)	One representative stack tested once every five years.	Historical stack tests indicate that emissions are below 60 percent of the limit.
SV 001	Once every five years.	Historical stack tests indicate that emissions are below 60 percent of the limit.
EU 026 (SV 014, SV 015, SV 016, and SV 017)	Each stack tested once every five years.	Historical stack tests indicate that emissions are below 60 percent of the limit.
SV 022	Once every five years.	Historical stack tests indicate that emissions are below 60 percent of the limit.

### **3.5 Insignificant Activities**

The Facility has several operations which are classified as insignificant activities. These are listed in the Appendix of the permit.

The permit is required to include periodic monitoring for all emissions units, including insignificant activities, per EPA guidance. The insignificant activities at this Facility are only subject to general applicable requirements. Using the criteria outlined earlier in this TSD, the following table documents the justification why no additional periodic monitoring is necessary for the current insignificant activities.

**Table 5. Insignificant Activities**

<b>Insignificant Activity</b>	<b>General Applicable Emission limit</b>	<b>Discussion</b>
Fuel use: space heaters fueled by, kerosene, natural gas, or propane	PM $\leq$ 0.6 or 0.4 lb/MMBtu, depending on year constructed Opacity $\leq$ 20% with exceptions  (Minn. R. 7011.0510/515)	For these units, based on the fuels used and EPA published emissions factors, it is highly unlikely that it could violate the applicable requirement. In addition, these types of units are typically operated and vented inside a building, so testing for PM or opacity is not feasible.
Infrared electric ovens	Opacity $\leq$ 20% (Minn. R. 7011.0105 or 7011.0110)	These units are not likely to have any emissions of particulate matter at this site. It is highly unlikely that they could violate the applicable requirement.
Fuel burning equipment (heaters, hot water heaters, etc...) fueled by natural gas and propane.	PM $\leq$ 0.6 or 0.4, depending on year constructed Opacity $\leq$ 20% with exceptions  (Minn. R. 7011.0510/515)	For these units, based on the fuels used and EPA published emissions factors, it is highly unlikely that they could violate the applicable requirements.
Small emergency generators fueled by natural gas and propane.	PM $\leq$ 0.6 or 0.4, depending on year constructed Opacity $\leq$ 20% with exceptions  (Minn. R. 7011.0510/515)	For these units, based on the fuels used and EPA published emissions factors, it is highly unlikely that they could violate the applicable requirements.
Fabrication operations: equipment used exclusively for forging, pressing, drawing, spinning, or extruding hot metals	PM, variable depending on airflow Opacity $\leq$ 20%  (Minn. R. 7011.0710/715)	While no known emissions estimation method exists for these units, based on general knowledge of how they operate, it is highly unlikely that they could generate significant particulate matter. In addition, these units would be operated and vented directly into a building, so testing is not feasible.

<b>Insignificant Activity</b>	<b>General Applicable Emission limit</b>	<b>Discussion</b>
Emissions from a laboratory, as defined in Minn. R. 7007.1300, subp. 3(G)	PM, variable depending on airflow Opacity $\leq$ 20% (Minn. R. 7011.0710/715)	These are very small, intermittent, bench-top operations that typically do not even have any emissions. It is highly unlikely that they could violate the applicable requirement.
Equipment used exclusively for packaging lubricants or greases;	PM, variable depending on airflow Opacity $\leq$ 20% (Minn. R. 7011.0710/715)	While no known emissions estimation method exists for these units, based on general knowledge of how they operate, it is highly unlikely that they could generate particulate matter. In addition, these units would be operated and vented directly into a building, so testing is not feasible.
Open tumblers with a batch capacity of 1,000 pounds or less	PM, variable depending on airflow Opacity $\leq$ 20% (Minn. R. 7011.0710/715)	For these units, it is highly unlikely that they could violate the applicable requirement. In addition, these units are vented inside a building, so testing for PM or opacity is not feasible.
Equipment used for hydraulic or hydrostatic testing	PM, variable depending on airflow Opacity $\leq$ 20% (Minn. R. 7011.0710/715)	While no known emissions estimation method exists for these units, based on general knowledge of how they operate, it is highly unlikely that they could generate particulate matter. In addition, these units would likely be operated and vented directly into a building, so testing is not feasible.
Brazing, soldering or welding equipment	PM, variable depending on airflow Opacity $\leq$ 20% (Minn. R. 7011.0710/715)	For these units, based on EPA published emissions factors, it is highly unlikely that they could violate the applicable requirement. In addition, these units are typically operated and vented inside a building, so testing for PM or opacity is not feasible.

<b>Insignificant Activity</b>	<b>General Applicable Emission limit</b>	<b>Discussion</b>
Blueprint copiers and photographic processes	Opacity $\leq$ 20% (Minn. R. 7011.0105 or 7011.0110))	While no known emissions estimation method exists for these units, based on general knowledge of how they operate, it is highly unlikely that they could generate visible emissions. In addition, these units would be operated and vented directly into an office area, so monitoring or testing is not feasible.
Cleaning operations: alkaline/phosphate cleaners and associated burners	PM, variable depending on airflow Opacity $\leq$ 20% (Minn. R. 7011.0610+ Minn. R. 7011.0710/715)	For these units, there are some factors available for the burners, but very little information regarding the cleaning operation itself. However, based on general knowledge of how they operate, it is highly unlikely that they could violate the applicable requirement or that testing would be feasible.
Individual units with actual emissions less than 2000 lb/year of certain pollutants	PM, variable depending on airflow Opacity $\leq$ 20% (with exceptions) (Minn. R. 7011.0715 and Minn. R. 7011.610)  or  SO <sub>2</sub> $\leq$ 0.5 lb/MMBtu Opacity $\leq$ 20% (Minn. R. 7011.2300)	For the natural gas and propane fired equipment (i.e. small emergency generator), based on the operating hours, the fuels used and EPA published emissions factors, it is highly unlikely that they could violate the applicable requirement.
Fugitive Emissions from unpaved entrance roads and parking lots	Requirement to take reasonable measures to prevent PM from becoming airborne (Minn. R. 7011.0150)	The main entrance road is paved and the parking lot is almost entirely paved, so the amount of unpaved entrance roads and parking lots is small. The draft permit does contain a general requirement that this standard must be met.



<b>Insignificant Activity</b>	<b>General Applicable Emission limit</b>	<b>Discussion</b>
Infrequent use of spray paint equipment for routine housekeeping or plant upkeep activities not associated with primary production processes at the stationary source	PM, variable depending on airflow or process weight rate Opacity $\leq$ 20% (Minn. R. 7011.0715)	While spray equipment will have the potential to emit particulate matter, these particular activities are those not associated with production, so they would be infrequent and usually occur outdoors. Testing or monitoring is not feasible.
Equipment venting PM/PM <sub>10</sub> inside a building, provided that emissions from the equipment are:  a). filtered through an air cleaning system; and  b). vented inside of the building 100% of the time	PM, variable depending on airflow Opacity $\leq$ 20% (Minn. R. 7011.0715)	For these units, it is highly unlikely that they could violate the applicable requirement. In addition, these units are vented inside a building, so testing for PM or opacity is not feasible.

### **3.6 Permit Organization**

In general, the permit meets the MPCA Delta Guidance for ordering and grouping of requirements. One area where this permit deviates slightly from Delta guidance is in the use of appendices. While appendices are fully enforceable parts of the permit, in general, any requirement that the MPCA thinks should be tracked (e.g., limits, submittals, etc.), should be in Table A or B. The main reason is that the appendices are word processing sections and are not part of the tracking system. Violation of the appendices can be enforced, but the computer system will not automatically generate the necessary enforcement notices or documents. Staff must generate these.

### **3.7 Comments Received**

Public Notice Period: January 01, 2011 - January 31, 2011

EPA 45-day Review Period: February 01, 2011 - March 17, 2011

Comments were not received during the comment period. Even so, the MPCA made administrative changes to the permit for clarification purposes.

#### 4. Permit Fee Assessment

This permit action is the reissuance of an individual Part 70 where additional points were assessed. The items generating those points were substantially completed prior to July 01, 2009; therefore, no application fees apply under Minn. R. 7002.0016, subp. 1.

#### 5. Conclusion

Based on the information provided by the facility, the MPCA has reasonable assurance that the proposed operation of the emission facility, as described in the Air Emission Permit No. 13700062-003, and this TSD, will not cause or contribute to a violation of applicable federal regulations and Minnesota Rules. This permit is being noticed/issued under strict issuance deadlines.

Staff Members on Permit Team:

- Steven Gorg (permitting)
- Steve Palzkill (enforcement)
- Andy Place (stack testing)
- David Beil (peer reviewer)
- Ruth Roberson (air modeling)
- Laurie O'Brien (support staff)
- Beckie Olson (support staff)

AQ File No. 257; [DQ 259](#), [1782](#), [1798](#), [2179](#), [2724](#)

Attachments:

1. Calculation Spreadsheets
2. Facility Description and CD-01 Forms
3. CAM Plan
4. PM<sub>2.5</sub> Testing, Modeling and Emission Calculation Letter

Attachment 1:  
Calculation Spreadsheets



Acrobat Document

Attachment 2:  
Facility Description and CD-01 Forms



Acrobat Document

Attachment 3:  
CAM Plan



Acrobat Document

Attachment 4:  
PM<sub>2.5</sub> Testing, Modeling and Emission Calculation Letter



Acrobat Document