

AIR EMISSION PERMIT NO. 07900009-001

IS ISSUED TO

UNIMIN MINNESOTA CORP - KASOTA PLANT

35496 468th Street
Kasota, Le Sueur County, MN 56050

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

Permit Type
Total Facility Operating Permit

Application Date
02/14/1996 (updated 2005)

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

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

Issue Date: May 1, 2006

Expiration: Permit does not expire
All Title I Conditions do not expire.

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

for Sheryl A. Corrigan
Commissioner
Minnesota Pollution Control Agency

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NOTICE TO THE PERMITTEE:

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

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

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

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

PERMIT SHIELD:

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

FACILITY DESCRIPTION:

Unimin Corporation – Kasota Plant is a silica sand mining and processing facility where a variety of sand and silica products are processed. The main sources of air emissions are crushers, screens, conveyors, storage piles and sand dryer. The pollutants of concern are total particulates and Particulate Matter less than 10 microns in diameter (PM₁₀). The facility uses water on the mined materials (to achieve 3 percent moisture content) prior to drying to control PM emissions. Three wet scrubbers and one dynacyclone control emissions from the dryer and post-drying conveyors and screens.

Facility is not eligible for the state nonmetallic minerals processing plant general permit because it operates an aggregate dryer.

TABLE A: LIMITS AND OTHER REQUIREMENTS**A-1**

05/01/06

Facility Name: Unimin Minnesota Corp - Kasota Plant

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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
<p>Ambient Air Quality Standards: The Permittee shall comply and demonstrate compliance with National Primary and Secondary Ambient Air Quality Standards, 40 CFR pt. 50 and with Minnesota Ambient Air Quality Standards, Minn. R. 7009.0010 to 7009.0080.</p> <p>The Permittee may demonstrate compliance through modeling, monitoring or an alternative widely accepted method approved in writing from the MPCA.</p>	<p>40 CFR pt. 50; Minn. Stat. Section 116.07, subd. 4a and 9; Minn. R. 7007.0080, subp. 5; Minn. R. 7007.0100, subps. 7A, 7L and 7M; Minn. R. 7007.0800, subps. 1, 2 and 4; Minn. R. 7009.0010-7009.0080</p>
Moisture Content: less than or equal to 1.5 percent	Title I Condition: Limit to avoid classification as major source and modification under 40 CFR Section 52.21 and Minn. R. 7007.3000 and under 40 CFR Section 70.2 and Minn. R. 7007.0200; Minn. R. 7007.0800, subp. 2
<p>Demonstrate that the feed material moisture content is greater than or equal to 1.5 percent by either 1 or 2 below:</p> <p>1. Test moisture content of each different feed material source (sampled at an area representative of the feed source and physically capable of being sampled), as follows:</p> <p>a. Use American Society for Testing and Materials (ASTM) method numbers D 2216-92 or D 4643-93 (or equivalent).</p> <p>b. Keep records of each moisture content test summarizing the method used, results, date, time, and initials of person performing test.</p> <p>c. Test weekly, when operating, unless three consecutive tests at the stationary source location show moisture contents of greater than or equal to 1.5 percent after which testing is no longer required until the source of the feed material changes.</p>	Title I Condition: Monitoring for limit to avoid classification as major source and modification under 40 CFR Section 52.21 and Minn. R. 7007.3000 and under 40 CFR Section 70.2 and Minn. R. 7007.0200; Minn. R. 7007.0800, subp. 2
<p>d. When testing indicates that feed material moisture content is less than 1.5 percent, or in situations where it is infeasible to sample and test, or where the Permittee elects not to sample and test, the Permittee must operate a moisture addition device at or immediately prior to the initial crusher(s) or initial screen(s) where unprocessed feed material is being fed to achieve a moisture content greater than or equal to 1.5 percent. Moisture addition during operation shall continue until subsequent moisture content testing demonstrates that feed material moisture content is greater than or equal to 1.5 percent.</p>	CONTINUED: Title I Condition: Monitoring for limit to avoid classification as major source and modification under 40 CFR Section 52.21 and Minn. R. 7007.3000 and under 40 CFR Section 70.2 and Minn. R. 7007.0200; Minn. R. 7007.0800, subp. 2
<p>Daily, when operating, either: (i) keep records of the date, water flow rate, material throughput rate, and initials of the person making the record and the time the record was made; or (ii) conduct moisture content testing daily on the feed material after water application following a. and b. above, and if results show moisture content is less than 1.5 percent, increase water addition to insure moisture is 1.5 percent or greater and re-test to verify.</p> <p>OR</p> <p>2. Keep records indicating that feed material is being removed from below the water table - or from below the surface of a waterway (e.g., creek, river, lake) - or that the feed material is recycled asphalt pavement. Records shall include a description of the source (if recycled asphalt pavement, so indicate), the corresponding dates, and the initials of the person making the record.</p>	CONTINUED: Title I Condition: Monitoring for limit to avoid classification as major source and modification under 40 CFR Section 52.21 and Minn. R. 7007.3000 and under 40 CFR Section 70.2 and Minn. R. 7007.0200; Minn. R. 7007.0800, subp. 2
<p>Non-Process Dust Control:</p> <p>All reasonable measures shall be taken to prevent avoidable amounts of particulate matter from becoming airborne. In a practical manner this refers to preventing avoidable visible dust emissions beyond the lot line surrounding the stationary source. Control of non-process dust emissions can be achieved through such measures as applying water or commercially available dust suppressant to stockpiles, unpaved roads and handling areas.</p> <p>In addition, the following requirements apply to the Permittee:</p> <p>1. Record date and time of action and initials of person making the record.</p> <p>2. Record amount of water or dust suppressant applied.</p> <p>3. If a commercially available dust suppressant is used, it shall be applied in accordance with the manufacturer's guidelines. The Permittee must keep a copy of these manufacturer's guidelines.</p>	Title I Condition: Title I Condition: Monitoring for limit to avoid classification as major source and modification under 40 CFR Section 52.21 and Minn. R. 7007.3000 and under 40 CFR Section 70.2 and Minn. R. 7007.0200; Minn. R. 7007.0800, subp. 2

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

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<p>4. Record the location (e.g., on a site sketch) of water or dust suppressant application.</p> <p>5. Install a rain gauge at the site and record the precipitation in the previous 24 hours for each day of operation at the site.</p> <p>6. Make and record basic weather observations according to the MPCA Weather Summary Criteria that best characterize each operating day.</p> <p>7. Unpaved roads at the site shall be posted with speed limit signs indicating a maximum speed of 10 miles per hour.</p> <p>8. Equipment to apply water or dust suppressant shall always be available at the site or on call for use at the site within a given operating day.</p>	<p>CONTINUED: Title I Condition: Monitoring for limit to avoid classification as major source and modification under 40 CFR Section 52.21 and Minn. R. 7007.3000 and under 40 CFR Section 70.2 and Minn. R. 7007.0200; Minn. R. 7007.0800, subp. 2</p>
<p>Labeling Requirements: Permanently affix the manufacturer's serial number (or otherwise unique identifying number) to each piece of crushing, screening, transfer operation, and stationary internal combustion engine equipment for tracking purposes within 60 days of permit issuance. The number shall be permanently affixed and maintained so that it is readable and visible at all times from a safe distance at each stationary source. This number shall correspond to the number contained in records regarding the piece of equipment.</p>	<p>Minn. R. 7007.0800, subp. 2</p>
<p>OPERATIONAL REQUIREMENTS</p>	<p>hdr</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 & 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.</p>	<p>Minn. R. 7007.0800, subp. 14 and Minn. R. 7007.0800, subp. 16(J)</p>
<p>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.</p>	<p>Minn. R. 7019.1000, subp. 4</p>
<p>Fugitive Emissions: Do not cause or permit the handling, use, transporting, or storage of any material in a manner which may allow avoidable amounts of particulate matter to become airborne. Comply with all other requirements listed in Minn. R. 7011.0150.</p>	<p>Minn. R. 7011.0150</p>
<p>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.</p>	<p>Minn. R. 7030.0010 - 7030.0080</p>
<p>Inspections: The Permittee shall comply with the inspection procedures and requirements as found in Minn. R. 7007.0800, subp. 9(A).</p>	<p>Minn. R. 7007.0800, subp. 9(A)</p>
<p>The Permittee shall comply with the General Conditions listed in Minn. R. 7007.0800, subp. 16.</p>	<p>Minn. R. 7007.0800, subp. 16</p>
<p>PERFORMANCE TESTING</p>	<p>hdr</p>
<p>Performance Testing: Conduct all performance tests in accordance with Minn. R. ch. 7017 unless otherwise noted in Tables A, B, and/or C</p>	<p>Minn. R. ch. 7017</p>
<p>Performance Test Notifications and Submittals: Performance Tests are due as outlined in Tables A and B of the permit. See Table B for additional testing requirements. Performance Test Notification (written): due 30 days before each Performance Test Performance Test Plan: due 30 days before each Performance Test Performance Test Pre-test Meeting: due 7 days before each Performance Test Performance Test Report: due 45 days after each Performance Test Performance Test Report - Microfiche Copy: due 105 days after each Performance Test The Notification, Test Plan, and Test Report may be submitted in alternative format as allowed by Minn. R. 7017.2018.</p>	<p>Minn. Rs. 7017.2030, subp. 1-4, 7017.2018 and Minn. R. 7017.2035, subp. 1-2</p>
<p>Limits set as a result of a performance test (conducted before or after permit issuance) apply until superseded as specified by Minn. R. 7017.2025 following formal review of a subsequent performance test on the same unit.</p>	<p>Minn. R. 7017.2025</p>

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

05/01/06

Facility Name: Unimin Minnesota Corp - Kasota Plant

Permit Number: 07900009 - 001

MONITORING REQUIREMENTS	hdr
Monitoring Equipment Calibration: Annually calibrate all required monitoring equipment (any requirements applying to continuous emission monitors are listed separately in this permit).	Minn. R. 7007.0800, subp. 4(D)
Operation of Monitoring Equipment: Unless otherwise noted in Tables A, B, and/or C, monitoring a process or control equipment connected to that process is not necessary during periods when the process is shutdown, or during checks of the monitoring systems, such as calibration checks and zero and span adjustments. If monitoring records are required, they should reflect any such periods of process shutdown or checks of the monitoring system.	Minn. R. 7007.0800, subp. 4(D)
MODELING REQUIREMENTS	hdr
RECORDKEEPING	hdr
Record keeping: Retain all records at the stationary source for a period of five (5) years from the date of monitoring, sample, measurement, or report. Records which must be retained at this location include all calibration and maintenance records, all original recordings for continuous monitoring instrumentation, and copies of all reports required by the permit. Records must conform to the requirements listed in Minn. R. 7007.0800, subp. 5(A).	Minn. R. 7007.0800, subp. 5(C)
Recordkeeping: Maintain records describing any insignificant modifications (as required by Minn. R. 7007. 1250, subp. 3) or changes contravening permit terms (as required by Minn. R. 7007.1350 subp. 2), including records of the emissions resulting from those changes.	Minn. R. 7007. 0800, subp. 5(B)
REPORTING/SUBMITTALS	hdr
Shutdown Notifications: Notify the Commissioner at least 24 hours in advance of a planned shutdown of any control equipment or process equipment if the shutdown would cause any increase in the emissions of any regulated air pollutant. If the owner or operator does not have advance knowledge of the shutdown, notification shall be made to the Commissioner as soon as possible after the shutdown. However, notification is not required in the circumstances outlined in Items A, B and C of Minn. R. 7019.1000, subp. 3. At the time of notification, the owner or operator shall inform the Commissioner of the cause of the shutdown and the estimated duration. The owner or operator shall notify the Commissioner when the shutdown is over.	Minn. R. 7019.1000, subp. 3
Breakdown Notifications: Notify the Commissioner within 24 hours of a breakdown of more than one hour duration of any control equipment or process equipment if the breakdown causes any increase in the emissions of any regulated air pollutant. The 24-hour time period starts when the breakdown was discovered or reasonably should have been discovered by the owner or operator. However, notification is not required in the circumstances outlined in Items A, B and C of Minn. R. 7019.1000, subp. 2. At the time of notification or as soon as possible thereafter, the owner or operator shall inform the Commissioner of the cause of the breakdown and the estimated duration. The owner or operator shall notify the Commissioner when the breakdown is over.	Minn. R. 7019.1000, subp. 2
Notification of Deviations Endangering Human Health or the Environment: As soon as possible after discovery, notify the Commissioner or the state duty officer, either orally or by facsimile, of any deviation from permit conditions which could endanger human health or the environment.	Minn. R. 7019.1000, subp. 1
Notification of Deviations Endangering Human Health or the Environment Report: Within 2 working days of discovery, notify the Commissioner in writing of any deviation from permit conditions which could endanger human health or the environment. Include the following information in this written description: 1. the cause of the deviation; 2. the exact dates of the period of the deviation, if the deviation has been corrected; 3. whether or not the deviation has been corrected; 4. the anticipated time by which the deviation is expected to be corrected, if not yet corrected; and 5. steps taken or planned to reduce, eliminate, and prevent reoccurrence of the deviation.	Minn. R. 7019.1000, subp. 1
Application for Permit Amendment: If a permit amendment is needed, submit an application in accordance with the requirements of Minn. R. 7007.1150 through Minn. R. 7007.1500. Submittal dates vary, depending on the type of amendment needed.	Minn. R. 7007.1150 through Minn. R. 7007.1500
Extension Requests: The Permittee may apply for an Administrative Amendment to extend a deadline in a permit by no more than 120 days, provided the proposed deadline extension meets the requirements of Minn. R. 7007.1400, subp. 1(H).	Minn. R. 7007.1400, subp. 1(H)

TABLE A: LIMITS AND OTHER REQUIREMENTS

Facility Name: Unimin Minnesota Corp - Kasota Plant
Permit Number: 07900009 - 001

Emission Fees: due 60 days after receipt of an MPCA bill.	Minn. R. 7002.0005 through Minn. R. 7002.0095
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TABLE A: LIMITS AND OTHER REQUIREMENTS**A-5**

05/01/06

Facility Name: Unimin Minnesota Corp - Kasota Plant

Permit Number: 07900009 - 001

Subject Item: GP 001 NSPS Limits (Belt Conveyors, Storage Bins, Screening - Not exhausted to wet scrubber)**Associated Items:** EU 002 VC-01

EU 004 BC-01

EU 005 BC-02

EU 006 BC-03

EU 007 BC-04

EU 008 BC-05

EU 009 BC-07 (In Boneyard at Plant)

EU 010 BC-08 (In Boneyard at Plant)

EU 011 BC-09 (In Boneyard at Plant)

EU 012 BC-11 (In Boneyard at Plant)

EU 013 BC-20

EU 014 BC-21

EU 016 VC-101 (used to be FE-01)

EU 020 BC-106

EU 021 VS-101

EU 022 VS-102

EU 027 BC-204

EU 028 BC-205

EU 029 BC-206

EU 030 BC-207

EU 032 BN-302

EU 033 BN-303

What to do	Why to do it
Opacity: less than or equal to 10 percent opacity	40 CFR Section 60.672(b) and Minn. R. 7011.3350

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

05/01/06

Facility Name: Unimin Minnesota Corp - Kasota Plant

Permit Number: 07900009 - 001

Subject Item: GP 002 NSPS Limits (Stack emissions using a wet scrubber)**Associated Items:** CE 002 Wet Scrubber - High Efficiency

CE 004 Wet Scrubber - High Efficiency

EU 023 CR-102

EU 051 VS-413

EU 053 VS-415

EU 054 VS-416

EU 055 VS-417

EU 057 VS-419

EU 058 VS-420

EU 059 VS-421

SV 002

What to do	Why to do it
Total Particulate Matter: less than or equal to 0.022 grains/dry standard cubic foot	40 CFR Section 60.672(a)(1) and Minn. R. 7011.3350
Pressure Drop: greater than or equal to 2 inches of water column and less than or equal to 4.5 inches of water column on CE004 unless a new range is set pursuant to Minn. R. 7017.2025, subp. 3, based on the values recorded during the most recent MPCA approved performance test where compliance was demonstrated. Record the pressure drop once every 24 hours when in operation.	Minn. R. 7007.0800, subp. 4, 5 and 14
Water flow rate: greater than or equal to 20 gallons/minute on CE004 unless a new range is set pursuant to Minn. R. 7017.2025, subp. 3, based on the values recorded during the most recent MPCA approved performance test where compliance was demonstrated. Record the water flow rate once every 24 hours when in operation.	Minn. R. 7007.0800, subp. 4, 5 and 14
Monitoring: Install, calibrate and maintain a device for the continuous measurement of the pressure loss of the gas stream through the scrubber. The monitoring device must be certified by the manufacturer to be accurate within ± 250 pascals ± 1 inch water gauge pressure and must be calibrated on an annual basis in accordance with the manufacturer's instructions.	40 CFR Section 60.674(a) and Minn. R. 7011.3350
Monitoring: Install, calibrate and maintain a device for the continuous measurement of the scrubbing liquid flow rate to the wet scrubber. The monitoring device must be certified by the manufacturer to be accurate within ± 5 percent of design scrubbing liquid flow rate and must be calibrated on an annual basis in accordance with manufacturer's instructions.	40 CFR Section 60.674(b) and Minn. R. 7011.3350
Recordkeeping: Record the measurements of both the change in pressure of the gas stream across the scrubber and the scrubbing liquid flow rate daily.	40 CFR Section 60.676(c) and Minn. R. 7011.3350
Reporting: Submit semiannual reports to the Administrator of occurrences when the measurements of the scrubber pressure loss (or gain) and liquid flow rate differ by more than ± 30 percent from the averaged determined during the most recent performance test.	40 CFR Section 60.676(d) and Minn. R. 7011.3350
(e) Reporting: The reports under paragraph (d) shall be postmarked within 30 days following the end of the second and fourth calendar quarters.	40 CFR Section 60.676(e) and Minn. R. 7011.3350
Periodic Inspections: At least once per calendar quarter, or more frequently as required by the manufacturing specifications, inspect the control equipment components. Maintain a written record of these inspections.	Minn. R. 7007.0800, subp. 4, 5 and 14
Corrective Actions: Take corrective action as soon as possible if any of the following occur: - the recorded pressure drop or water flow rate are outside the required operating range; or - the wet scrubber or any of its components are found during the inspections to need repair. Corrective actions shall return the pressure drop and water flow rate to within the permitted range, and/or include completion of necessary repairs identified during the inspection, as applicable. Corrective actions include, but are not limited to, those outlined in the O&M Plan. Keep a record of the type and date of any corrective action taken.	Minn. R. 7007.0800, subp. 4, 5 and 14

TABLE A: LIMITS AND OTHER REQUIREMENTS

Facility Name: Unimin Minnesota Corp - Kasota Plant
Permit Number: 07900009 - 001

Subject Item: GP 003 Noncombustion Equipment not Subject to NSPS (Without Control Equipment)

- Associated Items:
- EU 001 HO-01
 - EU 003 JC-101
 - EU 015 HO-101
 - EU 017 BC-102
 - EU 018 BC-103
 - EU 019 BC-104
 - EU 024 BC-201
 - EU 025 BC-202
 - EU 026 BC-203
 - EU 031 BN-301
 - EU 034 BC-301

What to do	Why to do it
Total Particulate Matter: less than or equal to 0.3 grains/dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735.	Minn. R. 7011.0715, subp. 1(A)
Opacity: less than or equal to 20 percent opacity	Minn. R. 7011.0715, subp. 1(B)

TABLE A: LIMITS AND OTHER REQUIREMENTS

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05/01/06

Facility Name: Unimin Minnesota Corp - Kasota Plant

Permit Number: 07900009 - 001

Subject Item: GP 004 Noncombustion Equipment not Subject to NSPS (Stack emissions using a wet scrubber)

Associated Items: CE 002 Wet Scrubber - High Efficiency

EU 037 BE-401

EU 038 BE-402

EU 039 VS-401

EU 040 VS-402

EU 041 VS-403

EU 042 VS-404

EU 043 VS-405

EU 044 VS-406

EU 045 VS-407

EU 046 VS-408

EU 047 VS-409

EU 048 VS-410

EU 049 VS-411

EU 050 VS-412

EU 052 VS-414

EU 056 VS-418 (used to be VS-413)

EU 060 BC-401

EU 061 BC-501

EU 062 BC-502

EU 063 BE-501

EU 064 BN-401

EU 065 BN-402

EU 066 BN-403

EU 067 BN-404

EU 068 BN-405

EU 069 BN-406

EU 070 BN-407

EU 071 BN-408

EU 072 BN-409

SV 002

What to do	Why to do it
Total Particulate Matter: greater than or equal to 90 percent control efficiency for CE002.	Title I Condition: Limit taken to avoid classification as a major source and modification under 40 CFR Section 52.21; Minn. R. 7007.0800, subp. 2 and 14
Particulate Matter < 10 micron: greater than or equal to 90 percent control efficiency for CE002.	Title I Condition: Limit taken to avoid classification as a major source and modification under 40 CFR Section 52.21; to avoid classification as a major source under 40 CFR Section 70.2; Minn. R. 7007.0800, subp. 2 and 14
Total Particulate Matter: less than or equal to 0.3 grains/dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735.	Minn. R. 7011.0715, subp. 1(A)

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

05/01/06

Facility Name: Unimin Minnesota Corp - Kasota Plant

Permit Number: 07900009 - 001

Opacity: less than or equal to 20 percent opacity	Minn. R. 7011.0715, subp. 1(B)
Pressure Drop: greater than or equal to 3.5 inches of water column and less than or equal to 8 inches of water column for CE002 unless a new range is set pursuant to Minn. R. 7017.2025, subp. 3, based on the values recorded during the most recent MPCA approved performance test where compliance was demonstrated. Record the pressure drop once every 24 hours when in operation.	Minn. R. 7007.0800, subp. 4, 5 and 14
Water flow rate: greater than or equal to 30 gallons/minute unless a new range is set pursuant to Minn. R. 7017.2025, subp. 3, based on the values recorded during the most recent MPCA approved performance test where compliance was demonstrated. Record the water flow rate once every 24 hours when in operation.	Minn. R. 7007.0800, subp. 4, 5 and 14
Periodic Inspections: At least once per calendar quarter, or more frequently as required by the manufacturing specifications, inspect the control equipment components. Maintain a written record of these inspections.	Minn. R. 7007.0800, subp. 4, 5 and 14
Corrective Actions: Take corrective action as soon as possible if any of the following occur: - the recorded pressure drop or water flow rate are outside the required operating range; or - the wet scrubber or any of its components are found during the inspections to need repair. Corrective actions shall return the pressure drop and water flow rate to within the permitted range, and/or include completion of necessary repairs identified during the inspection, as applicable. Corrective actions include, but are not limited to, those outlined in the O&M Plan. Keep a record of the type and date of any corrective action taken.	Minn. R. 7007.0800, subp. 4, 5 and 14

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

05/01/06

Facility Name: Unimin Minnesota Corp - Kasota Plant

Permit Number: 07900009 - 001

Subject Item: SV 001 (CE001 Wet Scrubber)**Associated Items:** EU 035 Burner (DR-301)

EU 036 Dryer (DR-301)

What to do	Why to do it
Allowed Fuels: Diesel fuel and natural gas. No other fuels shall be used.	Title I Condition. Limit to avoid classification as major source under 40 CFR Section 52.21 and Minn. R. 7007.3000; limit to avoid major source classification under 40 CFR Section 70.2 and Minn. R. 7007.0200
Total Particulate Matter: greater than or equal to 90 percent control efficiency for CE001.	Title I Condition: Limit taken to avoid classification as a major source and modification under 40 CFR Section 52.21; Minn. R. 7007.0800, subp. 2 and 14
Particulate Matter < 10 micron: greater than or equal to 90 percent control efficiency for CE001.	Title I Condition: Limit taken to avoid classification as a major source and modification under 40 CFR Section 52.21; to avoid classification as a major source under 40 CFR Section 70.2; Minn. R. 7007.0800, subp. 2 and 14
Opacity: less than or equal to 20 percent opacity except for one six-minute period per hour of not more than 60 percent opacity.	Minn. R. 7011.0610, subp. 1(A)(2)
Total Particulate Matter: less than or equal to 0.3 grains/dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735.	Minn. R. 7011.0610, subp. 1(A)(1)
Pressure Drop: greater than or equal to 4 inches of water column and less than or equal to 12 inches of water column for CE001 unless a new range is set pursuant to Minn. R. 7017.2025, subp. 3, based on the values recorded during the most recent MPCA approved performance test where compliance was demonstrated. Record the pressure drop once every 24 hours when in operation.	Minn. R. 7007.0800, subp. 4, 5 and 14
Water flow rate: greater than or equal to 65 gallons/minute for CE001 unless a new range is set pursuant to Minn. R. 7017.2025, subp. 3, based on the values recorded during the most recent MPCA approved performance test where compliance was demonstrated. Record the water flow rate once every 24 hours when in operation.	Minn. R. 7007.0800, subp. 4, 5 and 14

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

05/01/06

Facility Name: Unimin Minnesota Corp - Kasota Plant

Permit Number: 07900009 - 001

Subject Item: EU 073 LS-01**Associated Items:** CE 003 Fabric Filter - Low Temperature, i.e., T<180 Degrees F

SV 003

What to do	Why to do it
Total Particulate Matter: greater than or equal to 99 percent control efficiency for CE003.	Title I Condition: Limit taken to avoid classification as a major source and modification under 40 CFR Section 52.21; Minn. R. 7007.0800, subp. 2 and 14
Total Particulate Matter: less than or equal to 0.3 grains/dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735.	Minn. R. 7011.0715, subp. 1(A)
Opacity: less than or equal to 20 percent opacity	Minn. R. 7011.0715, subp. 1(B)
Pressure Drop: greater than or equal to 1.5 inches of water column and less than or equal to 3 inches of water column unless a new range is set pursuant to Minn. R. 7017.2025, subp. 3, based on the values recorded during the most recent MPCA approved performance test where compliance was demonstrated. Record the pressure drop once every 24 hours when in operation.	Minn. R. 7007.0800, subp. 4, 5 and 14
Visible Emissions: Check the fabric filter stack (SV003) for any visible emissions once each day of operation during daylight hours. During inclement weather, read and record the pressure drop across the fabric filter, once each day of operation.	Minn. R. 7007.0800, subp. 4, 5 and 14
Periodic Inspections: At least once per calendar quarter, or more frequently as required by the manufacturing specifications, inspect the control equipment components. Maintain a written record of these inspections.	Minn. R. 7007.0800, subp. 4, 5 and 14
Corrective Actions: Take corrective action as soon as possible if any of the following occur: - visible emissions are observed; - the recorded pressure drop is outside the required operating range; or - the fabric filter or any of its components are found during the inspections to need repair. Corrective actions shall return the pressure drop to within the permitted range, 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&M Plan. Keep a record of the type and date of any corrective action taken.	Minn. R. 7007.0800, subp. 4, 5 and 14

TABLE B: SUBMITTALS**B-1** 05/01/06

Facility Name: Unimin Minnesota Corp - Kasota Plant
Permit Number: 07900009 - 001

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

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

Send any application for a permit or permit amendment to:

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

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

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

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

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

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

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

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

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

TABLE B: ONE TIME SUBMITTALS OR NOTIFICATIONS**B-2** 05/01/06

Facility Name: Unimin Minnesota Corp - Kasota Plant

Permit Number: 07900009 - 001

What to send	When to send	Portion of Facility Affected
Computer Dispersion Modeling Protocol	due 180 days after Permit Issuance for PM10. This protocol will describe the proposed modeling methodology and input data, in accordance with MPCA modeling guidance for Title V air dispersion modeling analyses. This is a state-only requirement and is not enforceable by the EPA Administrator or citizens under the Clean Air Act.	Total Facility
Computer Dispersion Modeling Results	due 365 days after Permit Issuance for PM10. To be submitted after the MPCA has reviewed and approved the modeling protocol. The submittal should adhere to MPCA modeling guidance for Title V air dispersion modeling analyses. This is a state-only requirement and is not enforceable by the EPA Administrator or citizens under the Clean Air Act.	Total Facility

TABLE B: RECURRENT SUBMITTALS**B-3** 05/01/06

Facility Name: Unimin Minnesota Corp - Kasota Plant

Permit Number: 07900009 - 001

What to send	When to send	Portion of Facility Affected
Semiannual Deviations Report	due 30 days after end of each calendar half-year following Permit Issuance. The first semiannual report submitted by the Permittee shall cover the calendar half-year in which the permit is issued. The first report of each calendar year covers January 1 - June 30. The second report of each calendar year covers July 1 - December 31. If no deviations have occurred, the Permittee shall submit the report stating no deviations.	Total Facility
Compliance Certification	due 30 days after end of each calendar year following Permit Issuance (for the previous calendar year). To be submitted to the Commissioner on a form approved by the Commissioner. This report covers all deviations experienced during the calendar year.	Total Facility
Emissions Inventory Report	due 91 days after end of each calendar year following Permit Issuance. To be submitted on a form approved by the Commissioner.	Total Facility

APPENDIX MATERIAL

Facility Name: Unimin Minnesota Corp - Kasota Plant
Permit Number: 07900009-001

WEATHER SUMMARY CRITERIA

Sky Conditions

CLR	<1/10 cloud coverage
SCT (Ptly Cldy)	1/10-5/10 cloud coverage (opaque)
BKN (Mstly Cldy)	6/10-9/10 cloud coverage (opaque)
OVC (Cloudy)	10/10 cloud coverage (opaque)
THN OVC	Sky is completely covered with high thin clouds and <5/10 cloud coverage is opaque

Note: The cloud coverage is a cumulative total of all cloud layers.

Weather Conditions

Fog	May also be associated with drizzle and may obstruct sky
Drizzle	Small particles of rain many times associated with fog
Lt Rain	Continuous falling at a light rate (good horizontal visibility)
Mod Rain	Continuous falling at a mod. rate (horiz. visibility decreased)
Hvy. Rain	Continuous falling at heavy rate; in sheets (horizontal visibility low)
T-Strm	Thunderstorm -- thunder, lightning, and usually mod. to hvy. rain
Hail	Associated with thunderstorms
Frz Rain	Rain that freezes on contact of cold objects; glazing
Sleet	Mixture of rain and ice pellets
Ice Pellets	Clear/mostly translucent pellets of ice -- not easily broken/crushed
Snw Grns/Snw Pellets	Hard/crunchy opaque (white) pellets of snow -- easily crushed
Lt Snow	Falling at a light rate; flurries (good horizontal visibility)
Mod Snow	Falling at a moderate rate (horizontal visibility decreased)
Hvy Snow	Falling at a heavy rate (poor horizontal visibility)

Wind Scale

0-10 MPH	Light Breeze	Leaves rustle
10-20 MPH	Light Wind	Small tree branches move; wind extends light flag
20-30 MPH	Mod. Wind	Large branches in motion; umbrella used with difficulty
30-40 MPH	Mod. Gale	Whole trees in motion; difficulty walking against wind
40-50 MPH	Strong Gale	Twigs break off of trees

Temperature

Approximate using a range of 5 degrees Fahrenheit if the actual temperature is not known.

TECHNICAL SUPPORT DOCUMENT
For
AIR EMISSION PERMIT NO. 07900009-001

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:

Applicant/Address	Stationary Source/Address (SIC Code: 1446)
Unimin Corporation – Kasota Plant	Route 1, Box 269a Kasota, MN 56058 Le Sueur County
Contact: Shelby Hudgens Phone: (580) 456-7772	

1.2. Description of the Permit Action

Unimin Corporation – Kasota Plant is a silica sand mining and processing facility where a variety of sand and silica products are processed. The main sources of air emissions are crushers, screens, conveyors, storage piles and sand dryer. The pollutants of concern are total particulates and Particulate Matter less than 10 microns in diameter (PM₁₀). The facility uses water on the mined materials (to achieve 3 percent moisture content) prior to drying to control particulate matter emissions. Three wet scrubbers and one dynacyclone control emissions from the dryer and post-drying conveyors and screens.

Facility is not eligible for the state nonmetallic minerals processing plant general permit because it operates an aggregate dryer.

1.3 Description of any Changes Allowed with this Permit Issuance

February 2004 - Modification application submitted for installation of four dry screens (VS-413, VS-419, VS-420, VS-421) four belt conveyors handling damp material (BC-204, BC-205, BC-206, BC-207), and two material drain bins (BN-302 and BN-303). The existing baghouse dust collector, DC-401, will be replaced with a high efficiency wet scrubber dust collector unit (WS-401) to better control emissions from the existing screens as well as the four new screens. Also, existing screen VS-413 will be relocated and renamed VS-418, which will also report to WS-401. The new wet scrubber will have 99 percent control efficiency.

April 2004 - Modification to install a wet scrubber on a currently uncontrolled damp material crusher. New wet scrubber WS-101 will be installed on damp sand crusher CR-102. Crusher is subject to NSPS, Subpart OOO. Performance tested on April 6, 2004 - Method 9 opacity. Equipment is a Sly Impinjet Scrubber.

1.4 Permit History

Permit Number and Issuance Date	Action Authorized
808-81-I-1 October 8, 1981	Installation permit for fluidized bed sand dryer, wet scrubber and fabric baghouse.
808B-88-OT-1 February 17, 1988	Permit for operation of sand processing plant.
808B-93-I/O-1 April 19, 1993	Permit for construction and operation of six conveyors at Industrial Sand Processing Plant.
0790009-003 March 7, 1995	Permit for installation and operation of a screen and conveyor.
June 12, 1996	Application submitted for Part 70 permit
February 18, 2004	See Section 1.3
April 2004	See Section 1.3
February 1, 2005	Updated State Air Permit application submitted

1.5. Facility Emissions:

Table 1. Total Facility Potential to Emit Summary

	PM tpy	PM ₁₀ tpy	SO ₂ tpy	NO _x tpy	CO tpy	VOC Tpy	Single HAP tpy	All HAPs Tpy
Total Facility Unrestricted Potential Emissions	698.5	111.4	7.4	23.2	14.1	0.92	0	0
Total Facility Limited Potential Emissions	146.5	57.5	7.4	23.2	14.1	0.92	0	0
Total Facility Actual Emissions (2003)	68	1.0	0.6	5.6	4.5	0.3	HAPs not reported in emission inventory	

Table 2. Facility Classification

Classification	Major/Affected Source	Synthetic Minor	Minor
PSD		PM	PM ₁₀ , NO _x , SO ₂ , CO, VOC
Part 70 Permit Program		PM ₁₀	PM, NO _x , SO ₂ , CO, VOC
Part 63 NESHAP			X

2. Regulatory and/or Statutory Basis

New Source Review

The facility is a synthetic minor source for PM, since potential emissions after control are less than 250 tons per year. The facility is a minor source for PM₁₀, NO_x, CO, VOC, and SO₂.

Part 70 Permit Program

The facility is a synthetic minor source for PM₁₀, since potential emissions after control are less than 100 tons per year.

New Source Performance Standards (NSPS)

The facility is subject to NSPS, Subpart OOO, Standards of Performance for Nonmetallic Mineral Processing Plants.

National Emission Standards for Hazardous Air Pollutants (NESHAP)

There are no National Emission Standards for Hazardous Air Pollutants applicable to the operations at this facility.

Minnesota State Rules

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

- Minn. R. 7011.0610 Standards of Performance for Existing Direct Heating Equipment
- Minn. R. 7011.0715 Standards of Performance for Post-1969 Industrial Process Equipment
- Minn. R. 7011.2300 Standards of Performance for Stationary Internal Combustion Engines
- Minn. R. 7011.3350 Standards of Performance for New Nonmetallic Mineral Processing Plants

Table 3. Regulatory Overview of Facility

EU, GP, or SV	Applicable Regulations	Comments:
Facility	Title I Condition 40 CFR § 52.21 Minn. R. 7007.3000	Operational limits taken to avoid classification as a major source as defined by 40 CFR § 52.21 and Minn. R. 7007.3000 and major source classification under 40 CFR § 70.2 and Minn. R. 7007.0200. (Minimum limit on moisture content.)
GP001	40 CFR pt. 60, subp. OOO; Minn. R. 7011.3350	New Source Performance Standards (NSPS) for Nonmetallic Mineral Processing Plants. State Standards of Performance for New Nonmetallic Mineral Processing Plants (Limits on opacity for applicable units not exhausted to a wet scrubber)
GP002	40 CFR pt. 60, subp. OOO; Minn. R. 7011.3350	New Source Performance Standards (NSPS) for Nonmetallic Mineral Processing Plants. State Standards of Performance for New Nonmetallic Mineral Processing Plants (limits on total particulate matter for applicable units exhausted to a wet scrubber)
GP003 GP004	Minn. R. 7011.0715	Standards of Performance for Post 1969 Industrial Process Equipment. (Limits on opacity and total particulate matter for Non-NSPS Aggregate Processing Equipment.)
SV001	Minn. R. 7011.0610	Fossil Fuel-burning Direct Heating Equipment (Aggregate Dryer) There is no SO ₂ standard since sum of heat input is less than 250 MMBtu/hr at stationary source.
Facility	Minn. R. 7007.0800, subp. 2	Labeling requirements, and dispersion modeling since previous screening modeling indicated may be an issue

3. Technical Information

3.1 Calculations of Potential to Emit

Attachment 1 contains detailed spreadsheets and supporting information prepared by EarthTech, the MPCA and the Permittee.

In general, emission factors are taken from AP-42, Fifth Edition, Chapter 11.19.2, “Crushed Stone Processing and Pulverized Mineral Processing”, 8/04. For those sources not covered in this section, emission factors from MPCA Form EC-10, “Nonmetallic Minerals Products Industry Calculation Form”, 11/98, were used.

The maximum throughput for each individual source was used to calculate the potential to emit.

3.2 Periodic Monitoring

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

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

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

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

Table 4. Periodic Monitoring

Emission Unit or Group	Requirement (basis)	Additional Monitoring	Discussion
Facility	(limit to avoid NSR)	Material Moisture Content	The requirement to keep the moisture content of feed material greater than or equal to 1.5% is needed because the underlying emissions calculations and basis for the permit limits are based on this moisture content level. AP-42 (referenced above) has a set of process emission factors for material with moisture content greater than or equal to 1.5% and another set for material with moisture content less than 1.5%. The testing and/or recordkeeping is required to demonstrate compliance with this permit condition. In Minnesota, most sources of natural feed material are usually over 1.5%. The second alternative compliance demonstration method for this permit condition includes Recycled Asphalt Pavement (RAP). In producing asphalt pavement, there are often specifications for moisture content in excess of 1.5%. In addition, there is the presence of the asphalt cement itself with a binding effect which mitigates dust emissions. Based on the combination of these two considerations, it was concluded to be appropriate to include RAP in alternative 2. In addition, supplemental water application to RAP might have an inadvertent negative environmental effect. This is because it is often fed back into an asphalt plant where it is heated. Excess water requires the combustion of additional fuel with the associated air emissions of the products of combustion. The two compliance demonstration alternatives for this permit condition provide adequate assurance that material moisture content is greater than or equal to 1.5% without being unnecessarily burdensome.
Facility	Dust control (limit to avoid NSR)	Recordkeeping of dust suppression activities	Required non-process dust control measures in order to stay below PSD thresholds.
SV001	Opacity: <u>and PM</u> (Minn. R. 7011.0610)	Recordkeeping: Daily Fuel records, pressure drop, water flow rate	Unit uses natural gas with diesel fuel backup, and is controlled with a wet scrubber. The Permittee can demonstrate that this unit will continue to operate such that emissions are well below the emission limits by operating with the wet

Emission Unit or Group	Requirement (basis)	Additional Monitoring	Discussion
			scrubber in operating order. Pressure drop and water flow rate shall be recorded for every 24 hours in operation.
Facility	Minn. R. 7007.0800, subp. 2	Equipment Labels	The requirement to uniquely label equipment is needed so that compliance determinations can be made. The system of uniquely identifying each piece of equipment will also assist the Permittee in making sure that all the proper notices and initial performance tests are made.
GP001 GP003	Minn. R. 7011.0715	None	Based on the material moisture content and throughput limitations listed above, these sources will not exceed the allowable particulate limit. Therefore, additional monitoring is unnecessary.
GP002	40 CFR § 674(b); Minn. R. 7011.3350,	Pressure drop and water flow rate, once every 24 hours of operation	Greater than or equal to 2.0 inches of water column and less than equal to 4.0 inches of water column. Greater than 20 gallon per minute water flow rate. Corrective action required if pressure drop or water flow rate is out of range.
GP004	Minn. R. 7011.0715	Pressure drop and water flow rate, once every 24 hours of operation	Greater than or equal to 3.5 inches of water column and less than equal to 8.0 inches of water column. Greater than 30 gallon per minute water flow rate. Corrective action required if pressure drop or water flow rate is out of range.

3.3 Insignificant Activities

Unimin Corporation – Kasota Plant has several operations which are classified as insignificant activities. These are listed below:

Source	Requirement (basis)
<u>Natural Gas Heaters</u>	
250,000 BTU/hr (HV-001)	Minn. R. 7007.1300, subp. 3(A) – Fuel use: space heaters fueled by kerosene, natural gas, or propane.
687,500 BTU/hr (HV-002)	Minn. R. 7007.1300, subp.3(A)
312,500 BTU/hr (HV-003)	Minn. R. 7007.1300, subp.3(A)
687,000 BTU/hr (HV-004)	Minn. R. 7007.1300, subp.3(A)
687,000 BTU/hr (HV-005)	Minn. R. 7007.1300, subp.3(A)
687,000 BTU/hr (HV-006)	Minn. R. 7007.1300, subp.3(A)
1,250,000 BTU/hr (HV-007)	Minn. R. 7007.1300, subp.3(A)
1,250,000 BTU/hr (HV-008)	Minn. R. 7007.1300, subp.3(A)
100,000 BTU/hr (Mobile Eq/Parts Warehouse)	Minn. R. 7007.1300, subp.3(A)
110,000 BTU/hr (Maintenance Shop Area)	Minn. R. 7007.1300, subp.3(A)
<u>Tanks</u>	
15,000 gallon diesel storage tank (above ground)	Minn. R. 7007.1300, subp. 3(E)(2) – Storage tanks: above and below ground fuel oil storage tanks with a combined total tankage capacity less than 100,000 gallons.
1,000 gallon unleaded gasoline storage tank (above ground)	Minn. R. 7007.1300, subp. 3(E)(1) – Gasoline storage tanks with a combined total tankage capacity of not more than 10,000 gallons.

3.4 NAAQS Modeling

The facility was informed that they are potentially exceeding the National Ambient Air Quality Standards (NAAQS). They were made aware of this issue in a letter from the MPCA dated June 21, 2005. As a result requirements to perform dispersion modeling for PM₁₀ were placed in the permit. The modeling protocol must be submitted 180 days after permit issuance and completed 365 days after issuance. The facility can not make any changes that would increase PM₁₀ emissions until modeling is completed and the facility is shown to be in compliance with the NAAQS.

3.5 Permit Organization

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

3.6 Comments Received

Public Notice Period: March 10 – April 10, 2006

EPA 45-day Review Period: April 11 – 25, 2006

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

4. Conclusion

Based on the information provided by Unimin Corporation, the MPCA has reasonable assurance that the proposed operation of the emission facility, as described in the Air Emission Permit No. 07900019-001, and this TSD, will not cause or contribute to a violation of applicable federal regulations and Minnesota Rules.

Staff Members on Permit Team: Raymond Ramos, EarthTech, Inc.
 Jeffrey Peltola, MPCA (project manager/peer reviewer)
 Michael Westereng, MPCA (Permit writer/ Public notice)
 Scott Parr, MPCA (enforcement)

Attachments: 1. PTE Summary and Calculation Spreadsheets