

**AIR EMISSION PERMIT NO. 12300288- 002**

**IS ISSUED TO**

**CEMSTONE PRODUCTS COMPANY**

Twin City Concrete Materials  
1351 Trout Brook Circle  
St. Paul, Ramsey County, MN 55117

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

|                                    |                  |
|------------------------------------|------------------|
| Permit Type                        | Application Date |
| Total Facility Operating Permit    | 06/15/1995       |
| Minor Permit Amendment             | 02/13/1995       |
| Minor Permit Amendment             | 4/30/1996        |
| Revised Title V Permit Application | 12/2/2002        |
| Notification                       | 2/17/2006        |
| Administrative Amendment           | 6/5/2006         |

This permit supersedes permit number 12300288-001 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.

**Permit Type:** Federal; Part 70/Limits to Avoid NSR

**Original Issue Date:** May 31, 2005

**Amendment Issue Date:** January 28, 2008

**Expiration:** May 31, 2010

All Title I Conditions do not expire.

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

for Brad Moore  
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.

Notwithstanding the foregoing permit shield protection, the MPCA and U.S. Environmental Protection Agency (EPA) specifically reserve, and the Permittee accepts the permit knowing that the MPCA or EPA may investigate, initiate and pursue enforcement action for continuing violations or violations that occurred prior to or at the time of permit issuance and that may be addressed by conditions in this permit. Enforcement action may include, but is not limited to, further corrective action and penalties.

**FACILITY DESCRIPTION:**

Twin City Concrete Products Co. operates a concrete bagging plant located in St. Paul, Minnesota. The facility produces a variety of bagged concrete mixes, as well as tube sand (bagged sand). The primary emission sources at the facility are the aggregate dryer, the bucket elevator, raw material silos, material storage piles, and various product-packaging lines, which include a number of emission points. The aggregate dryer burns primarily natural gas, with propane as a backup fuel.

**AMENDMENT DESCRIPTION:**

This is an administrative amendment to extend the deadline to 120 days to submit computer dispersion modeling results for PM<sub>10</sub> and incorporates administrative changes from an equipment replacement notification. Specifically, this is a replacement of EU-001 with EU-067. This qualifies for an administrative amendment under Minn. R. 7007.1400, subp. 1(H).

This also incorporates an amendment for a name change under Minn. R. 7007.1400, subp. 1(B).

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

01/28/08

Facility Name: Twin City Concrete Products Co - St Paul

Permit Number: 12300288 - 002

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

**Subject Item:****Total Facility**

| <b>What to do</b>  | <b>Why to do it</b>   |
|--|---|
| <b>SOURCE-SPECIFIC REQUIREMENTS</b>  | hdr   |
| Comply with Fugitive Emission Control Plan: The Permittee shall follow the actions and record keeping 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 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 |
| Preventing Particulate Matter from Becoming Airborne.<br><br>No owner or operator of a concrete manufacturing plant shall 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 from a concrete manufacturing plant.<br><br>No owner or operator of a concrete manufacturing plant shall cause or permit a building or its appurtenances, a road, a driveway, or an open area to be constructed, used, repaired, or demolished without applying all such reasonable measures as may be required to prevent particulate matter from becoming airborne. The owner or operator of a concrete manufacturing plant shall take reasonable precautions to prevent the discharge of visible fugitive dust emissions beyond the lot line of the property on which the emissions originate. | Minn. R. 7011.0857  |
| The Commissioner may require such reasonable measures as may be necessary to prevent particulate matter from becoming airborne including, but not limited to, application of water; application of commercially available dust suppressants; paving; frequent cleaning and sweeping of roads, driveways, and parking lots; use of curtains or socks for truck loading operations; use of water sprays during truck loading operations; use of water or commercially available dust suppressants on stockpiles or aggregate transfer points; and the planting and maintenance of vegetative ground cover.   | Minn. R. 7011.0857 CONTINUED  |
| <b>OPERATIONAL REQUIREMENTS</b>  | hdr   |
| Circumvention: Do not install or use a device or means that conceals or dilutes emissions, which would otherwise violate a federal or state air pollution control rule, without reducing the total amount of pollutant emitted.  | Minn. R. 7011.0020  |
| Air Pollution Control Equipment: Operate all pollution control equipment whenever the corresponding process equipment and emission units are operated, unless otherwise noted in Table A.  | Minn. R. 7007.0800, subp. 2; Minn. R. 7007.0800, subp. 16(J)  |
| Operation and Maintenance Plan: Retain at the stationary source an operation and maintenance plan for all air pollution control equipment. At a minimum, the O & M plan shall identify all air pollution control equipment and shall include a preventative maintenance program for that equipment, a description of (the minimum but not necessarily the only) corrective actions to be taken to restore the equipment 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 the records kept to demonstrate plan implementation.   | Minn. R. 7007.0800, subp. 14 and Minn. R. 7007.0800, subp. 16(J)  |
| Operation Changes: In any shutdown, breakdown, or deviation the Permittee shall immediately take all practical steps to modify operations to reduce the emission of any regulated air pollutant. The Commissioner may require feasible and practical modifications in the operation to reduce emissions of air pollutants. No emissions units that have an unreasonable shutdown or breakdown frequency of process or control equipment shall be permitted to operate.   | Minn. R. 7019.1000, subp. 4   |
| Fugitive Emissions: Do not cause or permit the handling, use, transporting, or storage of any material in a manner which may allow avoidable amounts of particulate matter to become airborne. Comply with all other requirements listed in Minn. R. 7011.0150.  | Minn. R. 7011.0150  |
| Noise: The Permittee shall comply with the noise standards set forth in Minn. R. 7030.0010 to 7030.0080 at all times during the operation of any emission units. This is a state only requirement and is not enforceable by the EPA Administrator or citizens under the Clean Air Act.   | Minn. R. 7011.0858; 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)  |

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

01/28/08

Facility Name: Twin City Concrete Products Co - St Paul

Permit Number: 12300288 - 002

|   |   |
|---|---|
| The Permittee shall comply with the General Conditions listed in Minn. R. 7007.0800, subp. 16.  | Minn. R. 7007.0800, subp. 16  |
| <b>PERFORMANCE TESTING</b>  | hdr   |
| Performance Testing: Conduct all performance tests in accordance with Minn. R. ch. 7017 unless otherwise noted in Tables A, B, and/or C.  | Minn. R. ch. 7017   |
| Performance Test Notifications and Submittals:<br><br>Performance Tests are due as outlined in Tables A and B of the permit. See Table B for additional testing requirements.<br><br>Performance Test Notification (written): due 30 days before each Performance Test<br>Performance Test Plan: due 30 days before each Performance Test<br>Performance Test Pre-test Meeting: due 7 days before each Performance Test<br>Performance Test Report: due 45 days after each Performance Test<br>Performance Test Report - Microfiche Copy: due 105 days after each Performance Test<br><br>The Notification, Test Plan, and Test Report may be submitted in alternative format as allowed by Minn. R. 7017.2018.   | Minn. Rs. 7017.2030, subp. 1-4, 7017.2018 and Minn. R. 7017.2035, subp. 1-2 |
| 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.   | Minn. R. 7017.2025  |
| <b>MONITORING REQUIREMENTS</b>  | hdr   |
| Monitoring Equipment Calibration: Annually calibrate all required monitoring equipment (any requirements applying to continuous emission monitors are listed separately in this permit).  | Minn. R. 7007.0800, subp. 4(D)  |
| Operation of Monitoring Equipment: Unless otherwise noted in Tables A, B, and/or C, monitoring a process or control equipment connected to that process is not necessary during periods when the process is shutdown, or during checks of the monitoring systems, such as calibration checks and zero and span adjustments. If monitoring records are required, they should reflect any such periods of process shutdown or checks of the monitoring system.  | Minn. R. 7007.0800, subp. 4(D)  |
| <b>RECORDKEEPING</b>  | hdr   |
| 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. 7011.0854, subp. 4; Minn. R. 7007.0800, subp. 5(C)                 |
| Recordkeeping: Maintain records describing any insignificant modifications (as required by Minn. R. 7007.1250, subp. 3) or changes contravening permit terms (as required by Minn. R. 7007.1350 subp. 2), including records of the emissions resulting from those changes.  | Minn. R. 7007.0800, subp. 5(B)  |
| <b>REPORTING/SUBMITTALS</b>   | hdr   |
| Shutdown Notifications: Notify the Commissioner at least 24 hours in advance of a planned shutdown of any control equipment or process equipment if the shutdown would cause any increase in the emissions of any regulated air pollutant. If the owner or operator does not have advance knowledge of the shutdown, notification shall be made to the Commissioner as soon as possible after the shutdown. However, notification is not required in the circumstances outlined in Items A, B and C of Minn. R. 7019.1000, subp. 3.<br><br>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. 7011.0859; 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.<br><br>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. 7011.0859; Minn. R. 7019.1000, subp. 2                             |

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

01/28/08

Facility Name: Twin City Concrete Products Co - St Paul

Permit Number: 12300288 - 002

|   |   |
|---|---|
| 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. 7011.0859; 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:<br>1. the cause of the deviation;<br>2. the exact dates of the period of the deviation, if the deviation has been corrected;<br>3. whether or not the deviation has been corrected;<br>4. the anticipated time by which the deviation is expected to be corrected, if not yet corrected; and<br>5. steps taken or planned to reduce, eliminate, and prevent reoccurrence of the deviation. | Minn. R. 7011.0859; 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)                  |
| Emission Inventory Report: due on or before April 1 of each calendar year following permit issuance. The Permittee shall submit this on a form approved by the Commissioner.  | Minn. R. 7019.3000 through Minn. R. 7019.3100   |
| Emission Fees: due 60 days after receipt of an MPCA bill.   | Minn. R. 7002.0005 through Minn. R. 7002.0095   |



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

01/28/08

Facility Name: Twin City Concrete Products Co - St Paul

Permit Number: 12300288 - 002

**Subject Item: GP 001 Fabric Filters - Low Temperature****Associated Items:** CE 002 Fabric Filter - Low Temperature, i.e., T<180 Degrees F

CE 004 Fabric Filter - Low Temperature, i.e., T&lt;180 Degrees F

CE 005 Fabric Filter - Low Temperature, i.e., T&lt;180 Degrees F

CE 006 Fabric Filter - Low Temperature, i.e., T&lt;180 Degrees F

CE 007 Fabric Filter - Low Temperature, i.e., T&lt;180 Degrees F

CE 011 Fabric Filter - Low Temperature, i.e., T&lt;180 Degrees F

CE 015 Fabric Filter - Low Temperature, i.e., T&lt;180 Degrees F

CE 016 Fabric Filter - Low Temperature, i.e., T&lt;180 Degrees F

CE 017 Fabric Filter - Low Temperature, i.e., T&lt;180 Degrees F

CE 018 Fabric Filter - Low Temperature, i.e., T&lt;180 Degrees F

CE 019 Fabric Filter - Low Temperature, i.e., T&lt;180 Degrees F

| What to do  | Why to do it  |
|---|---|
| The Permittee shall operate and maintain the control equipment such that it achieves an overall control efficiency for Total Particulate Matter: greater than or equal to 99 percent control efficiency   | Title I Condition: To avoid classification as a major source and modification under 40 CFR Section 52.21 and Minn. R. 7007.3000; Minn. R. 7011.0065, subp. 1(A)   |
| The Permittee shall operate and maintain the control equipment such that it achieves an overall control efficiency for Particulate Matter < 10 micron: greater than or equal to 99 percent control efficiency   | Title I Condition: To avoid classification as a major source and modification under 40 CFR Section 52.21 and Minn. R. 7007.3000; To avoid classification as a major source under 40 CFR Section 70.2 and Minn. R. 7007.0200; Minn. R. 7011.0065, subp. 1(A) |
| Pressure Drop: greater than or equal to 1.0 inches of water column and less than or equal to 6.0 inches of water column, unless a new range is set pursuant to Minn. R. 7017.2025, subp. 3, based on the values recorded during the most recent MPCA approved performance test where compliance was demonstrated. The new range shall be implemented upon receipt of the Notice of Compliance letter granting preliminary approval. The range is final upon issuance of a permit amendment incorporating the change.  | Title I Condition: To avoid classification as a major source and modification under 40 CFR Section 52.21 and Minn. R. 7007.3000; To avoid classification as a major source under 40 CFR Section 70.2 and Minn. R. 7007.0200; Minn. R. 7011.0080             |
| Visible Emissions: The Permittee shall check each fabric filter stack (SV 002, SV 004-007, 011, 015-019) for any visible emissions once each day of operation during daylight hours. During inclement weather, the Permittee shall read and record the pressure drop across the fabric filter, once each day of operation.  | Title I Condition: To avoid classification as a major source and modification under 40 CFR Section 52.21 and Minn. R. 7007.3000; To avoid classification as a major source under 40 CFR Section 70.2 and Minn. R. 7007.0200; Minn. R. 7011.0080             |
| Recordkeeping of Visible Emissions and Pressure Drop. The Permittee shall record the time and date of each visible emission inspection and pressure drop reading, and whether or not any visible emissions were observed, and whether or not the observed pressure drop was within the range specified in this permit.  | Title I Condition: To avoid classification as a major source and modification under 40 CFR Section 52.21 and Minn. R. 7007.3000; To avoid classification as a major source under 40 CFR Section 70.2 and Minn. R. 7007.0200; Minn. R. 7011.0080             |
| The control equipment is considered listed control equipment under Minn. R. 7011.0060 to 7011.0080. The Permittee shall operate and maintain the fabric filter at all times that any process equipment controlled by the fabric filter is operating. The Permittee shall document periods of non-operation of the control equipment.  | Title I Condition: To avoid classification as a major source and modification under 40 CFR Section 52.21 and Minn. R. 7007.3000; To avoid classification as a major source under 40 CFR Section 70.2 and Minn. R. 7007.0200; Minn. R. 7011.0075, subp. 1    |
| Corrective Actions: The Permittee shall take corrective action as soon as possible if any of the following occur:<br>- visible emissions are observed;<br>- the recorded pressure drop is outside the required operating range; or<br>- the fabric filter or any of its components are found during the inspections to need repair.<br>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 for the fabric filter. The Permittee shall keep a record of the type and date of any corrective action taken for each filter. | Minn. R. 7007.0800, subp. 4, 5, and 14  |
| Monitoring Equipment: The Permittee shall install and maintain the necessary monitoring equipment for measuring and recording pressure drop as required by this permit. The monitoring equipment must be installed, in use, and properly maintained when the monitored fabric filter is in operation.   | Minn. R. 7011.0075, subp. 3   |

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

01/28/08

Facility Name: Twin City Concrete Products Co - St Paul

Permit Number: 12300288 - 002

|  |   |
|--|---|
| The Permittee shall maintain each piece of control equipment according to the manufacturer's specification, shall conduct inspections, and maintain documentation of those actions as required by Minn. R. 7011.0075, subp. 2(A) to 2(I).  | Minn. R. 7011.0075, subp. 2                           |
| Initial Hood Certification and Evaluation: The control device hood shall conform to the requirements listed in Minn. R. 7011.0072, subp. 2, and the Permittee shall certify this as specified in Minn. R. 7011.0072, subps. 2 and 3. The Permittee shall maintain a copy of the evaluation and certification on site.                | Minn. R. 7011.0072, subp. 2 and 3; Minn. R. 7011.0080 |
| Annual Hood Evaluation: The Permittee shall measure and record at least once every 12 months the fan rotation speed, fan power draw, or face velocity of each hood, or other comparable air flow indication method as required by Minn. R. 7011.0072, subp. 4. The Permittee shall maintain a copy of the annual evaluation on site. | Minn. R. 7011.0072, subp. 4                           |

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

01/28/08

Facility Name: Twin City Concrete Products Co - St Paul

Permit Number: 12300288 - 002

**Subject Item: GP 002 Concrete Manufacturing Stacks/Equipment**

**Associated Items:** SV 001 Baghouse 1 stack  
SV 002 Baghouse 2 stack  
SV 004 Baghouse 4 stack  
SV 005 Baghouse 5 stack  
SV 006 Baghouse 6 stack  
SV 007 Baghouse 7 stack  
SV 008 Baghouse 8 stack  
SV 009 Baghouse 9 stack  
SV 010 Baghouse 10 stack  
SV 011 Baghouse 11 stack  
SV 012 Baghouse 12 stack  
SV 013 Baghouse 13 stack  
SV 014 Baghouse 14 stack  
SV 016 Baghouse 16 stack  
SV 017 Baghouse 17 stack  
SV 018 Baghouse 18 stack  
SV 019 Baghouse 19 stack  
SV 020 Baghouse 20 stack

| What to do  | Why to do it                |
|---|-----------------------------|
| Total Particulate Matter: less than or equal to 0.3 grains/dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011. 0735. This limit applies to each emission unit that vent to the stacks listed above as associated items. The PTE for each emission unit based on equipment design and use of control equipment is less than the limit. Appendix C of this permit lists the PTE for each emission unit. | Minn. R. 7011.0852, subp. A |
| Opacity: less than or equal to 20 percent opacity   | Minn. R. 7011.0852, subp. B |

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

01/28/08

Facility Name: Twin City Concrete Products Co - St Paul

Permit Number: 12300288 - 002

**Subject Item: GP 003 Fabric Filters - Low Temperature, Cementitious Material Storage****Associated Items:** CE 001 Fabric Filter - Low Temperature, i.e., T<180 Degrees F

CE 008 Fabric Filter - Low Temperature, i.e., T&lt;180 Degrees F

CE 009 Fabric Filter - Low Temperature, i.e., T&lt;180 Degrees F

CE 010 Fabric Filter - Low Temperature, i.e., T&lt;180 Degrees F

CE 012 Fabric Filter - Low Temperature, i.e., T&lt;180 Degrees F

CE 013 Fabric Filter - Low Temperature, i.e., T&lt;180 Degrees F

CE 014 Fabric Filter - Low Temperature, i.e., T&lt;180 Degrees F

CE 020 Fabric Filter - Low Temperature, i.e., T&lt;180 Degrees F

| What to do  | Why to do it  |
|---|---|
| The Permittee shall operate and maintain the control equipment such that it achieves an overall control efficiency for Total Particulate Matter: greater than or equal to 99 percent control efficiency   | Title I Condition: To avoid classification as a major source and modification under 40 CFR Section 52.21 and Minn. R. 7007.3000; Minn. R. 7011.0065, subp. 1(A)   |
| The Permittee shall operate and maintain the control equipment such that it achieves an overall control efficiency for Particulate Matter < 10 micron: greater than or equal to 99 percent control efficiency   | Title I Condition: To avoid classification as a major source and modification under 40 CFR Section 52.21 and Minn. R. 7007.3000; To avoid classification as a major source under 40 CFR Section 70.2 and Minn. R. 7007.0200; Minn. R. 7011.0065, subp. 1(A)         |
| Pressure Drop: greater than or equal to 1.0 inches of water column and less than or equal to 6.0 inches of water column, unless a new range is set pursuant to Minn. R. 7017.2025, subp. 3, based on the values recorded during the most recent MPCA approved performance test where compliance was demonstrated.   | Title I Condition: To avoid classification as a major source and modification under 40 CFR Section 52.21 and Minn. R. 7007.3000; To avoid classification as a major source under 40 CFR Section 70.2 and Minn. R. 7007.0200; Minn. R. 7011.0080                     |
| Visible Emissions: The Permittee shall check each fabric filter stack (SV 001, 008-010, 012-014, 020) for any visible emissions once each day of operation during daylight hours. During inclement weather, the Permittee shall read and record the pressure drop across the fabric filter, once each day of operation. During cementitious material receiving, the owner or operator of a concrete manufacturing plant, or a designee, shall observe the outlet of each piece of control equipment for any visible emissions once each day cementitious material is received.  | Title I Condition: To avoid classification as a major source and modification under 40 CFR Section 52.21 and Minn. R. 7007.3000; To avoid classification as a major source under 40 CFR Section 70.2 and Minn. R. 7007.0200; Minn. R. 7011.0080; 7011.0854, subp. 3 |
| Recordkeeping of Visible Emissions and Pressure Drop. The Permittee shall record the time and date of each visible emission inspection and pressure drop reading, and whether or not any visible emissions were observed, and whether or not the observed pressure drop was within the range specified in this permit.  | Title I Condition: To avoid classification as a major source and modification under 40 CFR Section 52.21 and Minn. R. 7007.3000; To avoid classification as a major source under 40 CFR Section 70.2 and Minn. R. 7007.0200; Minn. R. 7011.0080; 7011.0854, subp. 3 |
| The control equipment is considered listed control equipment under Minn. R. 7011.0060 to 7011.0080. The Permittee shall operate and maintain the fabric filter at all times that any process equipment controlled by the fabric filter is operating.  | Title I Condition: To avoid classification as a major source and modification under 40 CFR Section 52.21 and Minn. R. 7007.3000; To avoid classification as a major source under 40 CFR Section 70.2 and Minn. R. 7007.0200; Minn. R. 7011.0075, subp. 1            |
| Corrective Actions: The Permittee shall take corrective action as soon as possible if any of the following occur:<br>- visible emissions are observed;<br>- the recorded pressure drop is outside the required operating range; or<br>- the fabric filter or any of its components are found during the inspections to need repair.<br>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 for the fabric filter. The Permittee shall keep a record of the type and date of any corrective action taken for each filter. | Minn. R. 7007.0800, subp. 4, 5, and 14; Minn. R. 7011.0854, subp. 3   |
| Monitoring Equipment: The Permittee shall install and maintain the necessary monitoring equipment for measuring and recording pressure drop as required by this permit. The monitoring equipment must be installed, in use, and properly maintained when the monitored fabric filter is in operation.   | Minn. R. 7011.0075, subp. 3   |
| The Permittee shall maintain each piece of control equipment according to the manufacturer's specification, shall conduct inspections, and maintain documentation of those actions as required by Minn. R. 7011.0075, subp. 2(A) to 2(I).   | Minn. R. 7011.0075, subp. 2   |

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

01/28/08

Facility Name: Twin City Concrete Products Co - St Paul

Permit Number: 12300288 - 002

|  |   |
|--|---|
| Initial Hood Certification and Evaluation: The control device hood shall conform to the requirements listed in Minn. R. 7011.0072, subp. 2, and the Permittee shall certify this as specified in Minn. R. 7011.0072, subps. 2 and 3. The Permittee shall maintain a copy of the evaluation and certification on site.  | Minn. R. 7011.0072, subp. 2 and 3; Minn. R. 7011.0080 |
| Operation of concrete manufacturing plant control equipment: Unless otherwise allowed in a state or part 70 permit, emissions during cementitious material receiving from cement silos and other cementitious material storage devices shall pass through a fabric filter. For concrete manufacturing plants in operation on December 2, 1998, the owner or operator must install control equipment no later than December 2, 1999.  | Minn. R. 7011.0854, subp. 1                           |
| Operation and maintenance of fabric filter control equipment: The owner or operator of a concrete manufacturing plant shall perform the following on each piece of control equipment required in subp. 1:<br><br>A. properly operate and maintain the control equipment to function as it was designed. Proper operation and maintenance includes effective performance, adequate funding, and adequate operator staffing and training;<br><br>B. thoroughly conduct an internal and external inspection of control equipment at least annually, which often requires shutting down temporarily, and maintain a record of the activities conducted in the inspection including the activities completed, the date the activity was completed, and any corrective action taken; and<br><br>C. maintain a record of parts replaced, repaired, or modified. | Minn. R. 7011.0854, subp. 2                           |
| Monitoring of fabric filter control equipment: During cementitious material receiving, the owner or operator of a concrete manufacturing plant, or a designee, shall observe the outlet of each piece of control equipment required in subp. 1 for any visible emissions once each day cementitious material is received, and record the date and time period during which the observation was made and whether or not any visible emissions were observed. If visible emissions are observed, the owner or operator, or a designee, shall take all practical steps to modify operations to reduce the emissions and shall take corrective action to eliminate visible emissions prior to the following business day. The Commissioner may require feasible and practical modifications in the operation to reduce emissions of air pollutants.          | Minn. R. 7011.0854, subp. 3                           |

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

01/28/08

Facility Name: Twin City Concrete Products Co - St Paul

Permit Number: 12300288 - 002

**Subject Item:** EU 067 Fluid Bed Dryer/Cooler Area**Associated Items:** CE 015 Fabric Filter - Low Temperature, i.e., T<180 Degrees F

SV 015 Baghouse 15 stack

| 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. 7011.0610, subp. 1(A)(1)   |
| Opacity: less than or equal to 20 percent opacity except for one six-minute period per hour of not more than 60 percent opacity.  | Minn. R. 7011.0610, subp. 1(A)(2)   |
| Operate and maintain the fabric filter such that it achieves a removal efficiency for Total Particulate Matter: greater than or equal to 99.97 percent control efficiency   | Title I Condition: Limit to avoid major source status per 40 CFR Section 52.21(j); Minn. R. 7007.3000 |
| Operate and maintain the fabric filter such that it achieves a removal efficiency for Particulate Matter < 10 micron: greater than or equal to 99.97 percent control efficiency   | Title I Condition: Limit to avoid major source status per 40 CFR Section 52.21(j); Minn. R. 7007.3000 |

## TABLE B: SUBMITTALS

B-1 01/28/08

Facility Name: Twin City Concrete Products Co - St Paul  
Permit Number: 12300288 - 002

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.

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

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

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

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

Send any application for a permit or permit amendment to:

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

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

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

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

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

TABLE B: ONE TIME SUBMITTALS OR NOTIFICATIONS

Facility Name: Twin City Concrete Products Co - St Paul  
Permit Number: 12300288 - 002

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



**TABLE B: RECURRENT SUBMITTALS****B-3** 01/28/08

Facility Name: Twin City Concrete Products Co - St Paul

Permit Number: 12300288 - 002

| What to send                 | When to send   | Portion of Facility Affected |
|------------------------------|--|------------------------------|
| Semiannual Deviations Report | due 30 days after end of each calendar half-year starting 05/31/2005 . 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 starting 05/31/2005 (for the previous calendar year). To be submitted on a form approved by the Commissioner, both to the Commissioner and to the US EPA regional office in Chicago. This report covers all deviations experienced during the calendar year.   | Total Facility               |

## APPENDIX B

### Insignificant Activities and Applicable Requirements

Facility Name: Twin City Concrete Products Co. – St. Paul

Permit Number: 12300288-002

Under Minn. R. 7007.1250, subp. 1(A), the Permittee may add insignificant activities to the stationary source throughout the term of the permit without getting permit amendments. Certain exclusions apply and are listed in Minn. R. 7007.1250, subp. 2.

The following sources at the Permittee's facility qualify as insignificant activities under Minn. R. 7007.1300, subps. 2, 3 and 4 and are not required to be listed in the permit.

| Location        | Model                  | Size (Btu/hr) | Rule                  |
|-----------------|------------------------|---------------|-----------------------|
| Production Area | Space Ray RSTP 17-N-5B | 175,000       | 7007.1300, Subp. 3(A) |
| Big Bags        | Robert Gordon CTH2-80  | 80,000        | 7007.1300, Subp. 3(A) |
| Big Bags        | Robert Gordon CTH2-125 | 125,000       | 7007.1300, Subp. 3(A) |
| Building 4      | Gordon Ray RTH 75 A    | 75,000        | 7007.1300, Subp. 3(A) |
| Building 4      | Gordon Ray RTH 75 A    | 75,000        | 7007.1300, Subp. 3(A) |
| Office          | Carrier 48TJE005-611   | 115,000       | 7007.1300, Subp. 3(I) |
| Lunchroom       | Carrier 48TJE005-611   | 115,000       | 7007.1300, Subp. 3(I) |
| Production Area | Reznor P250            | 250,000       | 7007.1300, Subp. 3(I) |
| Control Room    | HQCO NHGG100AH03       | 100,000       | 7007.1300, Subp. 3(I) |
| Building 4      | Modine PAE175AC        | 175,000       | 7007.1300, Subp. 3(I) |

## APPENDIX C

### GP002 PTE and Allowable Limits

Facility Name: Twin City Concrete Products Co. – St. Paul  
Permit Number: 12300288-002

| Emission Unit | PTE (lb/hr) | Minn. R. 7011.0715 Limit (lb/hr) |
|---------------|-------------|----------------------------------|
| 002           | 0.25        | 34.54                            |
| 003           | 1.00        | 38.12                            |
| 004           | 0.25        | 34.54                            |
| 005           | 0.25        | 34.54                            |
| 006           | 0.25        | 34.54                            |
| 007           | 21.60       | 29.57                            |
| 008           | 21.60       | 29.57                            |
| 009           | 21.60       | 29.57                            |
| 010           | 21.60       | 29.57                            |
| 011           | 21.60       | 29.57                            |
| 012           | 21.60       | 29.57                            |
| 013           | 0.20        | 38.12                            |
| 014           | 8.58        | 38.12                            |
| 015           | 0.20        | 38.12                            |
| 016           | 0.20        | 38.12                            |
| 017           | 23.79       | 38.12                            |
| 018           | 23.79       | 31.11                            |
| 019           | 0.25        | 38.12                            |
| 020           | 0.25        | 38.12                            |
| 021           | 0.25        | 38.12                            |
| 022           | 28.08       | 31.11                            |
| 023           | 28.08       | 31.11                            |
| 024           | 28.08       | 31.11                            |
| 025           | 28.08       | 31.11                            |
| 028           | 0.06        | 39.68                            |
| 029           | 0.06        | 39.68                            |
| 030           | 0.06        | 39.68                            |
| 031           | 0.06        | 39.68                            |
| 032           | 0.25        | 32.22                            |
| 033           | 0.16        | 32.22                            |
| 034           | 0.25        | 39.68                            |
| 035           | 0.25        | 39.68                            |
| 036           | 0.16        | 39.68                            |
| 037           | 0.16        | 39.68                            |
| 038           | 0.29        | 39.68                            |
| 039           | 0.29        | 33.00                            |
| 040           | 0.00        | 39.68                            |
| 041           | 0.14        | 27.70                            |
| 042           | 0.14        | 39.68                            |
| 043           | 0.14        | 39.68                            |
| 044           | 0.09        | 39.68                            |
| 045           | 0.09        | 39.68                            |
| 052           | 0.11        | 23.71                            |

| <b>Emission Unit</b> | <b>PTE (lb/hr)</b> | <b>Minn. R. 7011.0715 Limit (lb/hr)</b> |
|----------------------|--------------------|---|
| 053                  | 0.11               | 23.71                                   |
| 054                  | 0.00               | 39.68                                   |
| 055                  | 0.06               | 32.35                                   |
| 056                  | 0.06               | 32.35                                   |
| 057                  | 0.03               | 32.35                                   |
| 058                  | 0.00               | 32.35                                   |
| 059                  | 0.03               | 32.35                                   |
| 060                  | 0.03               | 32.35                                   |
| 061                  | 7.20               | 32.35                                   |
| 062                  | 28.08              | 31.11                                   |
| 063                  | 28.08              | 31.11                                   |
| 064                  | 7.04               | 39.68                                   |
| 065                  | 0.02               | 39.68                                   |
| 066                  | 0.14               | 39.68                                   |

#### Appendix D – Fugitive Dust Emission Control Plan



Acrobat Document



**TECHNICAL SUPPORT DOCUMENT**  
**For**  
**AIR EMISSION PERMIT NO. 12300288-002**

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 preliminary determination to issue the draft permit.

**1. General Information**

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

| Applicant/Address   | Stationary Source/Address<br>(SIC Code: 3273)                   |
|---|---|
| Twin City Concrete Products Co.<br>2025 Centre Point Boulevard, #300<br>Mendota Heights, MN 55120 | 1351 Trout Brook Circle<br>St. Paul, Minnesota<br>Ramsey County |
| Contact: Tim Becken<br>Phone: (651) 688-9292  |   |

**1.2. Description of the Permit Action**

Twin City Concrete Products Co. operates a concrete bagging plant located in St. Paul, Minnesota. The facility produces a variety of bagged concrete mixes, as well as tube sand (bagged sand). The primary emission sources at the facility are the aggregate dryer, the bucket elevator, raw material silos, material storage piles, and various product-packaging lines, which include a number of emission points. The aggregate dryer burns primarily natural gas, with propane as a backup fuel.

The purpose of this permit action is to revise the permit by removing completed actions, removed Unit 1 and replaced it with Unit 67, facility name and company owner name change, and updated citations to reflect current MPCA protocol.

**Removed Completed Actions (Administrative Amendment received June 5, 2006):**

- Dispersion Modeling Protocol
- Computer Dispersion Modeling Results
- Fugitive Emissions Control Plan
- Performance Test to measure Total Particulate Matter and Particulate Matter < 10 micron emissions.

The testing that was required under Table C – Compliance Schedule has been completed. Therefore, there is no longer a Table C included with the permit.

Replaced Unit 1 with Unit 67 (Notification of Replacement of a Unit received February 17, 2006):

Notification of Replacement of a Unit received on February 17, 2006 to replace fluid bed dryer/cooler area of EU001 with a fluid bed dryer/cooler area with the same capacity; includes installation of a baghouse that will not be used to control air emissions but is used with a new cooler fan to recycle air to the existing dryer combustion chamber.

Facility and Owner Name Change (Administrative Amendment received December 6, 2007):  
Changed from Twin City Concrete Products Co. to Twin City Concrete Materials.

Fugitive Dust Emissions Control Plan is included in the permit as Appendix D.

## **2. Conclusion**

Based on the information provided by Twin City Concrete Products Co., the MPCA has reasonable assurance that the proposed operation of the emission facility, as described in the Air Emission Permit No. 12300288-002, and this TSD, will not cause or contribute to a violation of applicable federal regulations and Minnesota Rules.

Staff Members on Permit Team:      Marilyn Wegwart, MPCA  
   Paula Connell, P.E., Peer Review, MPCA