

**AIR EMISSION PERMIT NO. 01500007- 003**

**IS ISSUED TO**

**Ochs Brick & Tile Company**

Ochs Brick Company  
Highway 14 East  
Springfield, Brown County, MN 56087-0106

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	Issue Date	Action Number
Total Facility Operating Permit	04/17/1995	08/07/2000	001
Major Amendment	08/28/2000	01/17/2001	002
Major Amendment	MPCA Re-opening	see below	003

This permit authorizes the permittee to operate the stationary source at the address listed above unless otherwise noted in Table A. The permittee must comply with all the conditions of the permit. Any changes or modifications to the stationary source must be performed in compliance with Minn. R. 7007.1150 to 7007.1500. Terms used in the permit are 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 New Source Review

**Issue Date:** May 6, 2003

**Expiration:** August 7, 2005  
All Title I Conditions do not expire.

---

Ann M. Foss  
Major Facilities Section Manager  
Majors And Remediation Division

for Sheryl Corrgian  
Commissioner  
Minnesota Pollution Control Agency

## **TABLE OF CONTENTS**

**Notice to the Permittee**

**Permit Shield**

**Facility Description**

**Table A: Limits and Other Requirements**

**Table B: Submittals**

**Table C: Compliance Schedule – not used in this permit**

**Appendix: Insignificant Activities List**

**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:**

The facility manufactures bricks from clay mined off site. Clay is milled and screened to create a consistent material. Water is added as necessary to create the correct consistency for extruding and forming the brick. Brick material is extruded and chopped to the correct size. Bricks are then stacked and proceed through a heating and drying chamber prior to the firing kiln. Fired bricks are then stacked on pallets for storage and shipment.

The primary source of air pollution is the firing kiln. Emissions are combustion products of natural gas or distillate oil, and gaseous emissions driven off as the clay is fired (sulfur dioxide, hydrogen fluoride, and hydrogen chloride). The facility has accepted limits on the annual quantity of bricks produced, the sulfur content of the clay used, and the sulfur content of the distillate oil combusted, to maintain the potential emissions of sulfur dioxide below 250 tons per year.

### **ACTION 002**

This permitting action allowed installation of a 36 mmBtu kiln/dryer. The combined capacity of the kiln/dryer was 8.28 tons per hour of dried brick. The installation required construction of a new building attached to the existing kiln/dryer building.

### **ACTION 003**

This permitting action is a non-mandatory re-opening of the permit by the MPCA to change the Title V modeling requirements to reflect the current MPCA policy dated August 10, 2001. This permit changes the requirements from submittal of a protocol and modeling results, to the submittal of computer dispersion modeling information only.

**TABLE A: LIMITS AND OTHER REQUIREMENTS**

05/06/03

Facility Name: Ochs Brick Co  
 Permit Number: 01500007 - 003

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

**Subject Item: Total Facility**

What to do	Why to do it
FACILITY-SPECIFIC REQUIREMENTS	hdr
Brick Production Recordkeeping: by the 15th day of every month, record the quantity of bricks produced during the previous month, then calculate and record the new 12-month rolling sum of bricks produced.	Title I Condition: Recordkeeping to avoid classification as a major source under 40 CFR Section 52.21 and Minn. R. 7007.3000
Computer Dispersion Modeling Information: due 1,096 days after 08/07/2000 as described in Table B. Submit modeling data as specified in MPCA guidance for Modeling Information Requests for SO2. This modeling information is for data collection purposes, no modeling analysis is required at this time. This is a state only requirement and is not enforceable by the EPA Administrator or citizens under the Clean Air Act.	Minn. R. 7007.0800, subp. 2
A. PRIMARY OPERATING LIMITS	hdr
Sulfur Content for Each Clay Type: less than or equal to 0.065 percent by weight corrected to zero percent moisture content.  This value is calculated by subtracting the lowest sulfur content retained in the fired clay from the highest, unfired clay's sulfur content. For multiple test runs of a clay, the highest value shall be used for the clay, prior to firing, and the lowest value shall be used for the sulfur content retained in that fired clay.	Title I Condition: To avoid major source classification under 40 CFR Section 52.21; Minn. R. 7007.3000; and to avoid EAW review under Minn. R. 4410
Sample Analysis: due 180 days after 01/17/2001 1) Test the sulfur content of each red clay type on-site. 2) Test the sulfur content of each buff clay type on-site. 3) Test the sulfur content of the worst case product mixture.  Maintain records of the results of this analysis on-site.	Title I Condition: To avoid major source classification under 40 CFR Section 52.21; Minn. R. 7007.3000; to avoid EAW review under Minn. R. 4410
Primary Sulfur Content Analysis:  1) Test the sulfur content of each shipment of red clay received. A shipment is defined as the refurbishment of the on-site stockpile for a single mining event. This includes tests of both the fired as well as unfired clay.  2) Test the sulfur content of each buff clay received annually.  3) Test the sulfur content of each shipment any other type of clay received. A shipment is defined as the refurbishment of the on-site stockpile for a single mining event.  4) Test the sulfur content for the worst case clay product mixture annually.  Maintain records of the results of this analysis on-site.	Title I Condition: To avoid major source classification under 40 CFR Section 52.21 ; Minn. R. 7007.3000; and to avoid EAW review under Minn. R. 4410
Brick Production: less than or equal to 145,000 tons/year using 12-month Rolling Sum	Title I Condition: To avoid classification as a major source under 40 CFR Section 52.21 and Minn. R. 7007.3000
Fuel Usage: less than or equal to 240,000 gallons/year of fuel oil	Title I Condition: To avoid major source classification under 40 CFR Section 52.21
Fuel Usage Recordkeeping: by the 15th day of the month:  Record the total fuel oil usage during the previous month and previous 12-month rolling sum period.	Title I Condition: To avoid major source classification under 40 CFR 52.21; Minn. R. 7007.0800, subp. 5
B. ALTERNATE OPERATING LIMIT (applies only in the event that sulfur content of clay exceeds the above 0.065% by weight sulfur content limit)	hdr

**TABLE A: LIMITS AND OTHER REQUIREMENTS**

05/06/03

Facility Name: Ochs Brick Co  
 Permit Number: 01500007 - 003

<p>Sulfur Dioxide: less than or equal to 249 tons/year using 12-month Rolling Sum , calculated as described below. For the 1st 11 months of the rolling sum, the following limits apply:                  Month 1: 63 tons                  Months 1-2: 80 tons                  Months 1-3: 97 tons                  Months 1-4: 114 tons                  Months 1-5: 131 tons                  Months 1-6: 148 tons                  Months 1-7: 165 tons                  Months 1-8: 182 tons                  Months 1-9: 199 tons                  Months 1-10: 216 tons                  Months 1-11: 233 tons</p>	<p>Title I Condition: To avoid major source classification under 40 CFR Section 52.21 and Minn. R. 7007.3000</p>
<p>Alternate Limit, continued</p> <p>Each month, test the sulfur content of each clay type being processed, maintain records of this analysis on site, and use the information to calculate the monthly SO2 emissions.</p> <p>When the sulfur content has been below 0.065% for 12 consecutive months, the Permittee may return to the primary testing requirements (when the sulfur content has been below 0.065% for 12 consecutive months, the "alternate limit" and associated calculations and recordkeeping no longer apply).</p>	<p>Title I Condition: To avoid major source classification under 40 CFR Section 52.21 and Minn. R. 7007.3000</p>
<p>Alternate Limit, continued</p> <p>By the 15th day of every month, calculate and record the SO2 emissions from the previous month using the following equation:</p> <p>SO2 =</p> $\sum_{i=1}^n [Bi \times S(Bi) \times 2] + [G \times S(G) \times 0.000071]$ <p>where:                  SO2 = the sulfur dioxide emissions for the previous month                  Bi = the tons of individual clay type (i) fired during the previous month                  n = number of types of clays used for the previous month                  S(Bi) = the current percent sulfur content for the type of clay (most recent measurement). If the sulfur content is 0.09%, S(Bi) = 0.0009.                  2 = conversion factor (2 tons of SO2 per ton of sulfur)                  G = gallons of fuel oil used in both kilns during the previous month                  S(G) = 100 x the percent sulfur content of the fuel (from fuel certification, see requirements under EU004 and EU007). If the sulfur content is 0.3%, S(G) = 0.3.                  0.000071 = emission factor in units of tons/gallon of fuel oil</p>	<p>Title I Condition: To avoid major source classification under 40 CFR Section 52.21 and Minn. R. 7007.3000</p>
<p>GENERAL REQUIREMENTS</p>	<p>hdr</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>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>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.                  Do not cause or permit a building or its appurtenances or a road, or 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. Take reasonable precautions to prevent the discharge of visible fugitive dust emissions beyond the lot line of the property on which the emissions originate. The Commissioner may require such reasonable measures as may be necessary to prevent particulate matter from becoming airborne, including but not limited to, paving or frequent clearing of roads, driveways, and parking lots; application of dust-free surfaces; application of water; and the planting and maintenance of vegetative ground cover.</p>	<p>Minn. R. 7011.0150</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>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**

05/06/03

Facility Name: Ochs Brick Co  
 Permit Number: 01500007 - 003

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)
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
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
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
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)
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)
Emissions Inventory Report: due April 1 of each year. To be submitted on a form approved by the Commissioner.	Minn. R. 7019.3000 through Minn. R. 7019.3010
Emission Fees: due 60 days after receipt of an MPCA bill.	Minn. R. 7002.0005 through Minn. R. 7002.0095
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**

05/06/03

Facility Name: Ochs Brick Co

Permit Number: 01500007 - 003

**Subject Item:** GP 001 Grinding and Screening equipment**Associated Items:** EU 001 Hammermill

EU 002 Screener

What to do	Why to do it
Total Particulate Matter: less than or equal to 36.17 lbs/hour or the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735 under actual operating conditions, never to exceed 0.3 grains per dry standard cubic foot of exhaust gas. This limit applies to each unit individually. The potential to emit of EU001 and EU002 is 2.5 lb/hour.	Minn. R. 7011.0715, subp. 1(A)
Opacity: less than or equal to 20 percent opacity (Applies to each unit individually)	Minn. R. 7011.0715, subp. 1(B)

**TABLE A: LIMITS AND OTHER REQUIREMENTS**

05/06/03

Facility Name: Ochs Brick Co

Permit Number: 01500007 - 003

**Subject Item:** EU 003 Tunnel Kiln (Dryer Portion)**Associated Items:** SV 002 Tunnel Kiln (dryer portion) exhaust

<b>What to do</b>	<b>Why to do it</b>
Total Particulate Matter: less than or equal to 19.56 lbs/hour or the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735 under actual operating conditions, never to exceed 0.3 grains per dry standard cubic foot of exhaust gas. The potential to emit of EU003 is 1.55 lb/hour.	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**

05/06/03

Facility Name: Ochs Brick Co  
 Permit Number: 01500007 - 003

**Subject Item:** EU 004 Tunnel Kiln (Kiln Portion)

**Associated Items:** SV 003 Tunnel Kiln (kiln portion) exhaust

What to do	Why to do it
EMISSION LIMITS	hdr
Total Particulate Matter: less than or equal to 13.31 lbs/hour or the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735 under actual operating conditions, never to exceed 0.3 grains per dry standard cubic foot of exhaust gas.  The potential to emit of EU004 is 8.74 lb/hour.	Minn. R. 7011.0715, subp. 1(A)
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)
OPERATING REQUIREMENTS	hdr
Fuel: Limited to natural gas and fuel oil only.	Minn. Stat. 116.07, subd. 4a; Minn. R. 7007.0800, subp. 2
Sulfur Content of Fuel: less than or equal to 0.5 percent by weight (fuel oil)	Title I Condition: To avoid major source classification under 40 CFR Section 52.21
Recordkeeping: The Permittee shall maintain records of vendor certifications for each fuel oil purchase. Certification shall include the name of the oil supplier and a statement of the sulfur content of the shipment, by weight.	Title I Condition: Recordkeeping to avoid major source classification under 40 CFR Section 52.21
TESTING REQUIREMENTS	hdr
Performance Test: due 365 days after 01/17/2001 to measure opacity	Minn. R. 7017.2020, subp. 1
Performance Test Notifications and Submittals:  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	Minn. R. 7017.2030, subp. 1-4 and Minn. R. 7017.2035, subp. 1-2

**TABLE A: LIMITS AND OTHER REQUIREMENTS**

05/06/03

Facility Name: Ochs Brick Co

Permit Number: 01500007 - 003

**Subject Item: EU 005 Monorail - Packaging Equipment****Associated Items: SV 004 Monorail exhaust point**

<b>What to do</b>	<b>Why to do it</b>
Total Particulate Matter: less than or equal to 24.80 lbs/hour or the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735 under actual operating conditions, never to exceed 0.3 grains per dry standard cubic foot of exhaust gas. The potential to emit of EU005 is 1.66 lb/hour.	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**

05/06/03

Facility Name: Ochs Brick Co  
 Permit Number: 01500007 - 003

What to do	Why to do it
EMISSION LIMITS	hdr
Total Particulate Matter: less than 0.057 grams/dry standard cubic meter	40 CFR Section 60.732; also meets the requirements of Minn. R. 7011.0715, subp. 1(A)
Opacity: less than or equal to 10 percent opacity	40 CFR Section 60.732; also meets the requirements of Minn. R. 7011.0715, subp. 1(B)
RECORDING REQUIREMENTS	hdr
Recordkeeping of daily monitoring: the Permittee shall keep a daily record, whenever in operation, that contains, at a minimum, the following information:  1) Printed name of observer; 2) Signature of observer; 3) Date and time of observation; 4) Are there any visible emissions observed from the stack? ("yes" or "no"); 5) Description of investigation and corrective actions completed for each "yes"; 6) Weather conditions (temperature, cloud cover, wind, precipitation, etc.)	Minn. R. 7007.0800, subp. 5
Recordkeeping of corrective actions: The Permittee shall take corrective actions, within 24 hours, to eliminate any visible emissions.  The Permittee shall keep a record, on-site, of the corrective actions taken.	Minn. R. 7007.0800, subp. 5
TESTING REQUIREMENTS	hdr
Initial Performance Test: due 180 days after Initial Startup to measure total particulate matter emissions and opacity	40 CFR Section 60.732; Minn. R. 7017.2020, subp. 1
Performance Test Notifications and Submittals:  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	Minn. R. 7017.2030, subp. 1-4 and Minn. R. 7017.2035, subp. 1-2

**TABLE A: LIMITS AND OTHER REQUIREMENTS**

05/06/03

Facility Name: Ochs Brick Co  
 Permit Number: 01500007 - 003

What to do	Why to do it
EMISSION LIMITS	hdr
Total Particulate Matter: less than or equal to 0.30 grains/dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735.  The potential to emit of EU007 is 8.79 lb/hour.	Minn. R. 7011.0715, subp. 1(A)
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)
OPERATING REQUIREMENTS	hdr
Fuel: Limited to natural gas and fuel oil only.	Minn. Stat. 116.07, subd. 4a; Minn. R. 7007.0800, subp. 2
Sulfur Content of Fuel: less than or equal to 0.5 percent by weight (fuel oil)	Title I Condition: To avoid major source classification under 40 CFR Section 52.21
RECORDKEEPING	hdr
Recordkeeping: The Permittee shall maintain records of vendor certifications for each fuel oil purchase. Certification shall include the name of the oil supplier and a statement of the sulfur content of the shipment, by weight.	Title I Condition: Recordkeeping to avoid major source classification under 40 CFR Section 52.21
B. ALTERNATE OPERATING LIMIT (applies only in the event that sulfur content of clay exceeds the above FC 0.065% by weight sulfur content limit)	hdr
Sulfur Dioxide: less than or equal to 99 tons/year using 12-month Rolling Sum , calculated as described below. For the first 11 months of the rolling sum, the following limits apply: Month 1: 10 tons Months 1-2: 20 tons Months 1-3: 30 tons Months 1-4: 40 tons Months 1-5: 50 tons Months 1-6: 60 tons Months 1-7: 70 tons Months 1-8: 80 tons Months 1-9: 85 tons Months 1-10: 90 tons Months 1-11: 95 tons	To avoid EAW Review under Minn. R. 4410
Alternate Limit, continued  Each month, test the sulfur content of each clay type being processed, maintain records of this analysis on site, and use the information to calculate the monthly SO2 emissions.  When the sulfur content has been below 0.065% for 12 consecutive months, the Permittee may return to the primary testing requirements (when the sulfur content has been below 0.065% for 12 consecutive months, the "alternate limit" and associated calculations and recordkeeping no longer apply).	To avoid EAW Review under Minn. R. 4410
Alternate Limit, continued  By the 15th day of every month, calculate and record the EU007 SO2 emissions from the previous month using the following equation:  $SO_2 = \sum_{i=1}^n [B_i \times S(B_i) \times 2] + [G \times S(G) \times 0.000071]$ where: SO2 = the sulfur dioxide emissions for the previous month Bi = the tons of individual clay type (i) fired during the previous month n = number of types of clays used for the previous month S(Bi) = the current percent sulfur content for the type of clay (most recent measurement). If the sulfur content is 0.09%, S(Bi) = 0.0009. 2 = conversion factor (2 tons of SO2 per ton of sulfur) G = gallons of fuel oil used in the kiln during the previous month S(G) = 100 x the percent sulfur content of the fuel (from fuel certification, see requirements under EU007). If the sulfur content is 0.3%, S(G) = 0.3. 0.000071 = emission factor in units of tons/gallon of fuel oil	To avoid EAW Review under Minn. R. 4410

**TABLE A: LIMITS AND OTHER REQUIREMENTS**

05/06/03

Facility Name: Ochs Brick Co  
Permit Number: 01500007 - 003

<p>Alternate Limit, continued</p> <p>Calculate the 12-month rolling sum of the sulfur dioxide emissions by summing the most monthly emission and adding it to the emission quantity for the previous 11 operating months.</p>	<p>To avoid EAW Review under Minn. R. 4410</p>
---	--

**TABLE B: SUBMITTALS**

05/06/03

Facility Name: Ochs Brick Co  
Permit Number: 01500007 - 003

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:

Permit Technical Advisor  
Permit Section  
Air Quality 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:

Supervisor  
Compliance Determination Unit  
Air Quality 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**

05/06/03

Facility Name: Ochs Brick Co  
 Permit Number: 01500007 - 003

What to send	When to send	Portion of Facility Affected
Application for Permit Reissuance	due 180 days before expiration of Existing Permit	Total Facility
Computer Dispersion Modeling Information	due 1,096 days after 08/07/2000. Submit modeling data as specified in MPCA guidance for Modeling Information Requests for SO2. This modeling information is for data collection purposes, no modeling analysis is required at this time. This is a state only requirement and is not enforceable by the EPA Administrator or citizens under the Clean Air Act.	Total Facility
Notification of the Actual Date of Initial Startup	due 15 days after Initial Startup	EU006
Notification of the Date Construction Began	due 30 days after Start Of Construction	EU006
Testing Frequency Plan	due 60 days after Initial Performance Test for opacity emissions. The plan shall specify a testing frequency based on the test data and MPCA guidance. Future performance tests based on one-year (12 month), 36 month, and 60 month intervals, or as applicable, shall be required upon written approval of the MPCA.	EU004
Testing Frequency Plan	due 60 days after Initial Performance Test for total particulate matter emissions. The plan shall specify a testing frequency based on the test data and MPCA guidance. Future performance tests based on one-year (12 month), 36 month, and 60 month intervals, or as applicable, shall be required upon written approval of the MPCA.	EU006

**TABLE B: RECURRENT SUBMITTALS**

05/06/03

Facility Name: Ochs Brick Co  
Permit Number: 01500007 - 003

<b>What to send</b>	<b>When to send</b>	<b>Portion of Facility Affected</b>
Deviations Report	due 30 days after end of each calendar half-year starting 08/07/2000 . The first semiannual report submitted by the Permittee shall cover the calendar half-year in which the permit was 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.	Total Facility
Compliance Certification	due 31 days after end of each calendar year starting 08/07/2000 (for the previous calendar year). To be submitted on a form approved by the Commissioner , both to the Commissioner, and to the U.S. EPA regional office in Chicago. This report covers all deviations experienced during the calendar year. The EPA copy shall be sent to: Mr. George Czerniak, Chief, Air Enforcement and Compliance Assurance Branch, Air and Radiation Division, EPA Region V, 77 West Jackson Boulevard, Chicago, Illinois 60604	Total Facility

**APPENDIX I – Insignificant Activities**

Facility Name: Ochs Brick Co

Permit Number: 01500007-003

**Insignificant Activities and Applicable Requirements**

Minn. R. 7007.1300, subpart	Rule Description and Actual Description of the Activity	Applicable Requirement
3(A)	<p><b>Space heaters fueled by kerosene, natural gas, or propane.</b></p> <p>Natural gas fired space heaters</p>	Minn. R. 7011.0510/0515
3(B)(2)	<p><b>Fuel burning equipment with a capacity less than 500,000 Btu per hour</b></p> <p>Clay dryer, &lt;500,000 Btu/hour capacity</p>	Minn. R. 7011.0610
3(E)(2)	<p><b>Non-hazardous pollutant VOC storage tanks with a combined total tankage capacity of not more than 10,000 gallons of non-hazardous air pollutant VOCs</b></p> <p>2 – 3000 gallon VOC storage tanks</p>	Minn. R. 7011.1505
3(I)	<p><b>Individual emission units each of which have a potential to emit less than 4000 pounds per year of CO, and 2000 pounds per year of NO<sub>x</sub>, SO<sub>2</sub>, PM, PM<sub>10</sub>, VOCs, and ozone.</b></p> <p>Body additive process (PTE 9.6 lb/yr PM)</p> <p>Body additive process (PTE 67 lb/yr PM)</p> <p>Sand dryer (PTE 1000 lb/yr PM, 0.02 lb/yr SO<sub>2</sub>, 4.9 lb/yr NO<sub>x</sub>, 0.1 lb/yr VOC, 1.2 lb/yr CO)</p> <p>Brick extruder (PTE 1580 lb/yr PM)</p> <p>Rock facer (PTE 1380 tpy PM)</p>	Minn. R. 7011.0710/0715
4(B)	<p><b>Emission units with actual emissions less than one ton per year of PM, PM<sub>10</sub>, NO<sub>x</sub>, SO<sub>2</sub>, and VOCs</b></p> <p>2 cement mixers (actual emissions 0.04 tpy PM each)</p> <p>Feed hopper (actual emissions 0.2 tpy PM)</p> <p>3 raw material feed belts (actual emissions 0.18 tpy PM each)</p> <p>Kiln car/holding room (actual emissions 0.17 tpy PM each)</p> <p>Waste product transfer (actual emissions 0.34 tpy PM)</p> <p>Main plant packaging line (actual emissions 0.019 tpy PM)</p> <p>2 octagon packagers (actual emissions 0.3 tpy PM each)</p>	Minn. R. 7011.0710/0715
	<p>Stockpile loading/unloading (actual emissions 0.2 tpy PM)</p> <p>Red clay stockpile (actual emissions 0.11 tpy PM)</p> <p>Buff clay stockpile (actual emissions 0.004 tpy PM)</p>	Minn. R. 7011.0150

**TECHNICAL SUPPORT DOCUMENT**  
**For**  
**DRAFT AIR EMISSION PERMIT NO. 01500007-003**

This technical support document is for all the interested parties of the draft permit. The purpose of this document is to set forth the legal and factual basis for the draft permit conditions, including references to the applicable statutory or regulatory provisions.

## 1. General Information

### 1.1. Applicant and Stationary Source Location:

Owner Address and Phone Number	Facility Address (SIC Code: 3251)
<p style="text-align: center;">Ochs Brick Company  P.O. Box 106  Springfield, MN 56087</p> <p>Contact: Phillip Weller, Plant Manager  (507) 723-4221  (507) 723-4223 --- fax</p>	<p style="text-align: center;">Ochs Brick Company  Highway 14 East  Springfield, Brown County, MN</p>

### 1.2. Description Of The Facility

The facility manufactures bricks from clay. The primary source of air pollution is the firing kiln. Emissions are combustion products of natural gas or distillate oil, and gaseous emissions driven off as the clay is fired (sulfur dioxide, hydrogen fluoride, and hydrogen chloride). The facility has accepted limits on the annual quantity of bricks produced, the sulfur content of the clay used, and the sulfur content of the distillate oil combusted, to maintain the potential emissions of sulfur dioxide below 250 tons per year. The facility has maintained with limits as well as taken an additional limit on fuel oil usage to remain below 250 tons per year.

### 1.3 Description of the Activities Allowed By This Permit Action

This permitting action changes the Title V modeling requirements to reflect the current Minnesota Pollution Control Agency (MPCA) policy dated August 10, 2001. This permit changes the requirements from submittal of a protocol and modeling results, to the submittal of computer dispersion modeling information only.

## 2. Regulatory Overview of Units Affected by the Modification

	Applicable Regulations	Comments
Total Facility	Minn. R. 7007.0800, subp. 2	Computer Dispersion Modeling Information

## 3. Technical Information

This major amendment is a non-mandatory re-opening by the MPCA of the total facility permit according to Minn. R. 7007.1600, subp. 2.C. The Commissioner has received emissions information from the facility indicating that the source is a small Title V source as described in the August 10, 2001, MPCA Guidance For Title V Air Dispersion Modeling, and therefore the full title V modeling required by Permit No. 16900013-002 is not appropriate. As a result, this draft permit requires only submittal of modeling information.

The following table shows permitted potential and actual emissions.

	PM <sub>10</sub>	SO <sub>2</sub>	NO <sub>x</sub>
Maximum Actual Emissions To Qualify As A Small Title V Source (Tons)	100	250	1000
Permitted Emissions	86.6	197.1	54.4
2001 Actual Emissions	27.65	20.09	16.53

Therefore, the facility fits the requirements for submittal of Computer Dispersion Modeling Information, instead of a modeling protocol and modeling results.

No comments were received during the 30 day public notice or EPA 45-day review period.

## 4. Conclusion

Based on the information provided by Ochs Brick and Tile, the MPCA has reasonable assurance that the proposed operation of the emission facility, as described in the Air Emission Permit No. 01500007-003 and this technical support document, will not cause or contribute to a violation of applicable federal regulations and Minnesota Rules.

Staff Members on Permit Team: Marshall Cole