

**AIR EMISSION PERMIT NO. 09900002-008**

**IS ISSUED TO**

**Hormel Foods Corporation  
and  
Quality Pork Processors (co-operator)**  
Hormel Foods Corporation  
500 14<sup>th</sup> Avenue Northeast  
Austin, Mower County, MN 55912

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	Issuance Date	Action Number
Total Facility Operating Permit Reissuance	02/06/2004 updated 08/22/2005	See below	008

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 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 New Source Review

**Issue Date:** November 2, 2005

**Expiration:** November 2, 2010

Title I Conditions do not expire.

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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:**

The Hormel Foods Corporation (Permittee) operates a meat processing plant (facility) in Austin, Minnesota. At the facility, Quality Pork Processor (QPP) processes hogs, and the Permittee manufacturers the hogs into ham, bacon, dry sausage, fresh sausage, SPAM<sup>®</sup>, and other meat products. Byproducts consist of blood, cracklings, bone meal, and choice white grease (a component of a broader category of substances known as Refined Animal Fats (RAF)). QPP is a co-permittee however Hormel Foods owns all equipment and operates the majority of it; QPP only operates some of the emissions equipment (insignificant combustion sources) in the processing area.

There are many emission sources at the facility, however most of them qualify as insignificant activities under Minn. R. 7007.1300, subparts 3 and 4. Most of these insignificant activities are natural gas-fired combustion sources such as makeup air heaters, space heaters, and process ovens. Some of these insignificant activities are included in the following facility discussion.

Seven boilers combusting mainly natural gas provide process steam. In addition, twelve natural gas-fired process ovens produce meat products using natural or liquid smoke. Pre-cooked process lines produce pre-cooked bacon and bacon bits.

Rendering emissions are treated in a venturi scrubber and packed tower scrubbers before discharge to the atmosphere. Emissions from a bone meal dryer and a blood dryer are also treated by a venturi scrubber and packed tower scrubbers before discharge to the atmosphere.

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

11/02/05

Facility Name: Hormel Foods Corp - Austin

Permit Number: 09900002 - 008

**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>
Ambient Air Quality Standards: The Permittee shall comply with and upon written request demonstrate compliance with National Primary and Secondary Ambient Air Quality Standards in Title 40 CFR part 50, and the Minnesota Ambient Air Quality Standards at Minn. R. 7009.0010 to 7009.0080.	40 CFR part 50; Minn. Stat. Sec. 116.07, subds. 4a and 9; Minn. R. 7007.0100, subps. 7A, 7L and 7M; Minn. R. 7007.0800, subps. 1, 2, and 4; Minn. R. 7009.0010-7009.0080
Performance Testing: Conduct all performance tests in accordance with Minn. R. ch. 7017 unless otherwise noted in Tables A and/or B.	Minn. R. ch. 7017
Emission limits and emission factors determined 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. 7007.0800, subp. 2 and Minn. R. 7017.2025
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.	Minn. R. 7017.2030, subp. 1-4, Minn. R. 7017.2035, subp. 1-2, and Minn. R. 7017.2018
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 and/or B, monitoring a process or control equipment connected to that process is not necessary during periods when the process is shutdown, or during checks of the monitoring systems, such as calibration checks and zero and span adjustments. If monitoring records are required, they should reflect any such periods of process shutdown or checks of the monitoring system.	Minn. R. 7007.0800, subp. 4(D)
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)
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

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

11/02/05

Facility Name: Hormel Foods Corp - Austin

Permit Number: 09900002 - 008

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
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)
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
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)
Recordkeeping: 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)
Noise: The Permittee shall comply with the noise standards set forth in Minn. R. 7030.0010 to 7030.0080 at all times during the operation of any emission units. This is a state only requirement and is not federally enforceable.	Minn. R. 7030.0010 - 7030.0080
The Permittee shall comply with the General Conditions listed in Minn. R. 7007.0800, subp. 16.	Minn. R. 7007.0800, subp. 16
Inspections: Upon presentation of credentials and other documents as may be required by law, allow the Agency, or its representative, to enter the Permittee's premises to have access to and copy any records required by this permit, to inspect at reasonable times (which include any time the source is operating) any facilities, equipment, practices or operations, and to sample or monitor any substances or parameters at any location.	Minn. R. 7007.0800, subp. 9(A)
Emission Inventory Report: due 91 days after end of each calendar year following permit issuance (April 1). The report shall be submitted on a form approved by the Commissioner.	Minn. R. 7019.3000 through Minn. R. 7019.3010

**TABLE A: LIMITS AND OTHER REQUIREMENTS**

Facility Name: Hormel Foods Corp - Austin  
Permit Number: 09900002 - 008

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-4**

11/02/05

Facility Name: Hormel Foods Corp - Austin

Permit Number: 09900002 - 008

**Subject Item: GP 001 Boilers #1 - #7 & EU 051 NOx****Associated Items:** EU 001 Boiler #1

EU 002 Boiler #2

EU 003 Boiler #3

EU 004 Boiler #4

EU 005 Boiler #5

EU 044 Boiler #6

EU 045 Boiler #7

EU 051 Emergency RICE(s)

SV 001 Boiler Stack (Boilers 1-5) --Nat. Gas Fuel

SV 038 Boiler #6

SV 039 Boiler #7

What to do	Why to do it
<b>EMISSION LIMITS</b>	hdr
Note: The only GP 001 applicable requirement for EU 051 is the 12-month rolling sum NOx limit. See pages A-14 and A-15 for additional applicable limits and requirements for EU 051.	
Nitrogen Oxides: less than or equal to 180 tons/year using 12-month Rolling Sum total for GP 001.	Title I Condition: To limit potential NOx emissions to less than major source levels defined by 40 CFR Section 52.21
Sulfur Dioxide: less than or equal to 235 tons/year using 12-month Rolling Sum total for GP 001 combustion of fuel oil, waste oil, and refined animal fats. This does not include any SO2 emissions from distillate oil or diesel fuel combustion in EU 051.	Title I Condition: To limit potential SO2 emissions to less than major source levels defined by 40 CFR Section 52.21
Sulfur Dioxide: less than or equal to 2.0 lbs/million Btu heat input when combusting residual fuel oil (applies individually to EU 001 through EU 004).	Minn. R. 7011.0515, subp. 1
Total Particulate Matter: less than or equal to 0.4 lbs/million Btu heat input (applies individually to EU 001 through EU 005).	Minn. R. 7011.0515, subp. 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 (applies individually to EU 001 through EU 005).	Minn. R. 7011.0515, subp. 2
<b>OPERATING LIMITS</b>	hdr
Permitted Fuels:  EU 001 through EU 004: Limited to natural gas, No. 6 fuel oil, used oil, and refined animal fats (RAF) EU 005: natural gas only EU 044, and EU 045: natural gas and RAF	Minn. R. 7007.0800, subp. 2
The used oil combusted in EU 001 through EU 004 shall be used oil which is defined as any oil which has been used and as a result of such use has become contaminated by physical or chemical impurities. The used oil shall not contain any hazardous waste listed in Minn. R. 7045.0135. The used oil must be on-specification and meet the following restrictions: 1) Total Arsenic not to exceed 5 ppm 2) Total Cadmium not to exceed 2 ppm 3) Total Chromium not to exceed 10 ppm 4) Total Lead not to exceed 100 ppm 5) Flash point not less than 100 degrees F 6) Total Halogens not to exceed 1,000 ppm The Permittee must obtain and keep on-site for at least five years a laboratory analysis demonstrating that the used oil is on-specification. Laboratory analyses shall also indicate the used oil sulfur content in percent by weight.	Minn. R. 7007.0800, subp. 2
Fuel Usage: less than or equal to 15000 gallons/year using 12-month Rolling Sum of used oil as a total in EU 001 through EU 004.	Minn. R. 7007.0800, subp. 2
Limit boiler operation to a level at or below that of the most recent particulate matter performance test that measured emissions at or below the applicable particulate matter emission limit.	Minn. R. 7017.2025
<b>MONITORING</b>	hdr



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

11/02/05

Facility Name: Hormel Foods Corp - Austin

Permit Number: 09900002 - 008

Determination of Sulfur Content of Fuel Oil In Storage Tanks: Immediately after any fuel oil delivery, the Permittee shall determine and record the sulfur content of the fuel oil, in percent by weight, in the fuel oil storage tanks using either Method 1 or Method 2:	Minn. R. 7007.0800, subp. 4 and 5
<p>Method 1: Using fuel supplier certification, calculate the fuel oil sulfur content as follows:</p> <p>Obtain and maintain a fuel supplier certification for each delivery of fuel oil that specifies actual sulfur content in percent by weight of the delivered fuel oil. Calculate and record the sulfur content after each fuel oil delivery, based on the known sulfur content and fuel volume in the tanks prior to delivery, and the percent sulfur content and volume of the fuel delivery, as follows:</p> $So = [(Ve * Se) + (Vd * Sd)]/Vt$ <p>where:                      So = sulfur content of fuel oil after delivery (% by wt)                      Ve = total fuel oil volume in tanks before delivery (gallons)                      Se = sulfur content of oil in tanks before delivery (% by wt)                      Vd = volume of delivery (gallons)                      Sd = sulfur content (% by wt) of delivered fuel oil based on supplier certification                      Vt = total fuel volume in tanks after delivery, <math>Vt = Ve + Vd</math> (gallons)</p> <p>OR</p>	Minn. R. 7007.0800, subp. 4 and 5
<p>Method 2: Sample and analyze the fuel oil in the common header for the three storage tanks that supplies fuel oil to EU 001 - EU 004. Sample and analyze after each delivery but not more than once each calendar week when multiple deliveries are made in a calendar week. Sample within 48 hours after any delivery or within 48 hours after the last of multiple deliveries in a calendar week.</p> <p>Record the date and time of each delivery and sampling, initials of person recording the information, and results of the fuel oil sulfur content analysis in percent by weight. Analyze the sample to determine sulfur content in percent by weight according to ASTM D-1552 or current ASTM method.</p>	Minn. R. 7007.0800, subp. 4 and 5
RECORDKEEPING	hdr
Separately record and maintain records of the quantity of natural gas combusted by EU 044 and the quantity of natural gas combusted by EU 045, on a monthly basis.	40 CFR Section 60.48c(g)
<p>Recordkeeping - Fuel Usage: Once each day calculate and record the GP 001 usage of fuel oil (gallons), used oil (gallons), and natural gas (cubic feet), the RAF usage in EU 001 through EU 004 (gallons), and the RAF usage in EU 044 and 045 (gallons), during the previous calendar day.</p> <p>By the 15th day of each month, calculate and record the GP 001 usage of fuel oil (gallons), used oil (gallons), and natural gas (cubic feet), the RAF usage in EU 001 through EU 004 (gallons), and the RAF usage in EU 044 and 045 (gallons), during the previous calendar month.</p>	Title I Condition: To limit potential SO <sub>2</sub> and NO <sub>x</sub> emissions to less than major source levels defined by 40 CFR Section 52.21; Minn. R. 7007.0800, subp. 4 and 5
<p>Sulfur Dioxide Emissions Monitoring: By the 15th day of each month the Permittee shall:</p> <p>1) Calculate and record the tons of SO<sub>2</sub> emitted during the previous calendar month from the combustion of fuel oil, used oil, and RAF, using the following equation:</p> $SO_2 = (0.157AX + 0.157BY + 0.157CZ)/2000$ <p>where:</p>	Minn. R. 7007.0800, subp. 4 and 5
<p>SO<sub>2</sub> = Sulfur dioxide emitted during the previous month (tons)                      A = GP 001 gallons of fuel oil burned during the previous month                      B = GP 001 gallons of used oil burned during the previous month                      C = GP 001 gallons of refined animal fat burned during the previous month                      X = weight percent of sulfur in fuel oil burned the previous month as determined by Method 1 or 2 described above                      Y = weight percent of sulfur in used oil burned the previous month                      Z = weight percent of sulfur in RAF burned the previous month</p> <p>2) Calculate and record the 12-month rolling sum GP 001 SO<sub>2</sub> emissions from the combustion of fuel oil, used oil, and RAF, by summing the monthly SO<sub>2</sub> emissions determined with the above equation, for the previous 12 months.</p>	Minn. R. 7007.0800, subp. 4 and 5

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

11/02/05

Facility Name: Hormel Foods Corp - Austin

Permit Number: 09900002 - 008

<p>Nitrogen Oxides Emissions Monitoring: By the 15th day of each month the Permittee shall:</p> <p>1) Calculate and record the tons of NOx emitted from GP 001 (including EU 051) during the previous calendar month using the following equation:</p> $\text{NOx} = (0.055A + X1B1 + X2B2 + 0.0001C + \text{EU 051 NOx})/2000$ <p>where:</p> <p>NOx = the amount of nitrogen oxides emitted during the previous month (tons)  A = GP 001 gallons of fuel oil and used oil burned during the previous month  B1 = GP 001 gallons of RAF burned during the previous month in EU 001 - 004  B2 = GP 001 gallons of RAF burned during the previous month in EU 044 &amp; 045  X1 = NOx emission factor in lb of NOx/gallon of RAF from most recent test while combusting RAF in EU 001 - 004  X2 = NOx emission factor in lb of NOx/gallon of RAF from most recent test while combusting RAF in EU 044 &amp; 045 (if RAF NOx emission testing data is not available, X1 and/or X2 shall be 0.0366 lb/gal)  C = GP 001 cubic feet of natural gas combusted during the previous month  EU 051 NOx = monthly NOx emissions (lbs) calculated according to requirements in subject item EU 051</p>	Minn. R. 7007.0800, subp. 4 and 5
<p>(continued from above)</p> <p>2) Calculate and record the 12-month rolling sum GP 001 (including EU 051) NOx emissions by summing the monthly NOx emissions determined with the above equation, for the previous 12 months.</p>	Minn. R. 7007.0800, subp. 4 and 5
PERFORMANCE TESTING AND ANALYSIS	hdr
RAF Sulfur Content: Perform an analysis during each 12-month period following permit issuance to determine weight percent sulfur content in RAF. The first analysis shall be performed within 180 days of permit issuance.	Title I Condition: To limit potential SO2 emissions to less than major source levels defined by 40 CFR Section 52.21
Performance Test: due before end of each calendar 60 months starting 09/15/2002 to measure NOx emissions while combusting only RAF in either EU 001, EU 002, EU 003, or EU 004. Testing is required only if a total of more than 500,000 gallons of RAF has been combusted in EU 001 through EU 004 during the 60-month period starting 09/15/2002.	Title I Condition: To limit potential NOx emissions to less than major source levels defined by 40 CFR Section 52.21
Performance Test: due 180 days after Initial Startup of RAF combustion in EU 044 and/or EU 045, to measure NOx emissions. Testing shall be conducted when combusting only RAF, and on either EU 044 or EU 045.	Title I Condition: To limit potential NOx emissions to less than major source levels defined by 40 CFR Section 52.21
Performance Test: due 60 days after Permit Issuance to measure PM and opacity while combusting No. 6 fuel oil in EU 001 or EU 002. The Permittee may fulfill this requirement before issuance of permit No. 09900002-008.	Minn. R. 7017.2020, subp. 1
<p>Performance Test: due 60 days after end of each 60 months following Permit Issuance to measure PM and opacity while combusting No. 6 fuel oil in EU 001, EU 002, or EU 003, and while combusting No. 6 fuel oil in EU 004. For EU 001 through EU 003, the Permittee shall always test the emission unit whose previous test is the least current. EU 004 shall be tested every 60 months.</p> <p>This is the testing that occurs at 5-year intervals after the testing conducted within 60 days after issuance of this permit.</p>	Minn. R. 7017.2020, subp. 1

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

11/02/05

Facility Name: Hormel Foods Corp - Austin

Permit Number: 09900002 - 008

**Subject Item: GP 003 Natural Smoke Process**

**Associated Items:**

- EU 006 Smoked Meat Oven #6 with recirculated natural wood smoke
- EU 007 Smoked Meat Oven #7 with recirculated natural wood smoke
- EU 008 Smoked Meat Oven #8 with recirculated natural wood smoke
- EU 009 Smoked Meat Oven #9 with recirculated natural wood smoke
- EU 010 Smoked Meat Oven #10 with recirculated natural wood smoke
- EU 011 Smoked Meat Oven #11 with recirculated natural wood smoke
- EU 031 Natural Smoke Generator
- EU 032 Natural Smoke Generator
- SV 003 Natural Smoke Meat Oven #6 - Schroeter #1/2
- SV 005 Natural Smoke Meat Oven #7 - Schroeter #1/2
- SV 007 Natural Smoke Meat Oven #8 - Schroeter #1/2
- SV 009 Natural Smoke Meat Oven (EU 009)
- SV 011 Natural Smoke Meat Oven (EU 010)
- SV 012 Natural Smoke Meat Oven (EU 011)

What to do	Why to do it
<b>EMISSION LIMITS</b>	hdr
Total Particulate Matter: less than 0.30 grains/dry standard cubic foot unless required to reduce emissions to meet the less stringent limit of either 7011.0730 or 7011.0735 (table 1 and 2, respectively). This limit applies individually to each stack/vent.	Minn. R. 7011.0715, subp. 1(A)
Opacity: less than or equal to 20 percent . This limit applies individually to each stack/vent.	Minn. R. 7011.0715, subp. 1(B)
<b>PERFORMANCE TEST REQUIREMENTS</b>	hdr
Performance Test: due 60 days after Permit Issuance to measure PM and opacity from one of the GP 003 emission units while using natural smoke from EU 031 or EU 032. The Permittee may fulfill this requirement before issuance of permit No. 09900002-008.	Minn. R. 7017.2020, subp. 1
Performance Test: due 60 days after end of each 60 months following Permit Issuance to measure PM and opacity from one of the GP 003 emission units while using natural smoke from EU 031 or EU 032. This is the testing that occurs at 5-year intervals after the testing conducted within 60 days after issuance of this permit.	Minn. R. 7017.2020, subp. 1

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

11/02/05

Facility Name: Hormel Foods Corp - Austin

Permit Number: 09900002 - 008

**Subject Item: GP 005 Precook Processes****Associated Items:** CE 006 Mist Eliminator - High Velocity, i.e., V>250 Ft/Min

CE 007 Mist Eliminator - High Velocity, i.e., V&gt;250 Ft/Min

CE 025 Mist Eliminator - High Velocity, i.e., V&gt;250 Ft/Min

EU 018 Precooked Bacon, South

EU 019 Precooked Bacon, North

EU 020 Precooked Bacon, East

EU 021 Precooked Bacon, West

EU 029 Bacon Bits Precooked Line

SV 019 Precooked Bacon Stack N/S

SV 020 Precooked Bacon Stack E/W

SV 050 Bacon Bits Line (EU 029/CE 025)

What to do	Why to do it
EMISSION LIMITS	hdr
Total Particulate Matter: less than 0.30 grains/dry standard cubic foot unless required to reduce emissions to meet the less stringent limit of either 7011.0730 or 7011.0735 (table 1 and 2, respectively). This limit applies individually to each stack/vent.	Minn. R. 7011.0715, subp. 1(A)
Opacity: less than or equal to 20 percent opacity . This limit applies individually to each stack/vent.	Minn. R. 7011.0715, subp. 1(B)
OPERATING REQUIREMENTS	hdr
Vent all emissions from GP 005 precooked process equipment through the corresponding mist eliminator (CE 006, CE 007, or CE 025).	Minn. R. 7007.0800, subp. 2
CONTROL EQUIPMENT REQUIREMENTS	hdr
The Permittee shall operate and maintain each mist eliminator in accordance with the Operation and Maintenance (O & M) Plan. The Permittee shall keep copies of the O & M Plan available onsite for use by staff and MPCA staff.	Minn. R. 7007.0800, subp. 14
Monitoring Equipment: The Permittee shall install and maintain the necessary monitoring equipment for measuring and recording pressure drop and water flow rate for each mist eliminator, as required by this permit. The monitoring equipment must be installed, in use, and properly maintained when the mist eliminator is controlling emissions.	Minn. R. 7007.0800, subp. 4
CE 006 and CE 007 Pressure Differential: Not less than 0 inches wc and not more than 2 inches wc for each mist eliminator when controlling precooked process emissions.	Minn. R. 7007.0800, subp. 14
CE 006 and CE 007 Minimum Water Flow Rate: Not less than 1 gallon per minute, for each mist eliminator when controlling precooked process emissions.	Minn. R. 7007.0800, subp. 14
CE 025 Pressure Differential: Less than 2 inches wc when controlling process emissions.	Minn. R. 7007.0800, subp. 14
CE 025 Minimum Water Flow Rate when controlling process emissions:	Minn. R. 7007.0800, subp. 14
Filter: not less than 2 gallon per minute; Upper Intake: not less than 1 gallon per minute Lower Intake: not less than 1 gallon per minute	
Daily Monitoring: Once each day of operation, the Permittee shall monitor and record the pressure differential and water flow rate for each mist eliminator that is controlling any GP 005 precooked process emissions.	Minn. R. 7007.0800, subp. 4 and 5
Periodic Inspections: Once per calendar quarter, or at a frequency prescribed by the manufacturer, the Permittee shall inspect the components of each mist eliminator. The Permittee shall maintain a written record of the results of each inspection.	Minn. R. 7007.0800, subp. 4, 5, and 14

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

11/02/05

Facility Name: Hormel Foods Corp - Austin

Permit Number: 09900002 - 008

Corrective Actions: The Permittee shall take corrective action as soon as possible if any of the following occur:

- the pressure drop across any mist eliminator is outside the required operating range;
- the water flow rate for any mist eliminator is less than the required minimum; or
- any mist eliminator or any of its components are found during any inspection to need repair.

Corrective actions shall return the pressure drop to within the permitted range, restore the water flow rate to at least the required minimum, 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 mist eliminator. The Permittee shall keep a record of the type and date of any corrective action taken for any of the mist eliminators.

Minn. R. 7007.0800, subp. 4, 5, and 14

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

11/02/05

Facility Name: Hormel Foods Corp - Austin

Permit Number: 09900002 - 008

**Subject Item: GP 010 Blood and Bone Meal Dryers****Associated Items:** CE 018 Venturi Scrubber

CE 019 Packed-Gas Adsorption Column

CE 024 Packed-Gas Adsorption Column

EU 036 Existing Scott Bone Dryer

EU 050 New Duske Blood Dryer

EU 071 Room Air - Blood &amp; Bone Drying

SV 033 Blood &amp; Bone Dryers CE 018/CE 024 (venturi &amp; packed tower E; bypasses packed tower F) (EU 036/EU 050)

SV 045 Blood &amp; Bone Dryers CE 018/CE 019/CE 024 (venturi &amp; packed towers E and F) (EU 036/EU 050)

What to do	Why to do it
EMISSION LIMITS	hdr
Total Particulate Matter: less than or equal to 0.3 grains/dry standard cubic foot unless required to reduce emissions to meet the less stringent limit of either 7011.0730 or 7011.735 (table 1 and 2, respectively.)	Minn. R. 7011.0715, subp. 1(A)
Opacity: less than or equal to 20 percent	Minn. R. 7011.0715, subp. 1(B)
OPERATING REQUIREMENTS	hdr
Vent emissions from both the blood and bone dryers through CE 018 (venturi scrubber) and then through CE 024 (Tower E). After CE 024 the Permittee has the option of routing emissions to CE 019 (Tower F), and then through SV 045, or bypass CE 019 and vent emissions from CE 024 through SV 033.	Minn. R. 7007.0800, subp. 2
CE 018 (VENTURI SCRUBBER), CE 019 (TOWER F) AND CE 024 (TOWER E) CONTROL EQUIPMENT REQUIREMENTS	hdr
The Permittee shall operate and maintain CE 018, CE 019, and CE 024 in accordance with the Operation and Maintenance (O & M) Plan. The Permittee shall keep copies of the O & M Plan available onsite for use by staff and MPCA staff.	Minn. R. 7007.0800, subp. 14
Monitoring Equipment: The Permittee shall install and maintain the necessary monitoring equipment for measuring and recording pressure drop and water flow rate for CE 018, CE 019, and CE 024, as required by this permit. The monitoring equipment must be installed, in use, and properly maintained when CE 018, CE 019, and CE 024 are in operation.	Minn. R. 7007.0800, subp. 4
CE 018 Pressure Differential: greater than or equal to 5 inches wc. CE 019 Pressure Differential: less than 7 inches wc. CE 024 Pressure Differential: less than 5 inches wc.	Minn. R. 7007.0800, subp. 14
CE 018 Water Flow Rate: not less than 10 gallons per minute CE 019 Water Flow Rate: not less than 150 gallons per minute CE 024 Water Flow Rate: not less than 50 gallons per minute	Minn. R. 7007.0800, subp. 14
CE 018, CE 019, and CE 024 Daily Monitoring: Once each day of operation, the Permittee shall monitor and record the pressure differential and the water flow rate for CE 018, CE 019, and CE 024.	Minn. R. 7007.0800, subp. 4 and 5
Periodic Inspections: Once per calendar quarter, or at a frequency prescribed by the manufacturer, the Permittee shall inspect the components of CE 018, CE 019, and CE 024. The Permittee shall maintain a written record of the results of each inspection.	Minn. R. 7007.0800, subp. 4, 5, and 14
Corrective Actions: The Permittee shall take corrective action as soon as possible if any of the following occur:  - the pressure drop is outside the required operating range; - the water flow rate is below the permitted minimum; or - the scrubber or any of its components are found during any inspection to need repair.  Corrective actions shall return the pressure drop to within the permitted range, the water flow rate to at least the required minimum, 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 CE 018, CE 019, and CE 024. The Permittee shall 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-11**

11/02/05

Facility Name: Hormel Foods Corp - Austin

Permit Number: 09900002 - 008

**Subject Item:** EU 027 Rendering Room Air**Associated Items:** CE 008 Packed-Gas Adsorption Column

SV 026 Rendering Room Scrubber Stack

What to do	Why to do it
EMISSION LIMITS	hdr
Total Particulate Matter: less than or equal to 8.38 lbs/hour	Title I Condition: to limit PM emissions to less than major source levels as defined by 40 CFR 52.21; meets requirements of Minn. R. 7011.0715, subp. 1(A)
Particulate Matter < 10 micron: less than or equal to 8.38 lbs/hour	Title I Condition: to limit PM10 emissions to less than major source levels as defined by 40 CFR 52.21
Opacity: less than or equal to 20 percent opacity	Minn. R. 7011.0715, subp. 1(B)
OPERATING REQUIREMENTS	hdr
Vent all Rendering Room Air emissions through CE 008.	Minn. R. 7007.0800, subp. 2
CE 008 (TOWER A) CONTROL EQUIPMENT REQUIREMENTS	hdr
The Permittee shall operate and maintain CE 008 in accordance with the Operation and Maintenance (O & M) Plan. The Permittee shall keep copies of the O & M Plan available onsite for use by staff and MPCA staff.	Minn. R. 7007.0800, subp. 14
Monitoring Equipment: The Permittee shall install and maintain the necessary monitoring equipment for measuring and recording pressure drop and water flow rate for CE 008, as required by this permit. The monitoring equipment must be installed, in use, and properly maintained when CE 008 is in operation.	Minn. R. 7007.0800, subp. 4
CE 008 Pressure Differential: Not less than 5 inches wc.	Minn. R. 7007.0800, subp. 14
CE 008 Water Flow Rate: Not less than 100 gallons per minute.	Minn. R. 7007.0800, subp. 14
CE 008 Daily Monitoring: Once each day of operation, the Permittee shall monitor and record the pressure differential and the water flow rate for CE 008.	Minn. R. 7007.0800, subp. 4 and 5
Periodic Inspections: Once per calendar quarter, or at a frequency prescribed by the manufacturer, the Permittee shall inspect the components of CE 008. The Permittee shall maintain a written record of the results of each inspection.	Minn. R. 7007.0800, subp. 4, 5, and 14
Corrective Actions: The Permittee shall take corrective action as soon as possible if any of the following occur:  - the pressure drop is below the required minimum; - the water flow rate is below the permitted minimum; or - the scrubber or any of its components are found during any inspection to need repair.  Corrective actions shall return the pressure drop to within the permitted range, the water flow rate to at least the required minimum, 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 CE 008. The Permittee shall 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-12**

11/02/05

Facility Name: Hormel Foods Corp - Austin

Permit Number: 09900002 - 008

**Subject Item:** EU 028 Rendering Machinery**Associated Items:** CE 008 Packed-Gas Adsorption Column

CE 009 Venturi Scrubber

CE 022 Packed-Gas Adsorption Column

CE 023 Packed-Gas Adsorption Column

SV 026 Rendering Room Scrubber Stack

SV 027 Rendering Cooker Stack

What to do	Why to do it
<b>EMISSION LIMITS</b>	hdr
Total Particulate Matter: less than or equal to 7.34 lbs/hour for SV 027. This limit applies when EU 028 emissions are controlled by CE 009 (venturi scrubber), CE 022 (Tower B), and CE 023 (Tower C) and vented through SV 027 (rendering process equipment bypass stack). See EU 027 for applicable limit when EU 028 emissions are controlled by CE 009 & CE 008 (Tower A) and vented through SV 026 (main stack).	Title I Condition: To limit potential PM emissions to less than major source levels as defined by 40 CFR 52.21; meets requirements of Minn. R. 7011.0715, subp. 1(A)
Particulate Matter < 10 micron: less than or equal to 7.34 lbs/hour for SV 027. This limit applies when EU 028 emissions are controlled by CE 009 (venturi scrubber), CE 022 (Tower B), and CE 023 (Tower C) and vented through SV 027 (rendering process equipment bypass stack). See EU 027 for applicable limit when EU 028 emissions are controlled by CE 009 & CE 008 (Tower A) and vented through SV 026 (main stack).	Title I Condition: To limit potential PM10 emissions to less than major source levels as defined by 40 CFR 52.21
Opacity: less than or equal to 20 percent opacity for SV 027.	Minn. R. 7011.0715, subp. 1(B)
<b>OPERATING REQUIREMENTS</b>	hdr
Vent all emissions from Rendering Machinery through CE 009 (venturi scrubber), and then CE 022 (Tower B) and CE 023 (Tower C). After CE 023 the Permittee has the option of routing emissions to CE 008 (Tower A) and then through SV 026, or bypass CE 008 and vent from CE 023 through SV 027.	Minn. R. 7007.0800, subp. 2
<b>CE 009 (VENTURI SCRUBBER), CE 022 (TOWER B), AND CE 023 (TOWER C) CONTROL EQUIPMENT REQUIREMENTS</b>	hdr
The Permittee shall operate and maintain CE 009, CE 022, and CE 023 in accordance with the Operation and Maintenance (O & M) Plan. The Permittee shall keep copies of the O & M Plan available onsite for use by staff and MPCA staff.	Minn. R. 7007.0800, subp. 14
Monitoring Equipment: The Permittee shall install and maintain the necessary monitoring equipment for measuring and recording pressure drop and water flow rate as required by this permit. The monitoring equipment must be installed, in use, and properly maintained when CE 009, CE 022, and CE 023 are in operation.	Minn. R. 7007.0800, subp. 4
CE 009, CE 022, and CE 023 Pressure Differential: Less than 5 inches wc for CE 022, less than 5 inches wc for CE 023, and not less than 5 inches wc for CE 009.	Minn. R. 7007.0800, subp. 14
CE 009, CE 022, and CE 023 Water Flow Rate: Not less than 20 gallons per minute for CE 022, not less than 30 gallons per minute for CE 023, and not less than 50 gallons per minute for CE 009.	Minn. R. 7007.0800, subp. 14
CE 009, CE 022, and CE 023 Daily Monitoring: Once each day of operation, the Permittee shall monitor and record the pressure differential and water flow rate for CE 009, CE 022, and CE 023.	Minn. R. 7007.0800, subp. 4 and 5
Periodic Inspections: At least once per calendar quarter, or more frequently as required by the manufacturer, the Permittee shall inspect the components of CE 009, CE 022, and CE 023. The Permittee shall maintain a written record of the results of each inspection.	Minn. R. 7007.0800, subp. 4, 5, and 14



**TABLE A: LIMITS AND OTHER REQUIREMENTS****A-13**

11/02/05

Facility Name: Hormel Foods Corp - Austin

Permit Number: 09900002 - 008

Corrective Actions: The Permittee shall take corrective action as soon as possible if any of the following occur:

- the pressure drop of the venturi scrubber or any packed tower is below the required minimum;
- the water flow rate of the venturi scrubber or any packed tower is below the permitted minimum; or
- the venturi scrubber or the packed towers or any of their components are found during any inspection to need repair.

Corrective actions shall return the pressure drop to within the permitted range, return the water flow rate to at least the permitted minimum, 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 venturi scrubber and packed towers. The Permittee shall 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-14**

11/02/05

Facility Name: Hormel Foods Corp - Austin

Permit Number: 09900002 - 008

**Subject Item:** EU 051 Emergency RICE(s)**Associated Items:** GP 001 Boilers #1 - #7 & EU 051 NOx

SV 044 Emergency RICE(s) (EU 051)

What to do	Why to do it
<b>LIMITS AND OPERATING REQUIREMENTS</b>	hdr
Note: GP 001 is an associated item only because EU 051 NOx emissions are included in the GP 001 NOx emissions calculations.	
Operating Hours: less than or equal to 500 hours/year using 12-month Rolling Sum as a total for all emergency RICE.	Minn. R. 7007.0800, subp. 2 and September 6, 1995, U.S. EPA memorandum entitled "Calculating Potential to Emit for Emergency Generators"
Sulfur Dioxide: less than or equal to 0.5 lbs/million Btu heat input	Minn. R. 7011.2300, subp. 2
Opacity: less than or equal to 20 percent opacity once operating temperatures have been attained.	Minn. R. 7011.2300, subp. 1
Emergency Reciprocating Internal Combustion Engine (RICE) Operation: The Permittee is authorized to operate temporary or permanent emergency RICE at the facility, providing the total horsepower of all emergency RICE does not exceed 599 hp on a calendar-day basis, and any single engine does not exceed 500 hp.	Minn. R. 7007.0800, subp. 2
Permitted Fuels: gasoline, diesel fuel, natural gas, kerosene/naphtha, butane, or propane.	Minn. R. 7007.0800, subp. 2
Operation of Emergency RICE(s): The EU 051 Emergency RICE(s) shall only operate under emergency situations. An emergency RICE is a reciprocating internal combustion engine which only operates when no other mechanical power source is available to meet life safety and temporary production requirements, and operates for necessary routine periodic equipment testing. Life safety and temporary production requirements do not occur during routine operation or production and are circumstances demanding power to avoid death, illness, injury, or damage to process equipment or product.  An emergency RICE is a power source used to generate electricity, pump water or other liquids, or other application. Emergency RICE does not include RICE electric generators operated by an electric customer during periods of intentional electric service disruption by the electric service provider or a RICE used as a substitute for another power source that is undergoing scheduled maintenance.	Minn. R. 7007.0800, subp. 2
<b>RECORDKEEPING</b>	hdr
Recordkeeping: For each emergency RICE that is operated at the facility, the Permittee shall record the arrival and departure date of the engine.  Once each day, the Permittee shall record in a log the serial number, model, manufacturer, horsepower rating and hours of operation of each emergency RICE that operated at the facility during the previous calendar day. If no emergency RICE were operated, the log shall indicate this.  By the 15th day of each month, the Permittee shall calculate and record the total emergency RICE operating hours for the previous month, and the previous 12-month period.	Minn. R. 7007.0800, subp. 4 and 5
Diesel Fuel Supplier Certification: For each delivery of diesel fuel, the Permittee shall obtain a supplier certification that either states the actual sulfur content in percent by weight in the diesel fuel, or guarantees that the sulfur content does not exceed a prescribed maximum amount, in percent by weight.	Minn. R. 7007.0800, subp. 4 and 5
Recordkeeping - Fuel Usage: Once each day calculate and record the EU 051 usage of gasoline (gallons), diesel fuel (gallons), natural gas (cubic feet), kerosene/naphtha (gallons), butane (gallons), or propane (gallons), during the previous calendar day.  By the 15th day of each month, calculate and record the EU 051 usage of gasoline (gallons), diesel fuel (gallons), natural gas (cubic feet), kerosene/naphtha (gallons), butane (gallons), or propane (gallons), during the previous calendar month. The Permittee shall convert and record the monthly fuel usage from a volume basis, to a heat input basis according to the procedure in the appendix.	Title I Condition: To limit potential NOx emissions to less than major source levels defined by 40 CFR Section 52.21; Minn. R. 7007.0800, subp. 4 and 5

**TABLE A: LIMITS AND OTHER REQUIREMENTS****A-15**

11/02/05

Facility Name: Hormel Foods Corp - Austin

Permit Number: 09900002 - 008

<p>Nitrogen Oxides Emissions Monitoring: By the 15th day of each month the Permittee shall:</p> <p>1) Calculate and record the tons of NO<sub>x</sub> emitted from EU 051 during the previous calendar month using the following equation:</p> $\text{NO}_x = (\text{Fa} * \text{Ha}) + (\text{Fb} * \text{Hb}) + (\text{Fc} * \text{Hc}) + (\text{Fd} * \text{Hd}) + (\text{Fe} * \text{He}) + (\text{Ff} * \text{Hf})$ <p>(continued)</p>	Minn. R. 7007.0800, subp. 4 and 5
<p>where:</p> <p>NO<sub>x</sub> = EU 051 pounds NO<sub>x</sub>/month</p> <p>Fa = diesel fuel emission factor</p> <p>Ha = diesel fuel heat input</p> <p>Fb = natural gas emission factor</p> <p>Hb = natural gas heat input</p> <p>Fc = gasoline emission factor</p> <p>Hc = gasoline heat input</p> <p>Fd = propane emission factor</p> <p>Hd = propane heat input</p> <p>Fe = kerosene/naphtha emission factor</p> <p>He = kerosene/naphtha heat input</p> <p>Ff = butane emission factor</p> <p>Hf = butane heat input</p> <p>All heat input are in units of mmBtu per month and determined according to the procedure in the appendix. Emission factors (lb/mmBtu) are listed in the appendix, or obtained from the current version of AP-42 or the current MPCA emission calculation form for internal combustion engines, if more current than the appendix.</p>	Minn. R. 7007.0800, subp. 4 and 5

## TABLE B: SUBMITTALS

B-1 11/02/05

Facility Name: Hormel Foods Corp - Austin  
Permit Number: 09900002 - 008

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.

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

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

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 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 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.

**TABLE B: RECURRENT SUBMITTALS****B-2** 11/02/05

Facility Name: Hormel Foods Corp - Austin

Permit Number: 09900002 - 008

<b>What to send</b>	<b>When to send</b>	<b>Portion of Facility Affected</b>
Semiannual Deviations Report	due 30 days after end of each calendar half-year starting 08/05/1999 . 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.	Total Facility
Compliance Certification	due 31 days after end of each calendar year starting 08/05/1999 (for the previous calendar year). The certification shall 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

Facility Name:Hormel Foods Corporation - Austin

Permit Number: 09900002-008

### 1. EU 051 Nitrogen Oxides Emission Factors and Fuel Heat Contents

Fuel Type	NOx Emission Factor (lb/mmBtu)	Fuel Heat Content
Gasoline	1.63	0.13 mmBtu/gallon
Diesel Fuel	4.41	0.137 mmBtu/gallon
Natural Gas	4.08	0.0105 mmBtu/cubic foot
Kerosene/naphtha	3.474	0.135 mmBtu/gallon
Propane	1.519	0.0915 mmBtu/gallon
Butane	1.355	0.1026 mmBtu/gallon

#### Conversion of Fuel Volume to Heat Input:

$F_v * F_h = \text{Fuel Heat Input (mmBtu/month)}$

Where:

$F_v$  = volume of fuel used (gallons or cubic feet per month)

$F_h$  = fuel heat content as listed above (mmBtu/gallon or mmBtu/cubic foot)

## 2. Insignificant Activities Required to be Listed

Minn. R. 7007.1300, subp.	Activity	Applicable Minn. R. Standard
3.A	Space Heaters - N Holding Pen 2 @0.32 mmBtu/hr	7011.0515 PM and opacity
3.A.	Shop Space Heater 0.75 mmBtu/hr	7011.0515 PM and opacity
3.A.	Break Room Space Heater 0.125 mmBtu/hr	7011.0515 PM and opacity
3.E(1)	500 gallon gasoline tank at QPP	
3.F	Laundry units 2 @0.25 mmBtu/hr & 2 @0.20 mmBtu/hr	7011.0515 PM and opacity
3.H(3)	4 welding stations and several portable welders	7011.0715 PM and opacity
3.I	Nine vacuum pump vents	7011.0715 PM and opacity
3.I	GP Salt System	7011.0715 PM and opacity
3.I	GP Sugar System	7011.0715 PM and opacity
3.I	12 smoked meat/prepared sausage ovens w/smoke flavor spray	7011.0610 PM and opacity
3.I	Precooked Bacon Oven Room Vent	7011.0715 PM and opacity
3.I	Three vacuum pump vents	7011.0715 PM and opacity
3.I	MP Salt System	7011.0715 PM and opacity
3.I	17 dry sausage ovens	7011.0715 PM and opacity
3.I	Two vacuum pump vents	7011.0715 PM and opacity
3.I	Two 200,000 gallon fuel oil tanks	7011.1505
3.I	One 100,000 gallon fuel oil tank	7011.1505
3.I	One 500 gallon diesel fuel tank @QPP	
3.I	One 200,000 gallon lard tank - steam heated	
3.I	One 200,000 gallon tallow tank - steam heated	
3.I	Five dehairing room vents	
3.I	KC-7 MAH @2.16 mmBtu/hr	7011.0515 PM and opacity
3.I	Kill Floor MAU @1.0 mmBtu/hr	7011.0515 PM and opacity
3.I	Dessicant Air Handler @0.273 mmBtu/hr	7011.0515 PM and opacity
3.I	RWO MAU @0.243 mmBtu/hr	7011.0515 PM and opacity
3.I	Drench Cabinet MAU @0.21 mmBtu/hr	7011.0515 PM and opacity
3.I	Pig Skin Salt System	7011.0715 PM and opacity
3.I	Office boiler @0.396 mmBtu/hr	7011.0515 PM and opacity
3.I	Rendering MAU @2.17 mmBtu/hr	7011.0515 PM and opacity
3.I	Hog Hair Hydrolyzer	7011.0715 PM and opacity
3.I	New Boiler Room MAU @1.361 mmBtu/hr	7011.0515 PM and opacity
3.I	Natural Gas Standby Generator	7011.2300 SO <sub>2</sub> and opacity
4	Three vapor smoke generators	7011.0715 PM and opacity
4	Old Boiler Room MAU @5.616 mmBtu/hr	7011.0515 PM and opacity
4	Two Radiant Wall Ovens @3.0 mmBtu/hr each	7011.0610 PM and opacity
4	Hog Hair Singer #1 @8 mmBtu/hr	7011.0715 PM and opacity
4	Hog Hair Singer #2 @6.5 mmBtu/hr	7011.0715 PM and opacity
4	KC-9 MAH @5.612 mmBtu/hr	7011.0515 PM and opacity
4	Two Rendering MAH @2.48 mmBtu/hr each	7011.0515 PM and opacity
4	Room Air - Blood/Bone Drying	7011.0715 PM and opacity
4	Dock Area Room Air	7011.0715 PM and opacity
4	Dock Area Surface Vents	7011.0715 PM and opacity
4	Two Hog Cut Space Heaters @ 4mmBtu/hr each	7011.0515 PM and opacity
4	Two Pretreatment Space Heaters @ 2.313 mmBtu/hr each	7011.0515 PM and opacity
4	Two Front End Kill Space Heaters @3.255 mmBtu/hr each	7011.0515 PM and opacity
Minn. R. 7008.4110	Maintenance grinding & sawdust cyclone vented indoors 100% of the time	7011.0715 PM and opacity

**TECHNICAL SUPPORT DOCUMENT**  
**For**  
**AIR EMISSION PERMIT NO. 09900002-008**

This technical support document is for parties interested in the permit and meets the requirements of 40 CFR § 70.7(a)(5) and Minn. R. 7007.0850, subp. 1. This document provides 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: <b>2013/2011</b> )
Hormel Foods Corporation 1 Hormel Place Austin, MN 55912-3680	Hormel Foods Corporation 500 14 <sup>th</sup> Avenue NE Austin, Mower County
Contact: <b>Rich Johnson</b> Phone: <b>(507) 437-5955</b>	

**1.2. Description of the Facility and this Permit Action**

The Hormel Foods Corporation (Permittee) operates a meat processing plant (facility) in Austin, Minnesota. At the facility, Quality Pork Processor (QPP) processes hogs, and the Permittee manufacturers the hogs into ham, bacon, dry sausage, fresh sausage, SPAM<sup>®</sup>, and other meat products. Byproducts consist of blood, cracklings, bone meal, and choice white grease (a component of a broader category of substances known as Refined Animal Fats (RAF)). QPP is a co-permittee however Hormel Foods owns all equipment and operates the majority of it; QPP only operates some of the emissions equipment (insignificant combustion sources) in the processing area.

There are many emission sources at the facility, however most of them qualify as insignificant activities under Minn. R. 7007.1300, subparts 3 and 4. Most of these insignificant activities are natural gas-fired combustion sources such as makeup air heaters, space heaters, and process ovens. Some of these insignificant activities are included in the following facility discussion.

Emissions from five boilers (EU 001 - EU 005) are discharged to the atmosphere through a common stack (SV 001). All five are permitted to combust natural gas, and EU 001 through EU 004 are also permitted to burn No. 6 fuel oil, RAF, and a limited amount of used oil. Additionally, emissions from two natural gas/RAF-fired boilers (EU 044 and EU 045) are discharged to the atmosphere through separate stacks.

Twelve natural gas-fired process ovens (EU 006 - EU 017) are used at the facility. Seven ovens (EU 006 - EU 012) are smoked meat ovens, and five ovens (EU 013 - EU 017) are prepared sausage ovens. Liquid smoke flavoring can be used in all twelve ovens, with emissions discharged to the atmosphere without control.



Five of the smoked meat ovens (EU 006 through EU 010) can also use natural wood smoke produced by two wood chip-burning natural smoke generators (EU 031 and EU 032) with emissions discharged to the atmosphere without control. Wood chips in the natural smoke generators are heated by an electric heating plate. Four of the prepared sausage ovens (EU 013 - 016) can also use smoke from three vapor smoke generators (EU 037 - 039), however the vapor smoke generators can only furnish smoke to three of the ovens at a time (smoke generator EU 039 is ducted to two of the ovens EU 015 and EU 016, and a duct damper is used to control smoke to either oven). The vapor smoke generators create smoke by heating wood chips on electric heat coils, and injection of steam into the smoke chamber. Emissions from these ovens are treated in 3 demisters prior to discharge to the atmosphere when using vapor smoke. Emissions from natural gas and smoke in all twelve process ovens are insignificant, except for natural wood smoke emissions from the five smoked meat ovens (actual CO emissions exceed the two ton-per-year threshold in Minn. R. 7007.1300, subp. 4.A). In addition, there are seventeen steam-heated dry sausage ovens that are not emission sources but are included in this discussion for descriptive purposes.

Emissions from four pre-cooked bacon lines (EU 018 - EU 021) and a bacon bits line (EU 029) are treated in demisters before discharge. Microwave energy is used in the pre-cooked bacon and bacon bit processes. Room air is vented to the atmosphere from the pre-cooked bacon area by the pre-cooked bacon oven room vent.

A 100 kW natural gas standby emergency generator (EU 078; insignificant activity) is vented to the atmosphere. EU 051 is composed of one or more temporary or permanent emergency reciprocating internal combustion engines with a combined total horsepower (hp) not to exceed 599 hp, and a single engine limit of 500 hp. These engines can be fueled by gasoline, natural gas, butane, propane, naphtha/kerosene, or diesel fuel.

The emissions from a series of rendering process units (EU 028) are directly treated in a venturi scrubber (CE 009), packed tower B (CE 022) and packed tower C (CE 023), and then in the rendering room air packed tower A (CE 008) before discharge through SV 026. Emissions can also be vented directly to the atmosphere after tower C (through bypass stack SV 027). Rendering process emissions not collected by the rendering process scrubbers from this rendering area are treated in rendering room air packed tower A before discharge through SV 026.

Emissions from a Scott bone meal dryer (EU 036) and a Duske blood dryer (EU 050) are vented to a venturi scrubber and packed tower E (CE 018 and CE 024, respectively), and then into the blood/bone room air packed tower F (CE 019) before discharge through SV 045. Emissions can also be vented directly to the atmosphere after tower E (through bypass stack SV 033). Process emissions not collected by the blood/bone process scrubbers from this blood/bone area are treated in blood/bone room air packed tower F before discharge through SV 045. A dock area venturi scrubber (CE 020) and packed tower D (CE 021) control odors from insignificant activities.

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

No changes are authorized by this permit action. However, recent insignificant modifications have been added to the delta permitting database and the emissions from the activities are accounted for to verify that total facility emissions remain below the NSR major source threshold.

#### **1.4 Description of All Amendments Issued Since the Issuance of the Last Total Facility Permit and Included in this Part 70 Permit Re-issuance**

<b>Permit Number and Issuance Date</b>	<b>Action Authorized</b>
No. 09900002-002 October 14, 1999	Minor amendment for addition of two natural gas boilers (EU 044 and EU 045) and inclusion of insignificant modifications
No. 09900002-003 May 8, 2000	Moderate amendment to modify bacon bits cook line
No. 09900002-004 February 12, 2002	Major amendment authorizing use of refined animal fat for boiler fuel
No. 09900002-005 August 20, 2002	Administrative amendment to extend deadline for submittal of dispersion modeling information
No. 09900002-006 July 24, 2003	Minor amendment authorizing installation of new blood dryer incorporated into major amendment authorizing use of temporary or permanent emergency reciprocating internal combustion engines and revising GP 001 boiler 12-month rolling sum NO <sub>x</sub> and SO <sub>2</sub> limits
No. 09900002-007 July 14, 2004	Major amendment to correct error in CE 018 pressure drop requirement and clarify applicability in permit No. 09900002-006 in GP 010

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

**Table 1. Total Facility Potential to Emit Summary**

	PM tpy	PM <sub>10</sub> tpy	SO <sub>2</sub> tpy	NO <sub>x</sub> tpy	CO tpy	VOC tpy	Pb tpy	Single HAP tpy	All HAPs tpy
Total Facility Limited Potential Emissions	192.5	186.2	236.0	224.2	225.1	91.0	0.06	2.51	3.37
Total Facility Actual Emissions (2002)	39.28	33.39	145.16	68.23	27.75	15.04	0.01	HAPs not reported in emission inventory	

**Table 2. Facility Classification**

Classification	Major/Affected Source	Synthetic Minor	Minor
PSD		PM, PM <sub>10</sub> , SO <sub>2</sub> , NO <sub>x</sub> , CO	VOC, Pb
Part 70 Permit Program	PM <sub>10</sub> , SO <sub>2</sub> , NO <sub>x</sub> , CO	VOC	
Part 63 NESHAP			single and total HAPs

## 2. Regulatory and/or Statutory Basis

### New Source Review

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

### Part 70 Permit Program

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

### New Source Performance Standards (NSPS)

Two natural gas/RAF fired boilers (EU 044 and EU 045) are subject to 40 CFR part 60 subpart Dc. Otherwise, no other New Source Performance Standards apply to the facility.

### National Emission Standards for Hazardous Air Pollutants (NESHAP)

The facility is a natural minor source under part 63 and therefore no NESHAPs apply.

### Minnesota State Rules

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

- Minn. R. 7011.0515 Standards of Performance for New Indirect 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

**Table 3. Regulatory Overview of Facility**

EU, GP, or SV	Applicable Regulations	Comments:
GP 001	Title I limit to avoid NSR	NO <sub>x</sub> and SO <sub>2</sub> limits to avoid major source classification under 40 CFR §52.21. EU 051 NO <sub>x</sub> emissions are included when calculating actual NO <sub>x</sub> emissions from GP 001.
	Minn. R. 7011.0515	Standards of Performance for New Indirect Heating Equipment (EU 001 - EU 005)

	40 CFR part 60 Subp. Dc	Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units
GP 003	Minn. R. 7011.0715	Standards of Performance for Post 1969 Industrial Process Equipment.
GP 005	Minn. R. 7011.0715	Standards of Performance for Post 1969 Industrial Process Equipment.
GP 010	Minn. R. 7011.0715	Standards of Performance for Post 1969 Industrial Process Equipment.
EU 027	Title I Condition to limit PM and PM <sub>10</sub> emissions  Minn. R. 7011.0715	Limit PM/PM <sub>10</sub> emissions to avoid total facility PM/PM <sub>10</sub> emissions from exceeding NSR major source threshold. Title I limits necessary because there are no emission factors for this process and PM emissions based on Industrial Process Equipment rule are excessive.  Standards of Performance for Post 1969 Industrial Process Equipment.
EU 028	Title I Condition to limit PM emissions  Minn. R. 7011.0715	Limit PM/PM <sub>10</sub> emissions to avoid total facility PM/PM <sub>10</sub> emissions from exceeding NSR major source threshold. Title I limits necessary because there are no emission factors for this process and PM emissions based on Industrial Process Equipment rule are excessive.  Standards of Performance for Post 1969 Industrial Process Equipment.
EU 051	Minn. R. 7011.2300	Standards of Performance for Internal Combustion Engines

### 3. Technical Information

- Compliance Assurance Monitoring (CAM) Applicability: None of the emissions sources with control equipment have pre-control emissions greater than the part 70 major source threshold. Therefore, CAM does not apply to any emission units at this facility.
- Added PM and opacity testing for No. 6 oil combustion in GP 001 for one of the smokehouses in GP 003. These requirements were inappropriately removed by permit action 004 and been re-inserted into the permit.
- Performance Testing: Requirements have been added for periodic testing of oil-fired boilers (EU 001 - EU 005) and the natural wood smoke meat ovens (EU 006 - EU 010) with smoke generated by the natural wood smoke generators (EU 031 and EU 032). This testing was previously required by PER 001, along with the submittal of testing frequency plans for these sources. After the required testing was completed and the testing frequency plans were

submitted the testing requirements were inadvertently removed from the permit by permit action PER 004, whereas they should have been revised based on the test frequency plans (a 5-year test frequency should have been added to the permit). This permit re-inserts these testing requirements. In addition, the permit indicates that the testing may be conducted prior to issuance of permit No. 09900002-008. This was requested by the Permittee so that the timeframe for completion of testing within 60 days after issuance of permit No. 09900002-008 can be met.

### **3.1 Emission Calculations**

See attached spreadsheet. Emissions from all insignificant activities are included to verify that insignificant activity emissions do not cause total facility limited emissions to exceed NSR major source thresholds. Note that no factors are available for PM, PM<sub>10</sub>, and VOC rendering process emissions. As a result, emissions were calculated based various limits including the Minnesota Industrial Process Equipment Rule (EU 028 rendering machinery), an assumed controlled concentration of 0.02 gr/dscf (EU 027 rendering room air), and the actual emission limit of 1.0 ton per year in Minn. R. 7007.1300, subp. 4 (EU 072/073 dock area).

### **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**

<b>Emission Unit or Group</b>	<b>Requirement (basis)</b>	<b>Additional Monitoring</b>	<b>Discussion</b>
GP 001 Boilers combusting No. 6 oil	Title I Conditions: to avoid NSR major source $\text{NO}_x \leq 180$ tpy and $\text{SO}_2 \leq 235$ tpy  Minn. R. 7011.0515 $\text{PM} \leq 0.4$ lb/mmBtu $\text{SO}_2 \leq 2.0$ lb/mmBtu Opacity $\leq 20$ % w/exceptions	Recordkeeping: Daily records of fuel usage for each permitted fuel type; Monthly calculations of emissions.  Periodic testing for PM and opacity, determination of sulfur content in fuel oil tanks after each delivery	Fuel usage records can be generated on a daily basis and $\text{NO}_x$ and $\text{SO}_2$ emissions calculated on a monthly basis. EU 051 $\text{NO}_x$ emissions are included in the calculation of monthly GP 001 $\text{NO}_x$ to provide the permittee with more operating flexibility for EU 051.  Past testing measured PM emissions at 12-20% of the limit and 0% opacity, so a 5-year test interval is acceptable.
GP 003 Natural Smoke Ovens	Minn. R. 7011.0715; $\text{PM} \leq 0.3$ gr/dscf Opacity $\leq 20$ %	Periodic testing for PM and opacity	Past testing measured PM emissions at 1.6% of the limit and 9% opacity, so 5 year test interval is acceptable.
GP 005 Precooked Processes	Minn. R. 7011.0715; $\text{PM} \leq 0.3$ gr/dscf Opacity $\leq 20$ %	Daily monitoring of mist eliminator pressure drop and water flow rate	Pressure drop and water flow rate are indicators of control equipment performance. Uncontrolled PM emissions are about 51% of IPER limit for each emission unit. Control equipment is 85% efficient. Therefore, this monitoring is appropriate and no PM testing is warranted.
GP 010 Bone and Blood dryers	Minn. R. 7011.0715; $\text{PM} \leq 0.3$ gr/dscf Opacity $\leq 20$ %	Daily monitoring of scrubber pressure drop and water flow rate	Pressure drop and water flow rate are indicators of control equipment performance. Product collected in fabric filter and exhaust then treated with scrubbers to control odorous condensible PM and VOC emissions. Uncontrolled PM emissions are about 91% of IPER limit for EU 036 and about 30% of IPER limit for EU 050. Control equipment is 90% efficient. Therefore, this monitoring is appropriate and no PM testing is warranted.

<b>Emission Unit or Group</b>	<b>Requirement (basis)</b>	<b>Additional Monitoring</b>	<b>Discussion</b>
EU 027 Rendering Room Air	Title I Conditions: to avoid NSR major source PM & PM <sub>10</sub> ≤ 8.38 lb/hr Minn. R. 7011.0715 Opacity ≤ 20 %	Daily monitoring of scrubber pressure drop and water flow rate	Pressure drop and water flow rate are indicators of control equipment performance. Emissions data based on arbitrary 0.02 gr/dscf PM concentration because no factors are available. However, rendering is not known as substantial PM source. Control equipment has been installed for odor control, and the monitoring is only designed to ensure proper odor control.
EU 028 Rendering Machinery	Title I Conditions: to avoid NSR major source PM & PM <sub>10</sub> ≤ 8.38 lb/hr Minn. R. 7011.0715 Opacity ≤ 20 %	Daily monitoring of scrubber pressure drop and water flow rate	Pressure drop and water flow rate are indicators of control equipment performance. Emissions data based on IPER because no factors are available. However, rendering is not known as a substantial PM source. Control equipment has been installed for odor control, and the monitoring is only designed to ensure proper odor control.
EU 051	SO <sub>2</sub> ≤ 0.5 lb/mmBtu Opacity ≤ 20%  Title I Condition: to avoid NSR major source for NO <sub>x</sub>	Diesel fuel certification for sulfur content  Daily fuel usage recordkeeping for calculating NO <sub>x</sub> for inclusion in GP 001 NO <sub>x</sub> calculation	No opacity monitoring due to emergency use-only of these units.

### **3.3 Insignificant Activities**

Insignificant activities are listed in the Appendix of the permit. Most are small gas-fired heating sources. Other insignificant activities include a few odor sources with condensible PM, a few material handling bin storage vent filters that collect valuable raw material/product (sugar, salt), several fuel oil storage tanks, and several miscellaneous sources. Due to the nature of these source (fuel limited to natural gas, scrubbers controlling condensable PM from odor sources such as the dock area, filters collecting usable materials, fuel oil storage tanks, and miscellaneous sources with no control equipment), no monitoring of these small emission sources is warranted. However, the potential emissions from these sources have been quantified (excluding the storage tanks due to their very low VOC PTE) and included in the facility emission calculations to verify that total facility limited PTE is less than the NSR major source thresholds.

### **3.4 Comments Received**

Public Notice Period: September 7, 2005 - October 6, 2005

EPA 45-day Review Period: September 7, 2005 - October 21, 2005

No comments were received.

### **4. Conclusion**

Based on the information provided by Hormel Foods Corporation, the MPCA has reasonable assurance that the operation of the emission facility, as described in the Air Emission Permit No. 09900002-008 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 (permit writer/engineer)  
   Greg Berger (enforcement)  
   Toni Volkmeier (peer reviewer)

Attachment:   Emissions Summary