

AIR EMISSION PERMIT NO. 05700006- 001

IS ISSUED TO

Lamb Weston/RDO Frozen

LAMB WESTON/RDO FROZEN
3704 Park Avenue South
Park Rapids, Hubbard County, MN 56470

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

Permit Type	Application Date
Total Facility Operating Permit	01/12/1995, Supplement 3/01/95

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

Issue Date: May 27, 2003

Expiration: May 27, 2008
All Title I Conditions do not expire.

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

for Sheryl 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. Certain requirements which have been determined not to apply are listed in Table A of this permit.

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:

Lamb Weston/RDO Frozen Company currently operates a potato processing plant in Park Rapids, Minnesota. It was constructed in 1980/81. The present ownership, a joint venture between Lamb Weston and RDO Frozen, purchased the plant in 1992. The plant produces frozen french fries with the main emission sources at the facility being four french fry fryers, and three boilers with the capacities of 25, 50, and 153 million BTU/hour.

The larger 153 million BTU/hour boiler is subject to federal New Source Performance Standards (NSPS) 40 CFR Part 60 Subpart Db. The two smaller boilers are combined together through one stack with the 153 million BTU/hour boiler. The NO_x CEM system is located on the exhaust from the large (Nebraska) boiler only.

TABLE A: LIMITS AND OTHER REQUIREMENTS

05/27/03

Facility Name: Lamb Weston/RDO Frozen

Permit Number: 05700006 - 001

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
AIR POLLUTION CONTROL EQUIPMENT AND FUGITIVE EMISSIONS CONTROL REQUIREMENTS	hdr
Air Pollution Control Equipment: Operate all pollution control equipment whenever the corresponding process equipment and emission units are operated, unless otherwise noted in Table A.	Minn. R. 7007.0800, subp. 2; Minn. R. 7007.0800, subp. 16(J)
Operation and Maintenance Plan: Retain at the stationary source an operation and maintenance plan for all air pollution control equipment. At a minimum, the O & M plan shall identify all air pollution control equipment and shall include a preventative maintenance program for that equipment, a description of (the minimum but not necessarily the only) corrective actions to be taken to restore the equipment to proper operation to meet applicable permit conditions, a description of the employee training program for proper operation and maintenance of the control equipment, and the records kept to demonstrate plan implementation.	Minn. R. 7007.0800, subp. 14 and Minn. R. 7007.0800, subp. 16(J)
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
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
MONITORING REQUIREMENTS	hdr
Monitoring Equipment Calibration: Annually calibrate all required monitoring equipment (any requirements applying to continuous emission monitors are listed separately in this permit).	Minn. R. 7007.0800, subp. 4(D)
Operation of Monitoring Equipment: Unless otherwise noted in Tables A, B, and/or C, monitoring a process or control equipment connected to that process is not necessary during periods when the process is shutdown, or during checks of the monitoring systems, such as calibration checks and zero and span adjustments. If monitoring records are required, they should reflect any such periods of process shutdown or checks of the monitoring system.	Minn. R. 7007.0800, subp. 4(D)
NOTIFICATIONS	hdr
Shutdown Notifications: Notify the Commissioner at least 24 hours in advance of a planned shutdown of any control equipment or process equipment if the shutdown would cause any increase in the emissions of any regulated air pollutant. If the owner or operator does not have advance knowledge of the shutdown, notification shall be made to the Commissioner as soon as possible after the shutdown. However, notification is not required in the circumstances outlined in Items A, B and C of Minn. R. 7019.1000, subp. 3. At the time of notification, the owner or operator shall inform the Commissioner of the cause of the shutdown and the estimated duration. The owner or operator shall notify the Commissioner when the shutdown is over.	Minn. R. 7019.1000, subp. 3
Breakdown Notifications: Notify the Commissioner within 24 hours of a breakdown of more than one hour duration of any control equipment or process equipment if the breakdown causes any increase in the emissions of any regulated air pollutant. The 24-hour time period starts when the breakdown was discovered or reasonably should have been discovered by the owner or operator. However, notification is not required in the circumstances outlined in Items A, B and C of Minn. R. 7019.1000, subp. 2. At the time of notification or as soon as possible thereafter, the owner or operator shall inform the Commissioner of the cause of the breakdown and the estimated duration. The owner or operator shall notify the Commissioner when the breakdown is over.	Minn. R. 7019.1000, subp. 2

TABLE A: LIMITS AND OTHER REQUIREMENTS

05/27/03

Facility Name: Lamb Weston/RDO Frozen

Permit Number: 05700006 - 001

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
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
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
RECORDKEEPING	hdr
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)
APPLICATIONS	hdr
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
MISCELLANEOUS	hdr
The Permittee shall comply with the General Conditions listed in Minn. R. 7007.0800, subp. 16.	Minn. R. 7007.0800, subp. 16
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)
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)
Emission Inventory Report: due 91 days after end of each calendar year following permit issuance (April 1). 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
The Permittee is required to submit a Risk Management Plan (RMP) under the federal rule, 40 CFR pt. 68. Each owner or operator of a stationary source, at which a regulated substance is present above a threshold quantity in a process, shall design and implement an accidental release prevention program. A complete RMP must be submitted to the RMP Reporting Center, PO Box 3346, Merrifield, VA 22116. RMP submittal information may be obtained at http://www.epa.gov/swercepp or by calling 1-800-424-9346. These requirements must be complied with no later than the latest of the following dates: (1) June 21, 1999; (2) Three years after the date on which a regulated substance is first listed under 40 CFR Section 68.130; or (3) The date on which a regulated substance is first present above a threshold quantity in a process.	40 CFR pt. 68
The facility currently uses ozone-depleting substances as defined in 40 CFR pt. 82. Sections 601-618 of the 1990 Clean Air Act Amendments and 40 CFR pt. 82 may apply to your facility. Read Sections 601-618 and 40 CFR pt. 82 to determine all the requirements that apply to your facility.	40 CFR pt. 82
Noise: The Permittee shall comply with the noise standards set forth in Minn. R. 7030.0010 to 7030.0080 at all times during the operation of any emission units. This is a state only requirement and is not enforceable by the EPA Administrator or citizens under the Clean Air Act.	Minn. R. 7030.0010 - 7030.0080
DESPERSION MODELING	hdr

TABLE A: LIMITS AND OTHER REQUIREMENTS

05/27/03

Facility Name: Lamb Weston/RDO Frozen

Permit Number: 05700006 - 001

Submittal due 1,096 days after permit issuance.. Submit modeling data as specified in MPCA guidance for Modeling Information Requests (for pollutant). 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. Dispersion modeling is required for SO2, and NOx.	Minn. R. 7007.0800, subp. 2
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TABLE A: LIMITS AND OTHER REQUIREMENTS

05/27/03

Facility Name: Lamb Weston/RDO Frozen

Permit Number: 05700006 - 001

Subject Item: GP 001 Boiler fuel oil use.**Associated Items:** EU 001 Nebraska Boiler

EU 002 Boiler DS-40

EU 003 Boiler D-34

SV 001 Boiler Stack

What to do	Why to do it
Sulfur Dioxide: less than or equal to 240 tons/year using 12-month Rolling Sum	Title I condition: limit to avoid classification as a major source under 40 CFR Section 52.21.
Daily records of fuel use: on each day of operation, the permittee shall calculate, record, and maintain a record of the distillate oil, biogas, and natural gas consumption.	Title I condition: recordkeeping for limit to avoid classification as a major source under 40 CFR Section 52.21.
Monthly calculation of SO ₂ emissions. By the 15th of the month, the permittee shall calculate and record the following: 1) The total consumption of each fuel for the previous calendar month using the daily usage records, and the sulfur dioxide emitted for that month. 2) The 12 month rolling sum of sulfur dioxide for the previous 12 month period by summing the monthly SO ₂ emissions for the previous 12 months.	Title I condition: recordkeeping for limit to avoid classification as a major source under 40 CFR Section 52.21.
Sulfur content of fuel: less than or equal to 0.5 percent by weight.	Title I condition: limit to avoid classification as a major source under 40 CFR Section 52.21.
Recordkeeping for sulfur content: the permittee shall obtain certification from the fuel oil supplier of the sulfur content of each load delivered showing that the oil complies with ASTM grade 1 or 2 distillate fuel oil. As an alternate, the permittee shall sample the oil delivered to determine the sulfur content, gross heating value, and density using ASTM approved laboratory analysis methods specifically stating the analytical procedure used for each parameter.	Title I condition: recordkeeping for limit to avoid classification as a major source under 40 CFR Section 52.21.

TABLE A: LIMITS AND OTHER REQUIREMENTS

05/27/03

Facility Name: Lamb Weston/RDO Frozen

Permit Number: 05700006 - 001

Subject Item: GP 002 Co-product Fryers

Associated Items: CE 002 Wet Scrubber

EU 006 Chopped & Formed Fryers

EU 010 Chopped& Formed Line 4

SV 003 Co-Product Fryers

What to do	Why to do it
Total Particulate Matter: less than or equal to 0.08 grains/dry standard cubic foot unless required to comply with a more stringent limit by Minn. R. 7011.0700 - 7011.0735.	Title I Condition: Most stringent, meets limit required by Minn. R. 7011.0700-7011.0715
Opacity: less than or equal to 20 percent opacity	Minn. R. 7011.0715, subp. 1(B)
OPERATIONAL AND MONITORING REQUIREMENTS	hdr
The Permittee shall operate and maintain the control equipment such that it achieves an overall control efficiency for total Particulate Matter: greater than or equal to 30 percent control efficiency	Minn. R. 7007.0800, subp. 14.
The Permittee shall operate and maintain the control equipment such that it achieves an overall capture and control efficiency for Particulate Matter < 10 micron: greater than or equal to 30 percent	Minn.R. 7007.0800, subp. 14.
Liquid Flow Rate: the water pressure range must be maintained between a minimum of 18 PSI, and a Maximum of 35 PSI, unless a new range is set pursuant to Minn. R. 7017.2025, subp. 3, based on the values recorded during the most recent MPCA approved performance test where compliance was demonstrated.	Minn. R. 7007.0800, subp. 14.
PERFORMANCE TESTING	Minn. R. ch. Minn. R. ch. 7017
Performance Test: due 90 days after Permit Issuance to measure total particulate matter emissions, only.	Minn. R. 7017.2020, subp. 1
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. Rs. 7017.2030, subp. 1-4, 7017.2018 and Minn. R. 7017.2035, subp. 1-2
Monitoring Equipment: The Permittee shall install and maintain the necessary monitoring equipment for measuring and recording liquid flow rate as required by this permit. The monitoring equipment must be installed, in use, and properly maintained when the Wet Scrubbers are in operation. Flow meters shall be installed to monitor the Wet Scrubbers flows not later than 90 days after this permit issuance.	Minn. R. 7007.0800, subp. 4.
Recordkeeping of liquid flow rate. The Permittee shall record once each operating day the flow rate including the time and date of the liquid flow rate reading and whether or not the recorded flow rate was within the range specified in this permit.	Minn. R. 7007.0800, subp. 5.
Corrective Actions: The Permittee shall take corrective action as soon as possible if any of the following occur: - visible emissions are observed that are adnormal or atypical; - the recorded flow rate is outside the required operating range; or - the wet scrubber or any of its components are found during the inspections to need repair. Corrective actions shall return the flow rate to within the permitted range and/or include completion of necessary repairs identified during the inspection, as applicable. Corrective actions include, but are not limited to, those outlined in the O & M Plan. The Permittee shall keep a record of the type and date of any corrective action taken.	Minn. R. 7007.0800, subp. 4, 5, 14.
Periodic Inspections: At least once per calendar quarter, or more frequently as required by the manufacturing specifications, the Permittee shall inspect the control equipment components. The Permittee shall maintain a written record of these inspections.	Minn. R. 7007.0800, subp. 4, 5, 14.

TABLE A: LIMITS AND OTHER REQUIREMENTS

05/27/03

Facility Name: Lamb Weston/RDO Frozen

Permit Number: 05700006 - 001

Subject Item: EU 001 Nebraska Boiler

Associated Items: GP 001 Boiler fuel oil use.

SV 001 Boiler Stack

What to do	Why to do it
EMISSION LIMITS	
Total Particulate Matter: less than or equal to 0.1 lbs/million Btu heat input when burning fuel oil alone or in combination with natural gas	40 CFR 60.43b(b)
The total particulate matter standard, and the opacity standard applies at all times except during periods of startup, shutdown or malfunction.	40 CFR 60.43b(g)
Sulfur Dioxide: less than or equal to 0.5 lb/million Btu heat input.	40 CFR 60.42b(a), 40 CFR 60.42b(e), 40 CFR 60.42b(g), 40 CFR 60.42b(j).
Sulfur Dioxide limitation applies at all times including start up, shutdown and malfunction.	40 CFR 60.42b(g)
Shall not cause to be discharged into the atmosphere any gases that exhibit greater than 20 percent opacity (6-minute average) except for one 6-minute period per hour of not more than 27 percent opacity.	40 CFR 60.43b(f)
Fuel types allowed: Distillate fuel oil, biogas, and natural gas are the only fuels allowed. Maintain daily record of distillate oil, biogas, and natural gas burned with sulfur content for each fuel usage.	Title I condition for fuel oils allowed.
Nitrogen Oxides: less than or equal to 0.1 lbs/million Btu heat input using 30-day Rolling Average when burning natural gas.	Title I Condition: limit to avoid classification as a major source under 40 CFR Section 52.21; most stringent, meets limit required by 40 CFR 60, Subp.Db.
Nitrogen Oxides: less than or equal to 0.2 lbs/million Btu heat input using 30-day Rolling Average when burning fuel oil.	Title I Condition: limit to avoid classification as a major source under 40 CFR Section 52.21; most stringent, meets limit required by 40 CFR 60, Subp.Db.
REPORTING	hdr
The 1-hour average NOx emission rates shall be expressed in lb/MMBTU heat input and shall be used to calculate the average emission rate. The 1-hour averages shall be calculated using the data points required under 40 CFR 60.13. At least 2 data points must be used to calculate each 1-hour average.	40CFR 60.48 b(d)
Record and maintain records of the amounts of each fuel combusted during each day.	40 CFR 60.49b(d)
Maintain records for each boiler operating day of (regarding NOx): calendar date, average hourly NOx (expressed as NO2) emission rate in lb/MMBtu measured or predicted, 30-day average NOx emission rates in lb/MMBTU calculated at the end of each boiler operating day from the measured or predicted hourly NOx emission rates for the preceding 30 boiler operating days, identification of the boiler operating days when the 30-day average NOx emission rates are in excess of the standards and the reasons for such excess emissions and a description of corrective actions taken, identification of the boiler operating days for which NOx data have not been obtained including reasons and a description of correction actions taken, identification of the times when emissions data have been excluded from the calculation and the reasons for excluding data, identification of the "F" factor used for calculation, method of determination, and type.	40 CFR 60.49b(g)
Submit quarterly report of information listed in 60.49b(g) and (k). Must be postmarked by the 30th day following the end of each calendar quarter.	40 CFR 60.49b(i) & (j)
When NOx data are not obtained because of CEM breakdowns, repairs, calibration checks, and zero and span adjustments, emission data will be obtained by using standby monitoring system Method 7, Method 7A, or other approved reference methods to provide emission data for a minimum of 75% of the operating hours in each operating day, in at least 22 out of 30 successive operating days.	Minn. R. 7007.0800, subp. 4.
Emission monitoring: the permittee shall use a NOx CEMS to measure NOx emissions.	40 CFR pt. 60, subp. Db.
QA Plan: Develop and implement a written quality assurance plan that covers each CEMS. The plan shall be on site and available for inspection within 30 days after monitor certification. The plan shall contain all of the information required by Minn. R. 7017.1170, subp. 2.	Minn. R. 7017.1170, subp. 2.
CEMS QA/QC: The owner or operator of an affected facility is subject to the performance specifications listed in Minn. R. 7017.1170, subp. 2, and shall operate, calibrate, and maintain each CEMS according to the QA/QC procedures in Minn. R. 7017, subp. 2 as amended and maintain a written QA/QC program available in a form suitable for inspection.	Minn. R. 7017.1170, subp. 2.

TABLE A: LIMITS AND OTHER REQUIREMENTS

05/27/03

Facility Name: Lamb Weston/RDO Frozen

Permit Number: 05700006 - 001

CEMS Relative Accuracy Test Audit (RATA): due before end of each calendar year following CEMS Certification Test. Follow the procedures in 40 CFR pt. 60, Appendix F.	Minn. R. 7017.1170, subp. 5
Relative Accuracy Test Audit (RATA) Notification: due 30 days before CEMS Relative Accuracy Test Audit (RATA).	Minn. R. 7017.1180, subp. 2
Relative Accuracy Test Audit (RATA) Results Summary: due 30 days after end of each calendar quarter in which the CEMS RATA was conducted.	Minn. R. 7017.1180, subp. 3
CEMS Daily Calibration Drift (CD) Test: The CD shall be quantified and recorded at zero (low level value between 0 and 20 percent of span value) and span (50 to 100 percent of span value) gas concentrations at least once daily, the span value for the monitor is 0 - 375ppm as approved in the QA Plan.	Minn. R. 7017.1170, subp. 3
Cylinder Gas Audit (CGA): due before end of each calendar half year following CEMS certification test. A CGA is not required during any calendar quarter in which a RATA was performed.	Minn. R. 7017.1170, subp. 4
Continuous Operation: CEMS must be operated and data recorded during all periods of emission unit operation including periods of emission unit start-up, shutdown, or malfunction except for periods of acceptable monitor downtime. This requirement applies whether or not a numerical emission limit applies during these periods. A CEMS must not be bypassed except in emergencies where failure to bypass would endanger human health, safety, or plant equipment. Acceptable monitor downtime includes reasonable periods as listed in Items A, B, C and D of Minn. R. 7017.1090, subp. 2.	40 CFR Section 60.13(e), Minn. R. 7017.1090, subp.
Cylinder Gas Audit (CGA) Results Summary: due 30 days after end of each calendar quarter following Cylinder Gas Audit (CGA).	Minn. R. 7017.1180, subp.1
OPACITY MONITORING REQUIREMENTS	hdr
Continuous Operation: COMS must be operated, when burning fuel oil, and data recorded during all periods of emission unit operation including periods of emission unit start-up, shutdown, or malfunction except for periods of acceptable monitor downtime. This requirement applies whether or not a numerical emission limit applies during these periods. A CEMS must not be bypassed except in emergencies where failure to bypass would endanger human health, safety, or plant equipment. Acceptable monitor downtime includes reasonable periods as listed in Items A, B, C and D of Minn. R. 7017.1090, subp. 2.	Minn. R. 7017.1090, subp. 1; 40 CFR Section 60.13(e)
COMS Daily Calibration Drift (CD) Check: The CD shall be quantified and recorded at zero (low-level) and upscale (high-level) opacity at least once daily. The COMS must be adjusted whenever the calibration drift (CD) exceeds twice the specification of PS-1 of 40 CFR 60, Appendix B.	Minn. R. 7017.1210, subp. 2; 40 CFR Section 60.13(d)
COMS Calibration Error Audit: due before end of each calendar half-year following Permit Issuance. Conduct three point calibration error audits at least 3 months apart but no greater than 8 months apart. Filter values used shall be as required under Minn. 7017.1210, Subpart 3.	Minn. R. 7017.1210, subp. 3
COMS Calibration Error Audit Results Summary: due 30 days after end of each calendar half-year following COMS Calibration Error Audit.	Minn. R. 7017.1220
All COMS shall complete a minimum of one cycle of sampling and analyzing for each successive 10-second period and one cycle of data for each successive 6-minute period.	Minn. R. 7017.1200, subp.
Recordkeeping: The owner or operator must retain records of all COMS monitoring data and support information for a period of five years from the date of the monitoring sample, measurement or report. Records shall be kept at the source.	Minn. R. 7017.1130
QA Plan Required: Develop and implement a written quality assurance plan which covers each COMS. The plan shall be on site and available for inspection within 30 days after monitor certification. The plan shall contain the written procedures listed in Minn. R. 7017.1210, subp. 1.	Minn. R. 7017.1210

TABLE A: LIMITS AND OTHER REQUIREMENTS

05/27/03

Facility Name: Lamb Weston/RDO Frozen

Permit Number: 05700006 - 001

Subject Item: EU 002 Boiler DS-40**Associated Items:** GP 001 Boiler fuel oil use.

SV 001 Boiler Stack

What to do	Why to do it
Total Particulate Matter: less than or equal to 0.1 lbs/million Btu heat input	Title I condition: limit to avoid classification as a major source under 40 CFR Section 52.21; most stringent, meets limit set by Minn. R. 7011.0515, subp. 1
Opacity: less than or equal to 20 percent opacity	Minn. R. 7011.0515, subp. 2
Sulfur Dioxide : less than or equal to 0.5 lbs/Million Btu heat input.	Title I condition: limit to avoid classification as a major source under 40 CFR Section 52.21; most stringent, meets limit set by Minn. R. 7011.0515
Fuel types allowed: Distillate fuel oil, biogas, and natural gas are the only fuels allowed.	Title I condition for fuel oils allowed.

TABLE A: LIMITS AND OTHER REQUIREMENTS

05/27/03

Facility Name: Lamb Weston/RDO Frozen

Permit Number: 05700006 - 001

Subject Item: EU 003 Boiler D-34**Associated Items:** GP 001 Boiler fuel oil use.

SV 001 Boiler Stack

What to do	Why to do it
Total Particulate Matter: less than or equal to 0.1 lbs/million Btu heat input	Title I condition: limit to avoid classification as a major source under 40 CFR Section 52.21; most stringent, meets limit set by Minn. R. 7011.0515, subp. 1
Opacity: less than or equal to 20 percent opacity	Minn. R. 7011.0515, subp. 2
Sulfur Dioxide : less than or equal to 0.5 lbs/Million Btu heat input.	Title I condition: limit to avoid classification as a major source under 40 CFR Section 52.21; most stringent, meets limit set by Minn. R. 7011.0515
Fuel types allowed: Distillate fuel oil, biogas, and natural gas are the only fuels allowed.	Title I condition for fuel oils allowed.

TABLE A: LIMITS AND OTHER REQUIREMENTS

05/27/03

Facility Name: Lamb Weston/RDO Frozen

Permit Number: 05700006 - 001

Subject Item: EU 005 Potato Frying**Associated Items:** CE 001 Wet Scrubber

SV 002 Line 2 Fryer

What to do	Why to do it
Total Particulate Matter: less than or equal to 0.1 grains/dry standard cubic foot unless required to comply with a more stringent limit by Minn. R. 7011.0700 - 7011.0735.	Minn. R 7011.0700-7011.0715
Opacity: less than or equal to 20 percent opacity	Minn. R. 7011.0715, subp. 1(B)
OPERATIONAL AND MONITORING REQUIREMENTS	hdr
The Permittee shall operate and maintain the control equipment such that it achieves an overall control efficiency for Total Particulate Matter: greater than or equal to 30 percent control efficiency	Minn. R. 7007.0800, subp. 14.
The Permittee shall operate and maintain the control equipment such that it achieves an overall capture and control efficiency for Particulate Matter < 10 micron: greater than or equal to 30 percent	Minn.R. 7007.0800, subp. 14.
Liquid Flow Rate: the water pressure range must be maintained at a minimum of 18 PSI, and a maximum 22 PSI, unless a new range is set pursuant to Minn. R. 7017.2025, subp. 3, based on the values recorded during the most recent MPCA approved performance test where compliance was demonstrated.	Minn. R. 7007.0800, subp. 14.
Monitoring Equipment: The Permittee shall install and maintain the necessary monitoring equipment for measuring and recording liquid flow rate as required by this permit. The monitoring equipment must be installed, in use, and properly maintained when the Wet Scrubbers are in operation. Flow meters shall be installed to monitor the Wet Scrubbers flows not later than 90 days after this permit issuance.	Minn. R. 7007.0800, subp. 4.
Recordkeeping of liquid flow rate. The Permittee shall record once each operating day the flow rate including the time and date of the liquid flow rate reading and whether or not the recorded flow rate was within the range specified in this permit.	Minn. R. 7007.0800, subp. 5.
Corrective Actions: The Permittee shall take corrective action as soon as possible if any of the following occur: - visible emissions are observed that are abnormal or atypical; - the recorded flow rate is outside the required operating range; or - the wet scrubber or any of its components are found during the inspections to need repair. Corrective actions shall return the flow rate to within the permitted range and/or include completion of necessary repairs identified during the inspection, as applicable. Corrective actions include, but are not limited to, those outlined in the O & M Plan. The Permittee shall keep a record of the type and date of any corrective action taken.	Minn. R. 7007.0800, subp. 4, 5, 14.
Periodic Inspections: At least once per calendar quarter, or more frequently as required by the manufacturing specifications, the Permittee shall inspect the control equipment components. The Permittee shall maintain a written record of these inspections.	Minn. R. 7007.0800, subp. 4, 5, 14.

TABLE A: LIMITS AND OTHER REQUIREMENTS

05/27/03

Facility Name: Lamb Weston/RDO Frozen

Permit Number: 05700006 - 001

Subject Item: EU 009 Line 1 Fryer**Associated Items:** CE 003 Wet Scrubber

SV 004 Line 1 Fryer (1994)

What to do	Why to do it
Total Particulate Matter: less than or equal to 0.1 grains/dry standard cubic foot unless required to comply with a more stringent limit by Minn. R. 7011.0700 - 7011.0735	Title I Condition: Most stringent, meets limit required by Minn. R 7011.0700-7011.0735
Opacity: less than or equal to 20 percent opacity	Minn. R. 7011.0715, subp. 1(B)
OPERATIONAL AND MONITORING REQUIREMENTS	hdr
The Permittee shall operate and maintain the control equipment such that it achieves an overall control efficiency for Total Particulate Matter: greater than or equal to 30 percent control efficiency	Minn. R. 7007.0800, subp. 14.
The Permittee shall operate and maintain the control equipment such that it achieves an overall capture and control efficiency for Particulate Matter < 10 micron: greater than or equal to 30 percent	Minn.R. 7007.0800, subp. 14.
Liquid Flow Rate: the water pressure range must be maintained between a minimum of 16 PSI, and a maximum of 24 PSI, unless a new range is set pursuant to Minn. R. 7017.2025, subp. 3, based on the values recorded during the most recent MPCA approved performance test where compliance was demonstrated.	Minn. R. 7007.0800, subp. 14.
Monitoring Equipment: The Permittee shall install and maintain the necessary monitoring equipment for measuring and recording liquid flow rate as required by this permit. The monitoring equipment must be installed, in use, and properly maintained when CE003 Wet Scrubber is in operation.	Minn. R. 7007.0800, subp. 4.
Recordkeeping of liquid flow rate. The Permittee shall record once each operating day the flow rate including the time and date of the liquid flow rate reading and whether or not the recorded flow rate was within the range specified in this permit.	Minn. R. 7007.0800, subp. 5.
Corrective Actions: The Permittee shall take corrective action as soon as possible if any of the following occur: - visible emissions are observed that are abnormal or atypical; - the recorded flow rate is outside the required operating range; or - the wet scrubber or any of its components are found during the inspections to need repair. Corrective actions shall return the flow rate to within the permitted range and/or include completion of necessary repairs identified during the inspection, as applicable. Corrective actions include, but are not limited to, those outlined in the O & M Plan. The Permittee shall keep a record of the type and date of any corrective action taken.	Minn. R. 7007.0800, subp. 4, 5, 14.
Periodic Inspections: At least once per calendar quarter, or more frequently as required by the manufacturing specifications, the Permittee shall inspect the control equipment components. The Permittee shall maintain a written record of these inspections.	Minn. R. 7007.0800, subp. 4, 5, 14.

TABLE B: SUBMITTALS

05/27/03

Facility Name: Lamb Weston/RDO Frozen
Permit Number: 05700006 - 001

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

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

Send any application for a permit or permit amendment to:

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

05/27/03

Facility Name: Lamb Weston/RDO Frozen
Permit Number: 05700006 - 001

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

TABLE B: RECURRENT SUBMITTALS

05/27/03

Facility Name: Lamb Weston/RDO Frozen

Permit Number: 05700006 - 001

What to send	When to send	Portion of Facility Affected
Excess Emissions/Downtime Reports (EER's)	due 30 days after end of each calendar quarter following Initial Startup of the Monitor (Submit Deviations Reporting Form DRF-1 as amended).. The EER shall indicate all periods of monitor bypass and all periods of exceedances of the limit including exceedances allowed by an applicable standard, i.e. during startup, shutdown, and malfunctions.	EU001
Fuel Supplier Certification	due 30 days after end of each quarter following Fuel Usage Report Monitoring for Sulfur Dioxide: fuel oil supplier certification that fuel oil delivered contains less than 0.5 percent sulfur by weight.	EU001
Fuel Supplier Certification	due 30 days after end of each quarter following Fuel Usage Report Monitoring for Sulfur Dioxide: fuel oil supplier certification that fuel oil delivered contains less than 0.5 percent sulfur by weight.	EU002
Fuel Supplier Certification	due 30 days after end of each quarter following Fuel Usage Report Monitoring for Sulfur Dioxide: fuel oil supplier certification that fuel oil delivered contains less than 0.5 percent sulfur by weight.	EU003
Semiannual Deviations Report	due 30 days after end of each calendar half-year following Permit Issuance	Total Facility
Compliance Certification	due 31 days after end of each calendar year following Permit Issuance (for the previous calendar year). To be submitted on a form approved by the Commissioner, both to the Commissioner and to the US EPA regional office in Chicago. This report covers all deviations experienced during the calendar year.	Total Facility

APPENDIX MATERIAL

Facility Name: Lamb Weston/RDO Frozen Foods

Permit Number: 05700006-001

1.0 Insignificant Activities

The Permittee listed several current insignificant activities in the permit application and supplemental submittals, as noted in Table 1. The permit is required to include periodic monitoring for all emissions units, including insignificant activities, per EPA guidance. The insignificant activities at this Facility are only subject to general applicable requirements. Using the criteria outlined earlier in this TSD, the following table documents the justification why no additional periodic monitoring is necessary for the current insignificant activities, and likely future ones, that might be located at this site.

Table 1. Insignificant Activities

Insignificant Activity	Currentl y on site? (Y/N)	General Applicable Emission limit	Discussion
Pressure gauges, and pumping lines	Y	(Minn.R. 7011.0100)	No significant emissions from these units.
Emissions from laboratory operations, as defined in Minn. R. 7007.1300, subp. 3(G)	Y	PM, variable depending on airflow Opacity \leq 20% (Minn. R. 7011.0715)	Bacteriological lab for product, and waste water analyses. These are very small, intermittent, bench-top operations that typically do not even have any emissions. It is highly unlikely that they could violate the applicable requirement.
Brazing, soldering or welding equipment	Y	PM, variable depending on airflow Opacity < 20% (Minn. R. 7011.0715)	Electric welders, metal inert gas, and tungsten inert gas welders in maintenance shop. For these units, based on EPA published emissions factors, it is highly unlikely that they could violate the applicable requirement. In addition, these units are operated and vented inside a building, so testing for PM or opacity is not feasible.
Waste Cooking Oil Tank.	Y	PM, PM-10, and VOCs. (Minn. R. 7011.1500)	Two tanks, outside, aboveground, emissions less than 2000 pounds per year VOCs, PM, and PM-10
Potato Receiving, Sizing, Sorting, and Storing.	Y	PM, PM-10. (Minn. R. 7011.0715)	Emissions less than 2000 pounds per year PM and PM-10. All activities are conducted inside the building. Open doors in truck unloading area and building ventilation allow for minimal amounts of dust to be emitted. The dust is from dirt on the potatoes which is knocked off in unloading, and transfer of dry potatoes.

Insignificant Activity	Currentl y on site? (Y/N)	General Applicable Emission limit	Discussion
Natural Gas Fired Air Make-up unit.	Y	Minn. R. 7007. 1300	4.4 Million BTU/ Hr. Maximum. Make-up air requires heating in the winter months.
Methane Gas Flare.	Y	Methane not being burned in existing boiler is burned in the Flare (Minn. R. 7011.0100)	Methane gas from the anerobic reactor that is not combusted in the Boiler is burned at the Flare.

TECHNICAL SUPPORT DOCUMENT
For
DRAFT AIR EMISSION PERMIT NO. 05700006-001

This Technical Support Document (TSD) 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 and Operator Address and Phone Number (list both if different)	Facility Address (SIC Code: 2099)
Owner: Lamb Weston/RDO Frozen P. O. Box 552 Highway 71 South Park Rapids, MN 56470 (218) 732-2106	3704 Park Avenue South Park Rapids Hubbard County

1.2. Description of the facility

Lamb Weston RDO Frozen currently operates a potato processing plant in Park Rapids, Minnesota. The plant was constructed in 1981, and the present owner Lamb Weston/RDO Frozen purchased the plant in 1992 for the production of frozen french fries.

The main emission sources at the facility consist of 4 fryers and 3 boilers which supply steam to the frozen french fry processing plant. The boilers can burn distillate oil, and natural gas with heating capacities of 25, 50, and 153 million BTU's/hour. The related pollution control equipment consist of wet scrubbers. The largest boiler is subject to the Federal New Source Performance Standards, 40 CFR pt. 60 Subpart Db. The other boilers and fryers are subject to Minnesota Standards of Performance.

1.3 Description of any changes allowed with this permit issuance

This permit allows for the operation of 3 boilers, and 4 fryers. The boilers will burn very low sulfur oil. The fryers pollution control for emissions are wet scrubbers. There is no additional pollution control equipment needed at this time.

1.4 Description of all amendments issued since the issuance of the last total facility permit and to be included in the Part 70 Permit.

Permit Number and Issuance Date	Action Authorized
1771-89-OT-2 June 1, 1989	Total facility operating permit.
1771-89-2 July 27, 1994	Amendment No. 1 authorizes installation and operation of a third boiler, a third fryer line, and a wet scrubber.
05700006-003 December 12, 1994	Administrative amendment No.1 to extend date for submitting CEM/QA plan, by 120 days.
05700006-005 September 11, 1996	Amendment No. 2 authorizes operation using distillate oil, residual oil, natural gas, and installation of a wet scrubber.
05700006-006 June 6, 1997	Amendment No. 3, sets emission limits for stacks 002,003,and004
05700006-007 December 17, 1997	Amendment No. 4 authorizes the installation and operation of an additional co-products fryer line.
05700006-008 December 3, 2001	Amendment No. 1, authorizes the usage of monthly calculations for SO ₂ limits, and the combustion of waste gases.

1.5. Facility Emissions:

Table 1. Total Facility Potential to Emit Summary:

Item #	Stack #	Emission Unit Description	PM tpy	PM ₁₀ tpy	SO ₂ tpy	NO _x tpy	CO tpy	VOC tpy	All HAPs tpy
GP 1	001	Group – boiler fuel oil limit			245				
GP2		EU006, EU010	36.2	36.2					
EU1	001	Nebraska Boiler	67.0	14.9		134	53.6	3.5	2.48
EU2	001	Boiler DS-40	21.9	4.76		29.1	17.5	1.1	.008
EU3	001	Boiler D-34	11.0			10.4	8.8	0.55	.004
EU5		Potato Fryer	33.5	33.5					
EU9		Potato Fryer	50.25	50.25					

	PM tpy	PM ₁₀ tpy	SO ₂ tpy	NO _x tpy	CO tpy	VOC tpy	All HAPs tpy
Total Facility Limited Potential Emissions*	219.9	139.6	245	174	79.9	5.15	2.49
Total Facility Actual Emissions*	179.1	38.3	1.48	38.8	36.9	4.8	

Table 2. Facility(TF) and Permit Classification

Classification (put x in appropriate box)	Major/Affected Source	*Synthetic Minor	*Minor
PSD (list pollutant)	None	SO ₂	CO, VOC
NAAR (list pollutant)	NA	NA	NA
Part 70 Permit Program (list pollutant)	SO ₂ , NO _x , PM ₁₀		CO, VOC, HAP

* Refers to potential emissions that are less than those specified as major by 40 CFR § 52.21, 40 CFR pt. 51 Appendix S, and 40 CFR pt. 70.

2. Regulatory and/or Statutory Basis

Summary Regulatory and/or Statutory Basis of the Emission or operational Limit

Regulatory Overview of Facility

GP001	Title I Conditions: Limit to avoid classification as a major source under PSD. 40 CFR § 52.21.	Limits emissions of SO ₂ by limiting the quantity of distillate oil and sulfur content to limit sulfur dioxide emission to less than 250 tons/year under 40 CFR § 52.21 Periodic Monitoring: is daily recordkeeping of amount of fuel used and monthly calculation of a 12-month rolling sum, and fuel sampling.
GP002	Minn. R. 7011.0700-7011.0715	Limits emissions of PM, and opacity; Periodic Monitoring: Monitoring the operational parameters of the wet scrubber, water flows, pressure, etc.
EU001	40 CFR § 60.43b(b)	Limits emissions of PM; also limits potential-to-emit PM so that the entire source is not a major source under 40 CFR § 52.21. Periodic Monitoring: none since this unit only burns natural gas, biogas, or distillate fuel oil.

	40 CFR § 60.43b(b)	Limits emission of sulfur dioxide: Use fuel oil supplier certification.
	Title I Condition:	Limits emission of NO _x : to limit total source wide emissions to less than 250 tons per year. Periodic Monitoring: CEM for NO _x , a span value of 0 to 375 parts per million is used due to the lower emission limit for NO _x .
EU002	Title I Conditions for sulfur dioxide and PM, Minn. R. 7011.0515, and subp 1.	EU002 is not subject to Subpart Db, but the owner proposes to meet the same limits in order to limit emissions to less than the PSD major source threshold; these limits are more stringent than required by Minnesota Rules alone. Periodic Monitoring: none since this unit only burns natural gas or distillate fuel oil.
EU 003	Same as E002	Same as EU002
EU005	Minn. R. 7011.0700-7011.0715	Limits emissions of PM, and opacity: Periodic Monitoring: Monitoring the operational parameters of the wet scrubber, water flows, pressure, etc.
EU009	Minn. R. 7011.0700-7011.0715	Limits emissions of PM, and opacity: Periodic Monitoring: Monitoring the operational parameters of the wet scrubber, water flows, pressure, etc.

3. Technical Information

Minnesota Performance Standards: The emission units, except EU001 are subject to Minnesota Performance Standards.

Boiler No. 1 (1996) is subject to Federal New Source Performance Standards, and Boilers 2, and 3 (1980) are existing boilers, all three boilers are capable of burning distillate oil, and natural gas. The boilers are limited to burning natural gas, and distillate oil. This is not considered a modification as is specified by 40 CFR § 52.21 (b)(2)(I).

Emission calculations.

Criteria Pollutant Potential Emissions Calculations:

1. Group 001

SO₂: = **245 tpy** (as an established group limit)

2. Group 002

Potato Fryers EU006 and EU010

PM: = **36.2 tpy** = 0.08 gr/dscf * 12,446cfm * (460+68)/460+190) * 1 lb/7,000gr *
60min/hr * 8760hrs/yr * 1ton/2,000lbs

PM₁₀: = **36.2 tpy** = PM_{10f} + PM_{10c} = PM

3. Boiler EU001

Total PM less than or equal to 0.1 lbs/million Btu heat input when burning fuel oil alone or in combination with natural gas.

Maximum Rated Boiler Capacity: 152, 685, 400 BTU/hr

Heat value: 1,050 BTU/cf Natural gas

140,000 BTU/gal Distillate Oil

Calculated Emissions:

PM: = **67.0 tpy** = 0.1 lbs/10E+06 BTU * 153 MBTU/hr * 8,760 hrs/yr * 1 ton/2,000 lbs

PM₁₀: = **14.9 tpy** = PM_{10f} + PM_{10c} = (2lbs/1,000gals + 1.3lbs/1,000gals) * 1,032gals/hr
* 8,760hrs * 1ton/2,000lbs (Distillate oil)

$$PM_{10}: = \underline{4.85 \text{ tpy}} = PM_{10f} + PM_{10c} = (1.9\text{lbs}/10\text{E}+06\text{scf} + 5.7\text{lbs}/10\text{E}+06\text{scf}) * 145,700\text{cuft}/\text{hr} \\ * 8,760\text{hrs}/\text{yr} * 1\text{ton}/2,000\text{lbs} \text{ (Natural gas)}$$

SO₂: **Group limit.**

$$NO_X: \underline{134.0 \text{ tpy}} = 0.2 \text{ lb}/10\text{E}+06 \text{ BTU} * 153\text{MBTU}/\text{hr} * 8,760\text{hrs}/\text{yr} * 1 \text{ ton}/2,000 \text{ lbs}$$

$$CO: \underline{53.6 \text{ tpy}} = 84 \text{ lbs}/10\text{E}+06 * 145,700 \text{ cu ft}/\text{hr} * 8,760\text{hrs} * 1 \text{ ton}/2,000 \text{ lbs} \\ \text{(Natural Gas)}$$

$$\underline{22.6 \text{ tpy}} = 5\text{lbs}/10\text{E}+3\text{gals} * 1,032 \text{ gals}/\text{hr} * 8,760 * 1 \text{ ton}/2,000\text{lbs} \text{ (Distillate oil)}$$

$$VOC: \underline{3.5 \text{ tpy}} = 5.5 \text{ lbs}/10\text{E}+06\text{cu ft} * 145,700\text{cu ft}/\text{hr} * 8,760 \text{ hrs} * 1 \text{ ton}/2,000 \text{ lbs (Oil)}$$

4. Boiler EU002

Maximum Rated Boiler Capacity: 50,000,000 BTU/hr

$$PM: \underline{21.9 \text{ tpy}} = 0.1 \text{ lbs}/10\text{E}+06 * 50 \text{ MBTU}/\text{hr} * 8,760 \text{ hrs}/\text{yr} * 1 \text{ ton}/2,000 \text{ lbs}$$

$$PM_{10}: = \underline{4.76 \text{ tpy}} = PM_{10f} + PM_{10c} = (2\text{lbs}/1,000\text{gals}/\text{hr} + 1.3\text{lbs}/1,000\text{gals}/\text{hr}) 333\text{gals}/\text{hr} \\ * 333\text{gals}/\text{hr} * 1\text{ton}/2,000\text{lbs} \text{ (Distillate Oil)}$$

$$\underline{1.58 \text{ tpy}} = PM_f + PM_c = (7.6 \text{ lbs}/10\text{E}+06) * 47,000\text{cuft}/\text{hr} * 8,760\text{hrs}/\text{yr} \\ * 1\text{ton}/2,000\text{lbs} \text{ (Natural gas)}$$

SO₂: **Group Limit established**

$$Nox: \underline{20.8 \text{ tpy}} = 100\text{lbs}/10\text{E}+06 \text{ cuft} * 47,600 \text{ cuft}/\text{hr} * 8,760\text{hrs}/\text{yr} * 1\text{ton}/2,000\text{lbs} \text{ Natural Gas}$$

$$\underline{29.1 \text{ tpy}} = 20\text{lb}/10\text{E}+03 \text{ gals} * 333\text{gals}/\text{hr} * 8,760\text{hrs}/\text{yr} * 1\text{ton}/2,000\text{lbs} \text{ (Distillate oil)}$$

$$CO: \underline{17.5 \text{ tpy}} = 84\text{lbs}/10\text{E}+06 \text{ cuft} * 47,600 \text{ cuft}/\text{hr} * 8,760\text{hrs}/\text{yr} * 1\text{ton}/2,000\text{lbs} \text{ (Natural gas)}$$

$$\underline{7.3 \text{ tpy}} = 5\text{lbs}/10\text{E}+03 * 333\text{gals}/\text{hr} * 8,760\text{hrs}/\text{yr} * 1\text{ton}/2,000\text{lbs} \text{ (Distillate oil)}$$

$$VOC: \underline{1.1 \text{ tpy}} = 5.5\text{lbs}/10\text{E}+06\text{cuft} * 47,600\text{cuft}/\text{hr} * 8,760\text{hrs}/\text{yr} * 1\text{ton}/2,000\text{lbs} \text{ (Natural gas)}$$

$$\underline{0.291 \text{ tpy}} = 0.20\text{lbs}/10\text{E}+06\text{gals} * 333\text{gals}/\text{hr} * 8,760\text{hrs}/\text{yr} * 1\text{ton}/2,000\text{lbs} \text{ (Distillate oil)}$$

5. Boiler EU003

Maximum Rated Capacity: 25, 000, 000 BTU/hr

$$\text{PM:} = \underline{\mathbf{11.0 \text{ tpy}}} = 1/2 (0.1 \text{ lbs}/10\text{E}+06 * 25 \text{ MBTU/hr} * 8,760 \text{ hrs/yr} * 1 \text{ ton}/2,000 \text{ lbs})$$

(Based on AP 42 factors distillate oil emissions are greater than Natural gas emissions)

$$\text{PM}_{10}: = \underline{\mathbf{2.38 \text{ tpy}}} = 1/2 \text{ EU002 (PMf = PMc) (Distillate oil)}$$

$$\underline{\mathbf{0.79 \text{ tpy}}} = 1/2 \text{ EU002 (PMf + PMc) (Natural gas)}$$

$$\text{SO}_2: = \underline{\mathbf{\text{Group Limit established}}}$$

$$\text{NO}_x: = \underline{\mathbf{10.4 \text{ tpy}}}$$

$$\text{CO:} = \underline{\mathbf{8.8 \text{ tpy}}}$$

$$\text{VOC:} = \underline{\mathbf{0.55 \text{ tpy}}} (\text{Natural gas})$$

$$= \underline{\mathbf{0.145 \text{ tpy}}} (\text{Distillate oil})$$

6. Potato Fryer EU005

Stack Vent 003 flow rate @ 9,200 cfm @ 190 degrees Fahrenheit

$$\text{PM: Allowable } \underline{\mathbf{33.5 \text{ tpy}}} = 0.1 \text{ grdscf} * 9,200\text{cfm} * 460 + 68/460 + 190 * 1\text{lb}/7,000\text{gr} \\ * 60\text{min/hr} * 8760\text{hrs/yr} * 1\text{ton}/2,000\text{lbs}$$

$$\text{PM}_{10}: = \underline{\mathbf{33.5 \text{ tpy}}} \text{ PM}_{10\text{f}} + \text{PM}_{10\text{c}} = \text{PM}$$

7. Potato Fryer EU009

$$\text{PM:} = \underline{\mathbf{50.25 \text{ tpy}}} = 0.1 \text{ gr/cuft} * (13,800\text{cfm}/\text{m} @ 80 \text{ degree F}) * (460 = 68/460 + 80) \\ * 1 \text{ lb}/7,000\text{gr} * 60\text{min/hr} * 8,760\text{hrs/yr} * 1 \text{ ton}/2,000\text{lbs}$$

$$\text{PM}_{10}: = \underline{\mathbf{50.25 \text{ tpy}}} = \text{PM}_{10\text{f}} + \text{PM}_{10\text{c}} = \text{PM}$$

Hazardous Air Pollutant Emission Calculations: Distillate Oil

<u>Pollutant</u>	Factor	BTU/hr	hr/yr	ton/lbs
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Arsenic	4 lbs/10E +12 BTU
<u>0.026 tpy</u> =	4lbs/10E+12 BTU * 153+06BTU/hr * 8,760hr /yr * 1 ton/ 2,000 lbs
Beryllium	3
Cadmium	3
Manganese	6
POM	0.0033
Chromium	3
Copper	6
Lead	9
Mercury	3
Nichel	3
Selenium	15
Formaldehyde	0.035-0.061
Total 3 boilers:	55.06lbs/10E+12BTU * 228/10E+06/hr * 8,760hrs/yr * 1ton/2,000lbs
Total HAPS =	<u>0.055 tpy</u>

4. Conclusion

Based on the information provided by the Lamb Weston/RDO Frozen Foods, Inc. the MPCA has reasonable assurance that the proposed operation of the emission facility, as described in the Air Emission Permit No. 05700006-001, and this TSD, will not cause or contribute to a violation of applicable federal regulations and Minnesota Rules.

Staff Members on Permit Team:

Dave Beil, Cary Hernandez, Frederick Jenness, Carolina Schutt, Supervisor

Attachment: CD-01 Forms
Emission calculations
Others specified in section 3
Insignificant Activities