

**AIR EMISSION PERMIT NO. 03100001- 002
IS ISSUED TO**

LTV Steel Mining Company

LTV Steel Mining - Schroeder

P.O. Box 64

Schroeder, Cook County, Minnesota 55613

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 | June 14, 1995 |
| Major Amendment | November 30, 1998 |

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 and with all general conditions listed in Minn. R. pt. 7007.0800, subp. 16, [and all standard permit requirements listed in 40 CFR § 70.6\(a\)](#), which are incorporated by reference. Any changes or modifications to the stationary source must be performed in compliance with Minn. R. pts. 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

Issue Date: April 7, 1999

Expiration: April 7, 2004

All Title I Conditions do not expire.

Michael J. Sandusky
Division Manager
Air Quality Division

for Karen A. Struders
Commissioner
Minnesota Pollution Control Agency

BAB:yma

TABLE OF CONTENTS

Notice to the Permittee

Permit Shield

Facility Description

Table A: Limits and Other Requirements

Table B: Submittals

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 rule 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. Any requirements which have been determined not to apply are listed in Table A of this permit.

The permit shield, however does not apply to: Minn. R. ch. 7030 (Noise Pollution Control).

FACILITY DESCRIPTION:

LTV Steel Mining Company (LTVSMC) operates a coal-fired steam powered electrical energy generating station and loading terminal at its Taconite Harbor facility near Schroeder, Cook County, Minnesota. The three tangentially fired coal boilers at the facility produce steam which is used to generate electricity. The vast majority of the electricity produced is used to power LTVSMC's taconite ore processing facility in Hoyt Lakes, Minnesota. A small portion of the electricity produced is sold. The amount of electricity sold is small enough as to exempt the facility from the Title IV Acid Rain permitting program.

The coal burned at the facility is delivered to the facility by boat and unloaded and conveyed to a coal surge pile via a series of conveyors. The conveyor system can also be used to convey coarse aggregate materials, such as fluxstone or coal, into railcars. The coal is transferred directly from the coal surge pile by scraper or dozer to the boiler house building, pulverized, and fed into the boilers. Coal is also transferred to a coal stockpile for long term storage for use during the nonshipping season. The ash generated by the boilers is pneumatically conveyed to the ash collection silo. The ash is currently mixed with water and taken to an approved ash disposal site. However LTVSMC is proceeding with the construction of a new dry ash handling system that will be operational in the spring of 1999. This new system will allow the facility to sell its flyash and is currently studying beneficial reuse applications for its bottom ash.

The three boilers are equipped with distillate oil burners that are used when a boiler is started. The burners fire only enough oil to heat the boiler sufficiently to allow coal firing to begin. The use of distillate oil in the boilers is for startup purposes only, not for backup fuel use.

Taconite pellets, pellet chips, and iron ore shipped by railcar from the Hoyt Lakes facility are unloaded into a number of storage bins to await loading onto boats. During the shipping season, these products are then conveyed from the storage bins into the boats.

The facility previously maintained and operated four large petroleum storage tanks and then later leased the tanks out to a marine refueling company. Currently all four tanks are decommissioned. One still contains residual fuel oil, one has been cleaned for use as a flyash storage bin, and two have been removed completely.

The facility also operates a heating boiler, a cold start generator, and an emergency fire pump. The heating boiler is used to provide heat to the facility buildings during the time periods when all three main boilers are shut down. The cold start generator is used to restart the main boilers after time periods when all three main boilers are shut down and energy is not available from a local utility. The emergency fire pump is operated for routine testing and during emergency situations.

Amendment No. 1 to the Title V Permit:

This amendment, Amendment No. 1 to the Title V permit, is for the discontinuing of the total suspended particulate (TSP) ambient air quality monitors the facility operates. The original Title V permit (permit no. 03100001-001 issued on May 19, 1997) had a condition that allowed for the discontinuation after one more year of continued ambient compliance shown by the monitors. The one more year of continued compliance was shown and the Permittee has applied for the permit change.

LTVSMC Steel began ambient air monitoring at the time the plant started back up in 1991. The monitoring was done as part of a model evaluation study and also for determining the impacts of the plant in regards to compliance with the National Ambient Air Quality Standards (NAAQS). Originally the monitoring network around the plant consisted of sulfur dioxide monitors and total suspended particulate (TSP) monitors; PM₁₀ monitoring was added in 1994. The sulfur dioxide monitoring was discontinued in 1994 and the PM₁₀ monitoring was discontinued in 1996. This permit amendment will allow for the discontinuance of the remaining monitors, that being the TSP monitors.

TABLE A: LIMITS AND OTHER REQUIREMENTS

04/07/99

Facility Name: LTV Steel Mining - Schroeder

Permit Number: 03100001 - 002

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

Subject Item: Total Facility

| What to do | Why to do it |
|--|--|
| The Permittee shall comply with the General Conditions listed in Minn. R. 7007.0800, subp. 16. | Minn. R. 7007.0800, subp. 16 |
| 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 |
| Fugitive Control Plan: Submit a fugitive emission control plan within 60 days of the date of permit issuance for review and approval by the Commissioner. The plan shall identify all fugitive emission sources, primary and contingent control measures, and records kept, if any. | Minn. R. 7007.0800, subp. 2 |
| Comply with Fugitive Emissions Control Plan: Follow the actions and recordkeeping specified in the control plan. The plan may be amended with the Commissioner's approval. If the Commissioner determines that you are out of compliance with Minn. R. 7011.0105 or the control plan, then you may be required to amend the control plan. The Commissioner may also require continued operation of particulate matter ambient air monitors, or re-installation and operation of particulate matter ambient air monitors. | Minn. R. 7007.0800, subp. 2 |
| 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. The permittee shall follow the plan to achieve compliance with the applicable emission limits in this permit. | Minn. R. 7007.0800, subp. 14 and Minn. R. 7007.0800, subp. 16(J) |
| Monitoring Equipment: Install or make needed repairs to monitoring equipment within 60 days of issuance of the permit if monitoring equipment is not installed and operational on the date the permit is issued. | Minn. R. 7007.0800, subp. 4(D) |
| 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) |
| 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 |
| Oral Notification of Deviations Endangering Human Health or the Environment: Within 24 hours of discovery, orally notify the Commissioner of any deviation from permit conditions which could endanger human health or the environment. | Minn. R. 7007.0800, subp. 6(A) |
| Discovery of Deviations Endangering Human Health or the Environment Report (written): due two working days after discovery of deviation, submit a written description of any deviation endangering human health or the environment to the Commissioner. Include the following information in this written description: cause of the deviation; exact dates of the period of the deviation; if the deviation has not been corrected, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent reoccurrence of the deviation. | Minn. R. 7007.0800, subp. 6(A) |
| Application for Permit Amendment: If you need a permit amendment, submit 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 |
| Shutdowns: Notify the Commissioner at least 24 hours in advance of shutdown of any process or control equipment if the shutdown would cause an increase in the emission of air contaminants. At the time of notification, notify the Commissioner of the cause of the shutdown and the estimated duration. Notify the Commissioner again when the shutdown is over. | Minn. R. 7019.1000, subp. 1 |
| Breakdowns: Notify the Commissioner immediately of a breakdown of more than one hour duration of any process or control equipment if the breakdown causes an increase in the emission of air contaminants. At the time of notification or as soon thereafter as possible, the permittee shall also notify the Commissioner of the cause of the breakdown and the estimated duration. Notify the Commissioner again when the breakdown is over. | Minn. R. 7019.1000, subp. 2 |
| Emission Fees: due 60 days after receipt of an MPCA bill | Minn. R. 7002.0005 through Minn. R. 7002.0095 |

TABLE A: LIMITS AND OTHER REQUIREMENTS

04/07/99

Facility Name: LTV Steel Mining - Schroeder

Permit Number: 03100001 - 002

| | |
|--|--------------------------------|
| 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) |
| Record keeping: 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) |
| Record keeping: Retain all records at the stationary source for a period of five (5) years from the date of monitoring, sample, measurement, or report. Records which must be retained at this location include all calibration and maintenance records, all original strip-chart 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) |
| 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) |
| No emissions of acidic or alkaline substances in such amount that the downwind fall out rate at any place where an adverse effect could occur exceeds the upwind fall out rate by five or more spots per hour, measured in accordance with Minn. R. 7011.0405. | Minn. R. 7011.0400 |
| Noise: The Permittee shall comply with noise standards set forth in Minn. R. 7030.0010 to 7030.0080 at all times during operation of any emission units. This is a state requirement only and is not federally enforceable. | Minn. R. 7030.0010-7030.0080 |
| Operating and/or production limits will be placed on emission units based on operating conditions during performance testing. Limits set as a result of a performance test (conducted before or after permit issuance) apply until new operating/production limits are set following formal review of a performance test as specified by Minn. R. 7017.2025. | Minn. R. 7017.2025 |
| Performance Testing: Conduct all performance tests in accordance with Minn. R. ch. 7017 unless otherwise noted in Tables A, B, and/or C. | Minn. R. ch. 7017 |
| 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, such as for system breakdowns, repairs, calibration checks, and zero and span adjustments (as applicable). Monitoring records should reflect any such periods of process shutdown. | Minn. R. 7007.0800, subp. 4(D) |
| Ambient Air Monitoring Network: the Permittee shall discontinue operation of the remaining total suspended particulate ambient air monitors upon issuance of this amendment to the Title V permit. Written notice of the discontinuation shall be sent to the Agency within 10 days of ceasing operation. | Minn. R. 7007.0800, subp. 2 |

TABLE A: LIMITS AND OTHER REQUIREMENTS

04/07/99

Facility Name: LTV Steel Mining - Schroeder

Permit Number: 03100001 - 002

Subject Item: GP 001 Three 745 MMBtu/hr coal-fired boilers**Associated Items:** EU 001 Boiler No. 1

EU 002 Boiler No. 2

EU 003 Boiler No. 3

| What to do | Why to do it |
|---|---|
| Total GP001 Sulfur Dioxide: less than or equal to 1743 lbs/hour using 3 Hour Average | Title I Condition to ensure compliance with the sulfur dioxide ambient air standard in Minn. R. 7009.0080 |
| Mercury content of coal: Less than or equal to 0.20 parts per million on an annual average basis. The agency will refrain from enforcement action for exceedance of this mercury limit if the Permittee is able to demonstrate, to the satisfaction of the agency, that the Permittee has used best efforts to comply with the mercury limit. | Minn. R. 7007.0800, subp. 2 |
| Coal sampling for mercury content: Collect a daily coal sample, and analyze a composite sample of the coal at least once a week according to ASTM Method D-3684. The Permittee shall maintain a record of all analyses for at least 5 years from the date of analysis. Results of the analyses shall be reported to the Supervisor, Compliance Determination Unit semiannually with the Semiannual Deviations Report. | Minn R. 7007.0800, subp. 2 |

TABLE A: LIMITS AND OTHER REQUIREMENTS

04/07/99

Facility Name: LTV Steel Mining - Schroeder

Permit Number: 03100001 - 002

Subject Item: SV 001

Associated Items: EU 001 Boiler No. 1

MR 001

MR 002

MR 003

MR 004

MR 005

| What to do | Why to do it |
|---|---|
| Total Particulate Matter: less than or equal to 0.3 lbs/million Btu heat input (excluding condensable organic particulate matter). | Minn. R. 7007.0800, subp. 2; meets requirements of Minn. R. 7011.0510, subp. 1 |
| Opacity: less than or equal to 20 percent opacity except that a maximum of 60% opacity shall be permissible for four minutes in any 60 minute period and a maximum of 40% opacity shall be permissible for four additional minutes in any 60 minute period based on a one(1)-minute averaging period. | Minn. R. 7011.0510, subp. 2 |
| Sulfur Dioxide: less than or equal to 0.78 lbs/million Btu heat input using 3-hour Average | Minn. R. 7009.0020 to not cause or contribute to a violation of the SO2 ambient air standard in Minn. R. 7009.0080; meets the requirements of Minn. R. 7011.0510, subp. 1 |
| Fuels allowed: bituminous coal, sub-bituminous coal, No. 2 fuel oil, used oil, and used oil sorbents. | Minn. R. 7007.0800, subp. 2 |
| Initial Performance Test: due before 10/31/00 to measure particulate matter emissions. | Minn. R. 7017.2020, subp. 1 |
| Performance Test Pre-test Meeting: due 7 days before Initial Performance Test | Minn. R. 7017.2030, subp. 4 |
| Performance Test: due before end of each 60 months following Initial Performance Test to measure particulate matter emissions. The tests shall be conducted at an interval not to exceed 60 months between test dates. | Minn. R. 7017.2020, subp. 1 |
| Performance Test Pre-test Meeting: due 7 days before end of each 60 months following Initial Performance Test (7 days after each Performance Test) | Minn. R. 7017.2030, subp. 4 |
| Boiler Alternative Operating Conditions for Performance Testing: Alternative Operating Conditions during testing are defined as 90% to 100% of the boiler's maximum normal (continuous) operating load or the maximum permitted operating rate, whichever is lower. The basis for this number must be included in the test plan. If testing is conducted at the alternative operating condition established, an operating limit will not be established as a result of performance testing. In no case will the new operating rate limit be higher than allowed by an existing permit condition. | Minn. R. 7017.2025, subp. 2(A) and 3(B) |
| Boiler Operating Conditions Not Meeting the Alternative Operating Conditions During Performance Testing: If performance testing is not conducted at or above the established alternative operating condition, then the boiler operating rate will be limited on an 8-hour block average based on the following: (1) If the results of the performance test are greater than 80% of any applicable emission limit for which emissions are measured, then boiler operation will be limited to the tested operating rate. (2) If results are less than or equal to 80% of all applicable emission limits for which emissions are measured, boiler operation will be limited to 110% of the tested operating rate. In no case will the new operating rate limit be higher than allowed by an existing permit condition. | Minn. R. 7017.2025, subp. 3(B) |
| STET (Short Term Emergency and Testing) Operating hours limit: The boiler may operate up to 40 hours per year to demonstrate the Uniform Rating of Generating Equipment (URGE) capacity and to meet emergency energy supply needs. Documentation of all STET operation shall be maintained. The boiler must meet emission limits during STET operation. | Minn. R. 7007.0800, subp. 2 |

TABLE A: LIMITS AND OTHER REQUIREMENTS

04/07/99

Facility Name: LTV Steel Mining - Schroeder

Permit Number: 03100001 - 002

| | |
|--|---|
| STET Operation Definition that applies to Boilers that Meet or do Not Meet the Alternative Operating Condition for Performance Testing: If performance test results measure emissions at 80% or less of any applicable emission limits for any tested pollutant, STET operation is defined as operation beyond 110% of the average operating rate achieved during that performance test. If performance test results measure emissions at greater than 80% any applicable emission limit for any tested pollutant, STET operation is defined as operation beyond 100% of the average operating rate achieved during that performance test. In no case will STET operation be higher than allowed by an existing permit condition. | Minn. R. 7007.0800, subp. 2 |
| The results of a performance test are not final until issuance of a review letter by MPCA, unless specified otherwise by Minn. R. 7017.2001 - 7017.2060. | Minn. R. 7017.2020, subp. 4 |
| Emissions Monitoring: The owner or operator shall measure the opacity of the emission unit using a COMS. | Minn. R. 7017.1000, subp. 1; Minn. R. 7007.0800, subp. 2 |
| COMS Monitoring Data: Owners or operators of all COMS shall reduce all data to one-minute averages. Opacity averages shall be calculated from all equally spaced consecutive 10-second (or shorter) data points in the one-minute averaging period. | Minn. R. 7007.0800, subp. 2 |
| COMS Continuous Operation: Except for system breakdowns, repairs, calibration checks and zero and span adjustments, all COMS shall be in continuous operation. | Minn. R. 7007.0800, subp. 2 |
| 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 the twice specification of PS-1 of 40 CFR pt. 60, Appendix B. | Minn. R. 7017.1000 |
| COMS Calibration Error Audit: due before end of each calendar half-year following COMS Certification Test . Conduct audits at least 3 months apart but no greater than 8 months apart. | Minn. R. 7007.0800, subp. 2 |
| Emissions Monitoring: The owner or operator shall monitor SO2 emissions using a CEMS. | Minn. R. 7017.1000, subp. 1; Minn. R. 7007.0800, subp. 2 |
| SO2 CEM Failure: The permittee shall conduct daily coal sampling if the SO2 CEM on SV 001 has been down for at least 48 hours and no other boiler is operating. Coal sampling shall be at the coal feeder and shall meet the requirements of ASTM 2234. If another boiler is operating and the SO2 emissions from the other boiler are measured with a functioning SO2 CEM, and the other boiler is burning the same coal, the data from the operating SO2 CEM will be used as a measure of SV 001 SO2 emissions. | Minn. R. 7007.0800, subp. 2 |
| CEMS Continuous Operation: Except for system breakdowns, repairs, calibrations checks and zero and span adjustments, all CEMS shall be in continuous operation. | Minn. R. 7007.0800, subp. 2 |
| CEMS Daily Calibration Drift (CD) Test: The CD shall be quantified and recorded at zero (low-level) and upscale (high-level) gas concentrations at least once daily. The CEMS shall be adjusted whenever the CD exceeds twice the specification of 40 CFR pt. 60, Appendix B. 40 CFR pt. 60, Appendix F, shall be used to determine out-of-control periods for CEMS. | Minn. R. 7007.0800, subp. 2; Minn. R. 7017.1000, subp. 5 |
| CEMS Cylinder Gas Audit (CGA): due before end of each calendar half-year following CEM Certification Test . Conduct CGA at least 3 months apart and not greater than 8 months apart. Follow the procedures in 40 CFR pt. 60, Appendix F. | Minn. R. 7007.0800, subp. 2 |
| CEMS Relative Accuracy Test Audit (RATA): due before end of each calendar year following CEM Certification Test . If the relative accuracy is 15% or less the next CEMS RATA is not due for 24 months. Follow the procedures in 40 CFR pt. 60 Appendix B and Appendix F. | Minn. R. 7007.0800, subp. 2 |
| Recordkeeping: The owner or operator must retain records of all CEMS/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. 7007.0800, subp. 5 |

TABLE A: LIMITS AND OTHER REQUIREMENTS

04/07/99

Facility Name: LTV Steel Mining - Schroeder

Permit Number: 03100001 - 002

Subject Item: SV 002**Associated Items:** EU 002 Boiler No. 2

MR 006

MR 007

MR 008

MR 009

MR 010

| What to do | Why to do it |
|---|---|
| Total Particulate Matter: less than or equal to 0.3 lbs/million Btu heat input (excluding condensable organic particulate matter). | Minn. R. 7007.0800, subp. 2; meets requirements of Minn. R. 7011.0510, subp. 1 |
| Opacity: less than or equal to 20 percent opacity except that a maximum of 60% opacity shall be permissible for four minutes in any 60 minute period and a maximum of 40% opacity shall be permissible for four additional minutes in any 60 minute period based on a one(1)-minute averaging period. | Minn. R. 7011.0510, subp. 2 |
| Sulfur Dioxide: less than or equal to 0.78 lbs/million Btu heat input using 3-hour Average | Minn. R. 7009.0020 to not cause or contribute to a violation of the SO ₂ ambient air standard in Minn. R. 7009.0080; meets requirements of Minn. R. 7011.0510, subp. 1 |
| Fuels allowed: bituminous coal, sub-bituminous coal, No. 2 fuel oil, used oil, and used oil sorbents. | Minn. R. 7007.0800, subp. 2 |
| Initial Performance Test: due before 10/31/00 to measure particulate matter emissions. | Minn. R. 7017.2020, subp. 1 |
| Performance Test Pre-test Meeting: due 7 days before Initial Performance Test | Minn. R. 7017.2030, subp. 4 |
| Boiler Alternative Operating Conditions for Performance Testing: Alternative Operating Conditions during testing are defined as 90% to 100% of the boiler's maximum normal (continuous) operating load or the maximum permitted operating rate, whichever is lower. The basis for this number must be included in the test plan. If testing is conducted at the alternative operating condition established, an operating limit will not be established as a result of performance testing. In no case will the new operating rate limit be higher than allowed by an existing permit condition. | Minn. R. 7017.2025, subp. 2(A) and 3(B) |
| Boiler Operating Conditions Not Meeting the Alternative Operating Conditions During Performance Testing: If performance testing is not conducted at or above the established alternative operating condition, then the boiler operating rate will be limited on an 8-hour block average based on the following: (1) If the results of the performance test are greater than 80% of any applicable emission limit for which emissions are measured, then boiler operation will be limited to the tested operating rate. (2) If results are less than or equal to 80% of all applicable emission limits for which emissions are measured, boiler operation will be limited to 110% of the tested operating rate. In no case will the new operating rate limit be higher than allowed by an existing permit condition. | Minn. R. 7017.2025, subp. 3(B) |
| STET (Short Term Emergency and Testing) Operating hours limit: The boiler may operate up to 40 hours per year to demonstrate the Uniform Rating of Generating Equipment (URGE) capacity and to meet emergency energy supply needs. Documentation of all STET operation shall be maintained. The boiler must meet emission limits during STET operation. | Minn. R. 7007.0800, subp. 2 |

TABLE A: LIMITS AND OTHER REQUIREMENTS

04/07/99

Facility Name: LTV Steel Mining - Schroeder

Permit Number: 03100001 - 002

| | |
|--|---|
| STET Operation Definition that applies to Boilers that Meet or do Not Meet the Alternative Operating Condition for Performance Testing: If performance test results measure emissions at 80% or less of any applicable emission limits for any tested pollutant, STET operation is defined as operation beyond 110% of the average operating rate achieved during that performance test. If performance test results measure emissions at greater than 80% any applicable emission limit for any tested pollutant, STET operation is defined as operation beyond 100% of the average operating rate achieved during that performance test. In no case will STET operation be higher than allowed by an existing permit condition. | Minn. R. 7007.0800, subp. 2 |
| The results of a performance test are not final until issuance of a review letter by MPCA, unless specified otherwise by Minn. R. 7017.2001 - 7017.2060. | Minn. R. 7017.2020, subp. 4 |
| Performance Test: due before end of each 60 months following Initial Performance Test to measure particulate matter emissions. The tests shall be conducted at an interval not to exceed 60 months between test dates. | Minn. R. 7017.2020, subp. 1 |
| Performance Test Pre-test Meeting: due 7 days before end of each 60 months following Initial Performance Test (7 days after each Performance Test) | Minn. R. 7017.2030, subp. 4 |
| Emissions Monitoring: The owner or operator shall measure the opacity of the emission unit(s) using a COMS. | Minn. R. 7007.0800, subp. 2 |
| COMS Monitoring Data: Owners or operators of all COMS shall reduce all data to one-minute averages. Opacity averages shall be calculated from all equally spaced consecutive 10-second (or shorter) data points in the one-minute averaging period. | Minn. R. 7007.0800, subp. 2 |
| COMS Continuous Operation: Except for system breakdowns, repairs, calibration checks and zero and span adjustments, all COMS shall be in continuous operation. | Minn. R. 7007.0800, subp. 2 |
| 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 pt. 60, Appendix B. | Minn. R. 7017.1000 |
| COMS Calibration Error Audit: due before end of each calendar half-year following COMS Certification Test. Conduct audits at least 3 months apart but no greater than 8 months apart. | Minn. R. 7007.0800, subp. 2 |
| Emissions Monitoring: The owner or operator shall monitor SO2 emissions using a CEMS. | Minn. R. 7017.1000, subp. 1; Minn. R. 7007.0800, subp. 2 |
| SO2 CEM Failure: The permittee shall conduct daily coal sampling if the SO2 CEM on SV 002 has been down for at least 48 hours and no other boiler is operating. Coal sampling shall be at the coal feeder and shall meet the requirements of ASTM 2234. If another boiler is operating and the SO2 emissions from the other boiler are measured with a functioning SO2 CEM, and the other boiler is burning the same coal, the data from the operating SO2 CEM will be used as a measure of SV 002 SO2 emissions. | Minn. R. 7007.0800, subp. 2 |
| CEMS Continuous Operation: Except for system breakdowns, repairs, calibrations checks and zero and span adjustments, all CEMS shall be in continuous operation. | Minn. R. 7007.0800, subp. 2 |
| CEMS Daily Calibration Drift (CD) Test: The CD shall be quantified and recorded at zero (low-level) and upscale (high-level) gas concentrations at least once daily. The CEMS shall be adjusted whenever the CD exceeds twice the specifications of 40 CFR pt. 60, Appendix B. 40 CFR pt. 60, Appendix F, shall be used to determine out-of-control periods for CEMS. | Minn. R. 7007.0800, subp. 2; Minn. R. 7017.1000, subp. 5 |
| CEMS Cylinder Gas Audit (CGA): due before end of each calendar half-year following CEM Certification Test. Conduct CGA at least 3 months apart and not greater than 8 months apart. Follow the procedures in 40 CFR pt. 60, Appendix F. | Minn. R. 7007.0800, subp. 2 |
| CEMS Relative Accuracy Test Audit (RATA): due before end of each calendar year following CEM Certification Test. If the relative accuracy is 15% or less the next CEMS RATA is not due for 24 months. Follow the procedures in 40 CFR pt. 60 Appendix B and Appendix F. | Minn. R. 7007.0800, subp. 2 |
| Recordkeeping: The owner or operator must retain records of all CEMS/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. 7007.0800, subp. 5 |

TABLE A: LIMITS AND OTHER REQUIREMENTS

04/07/99

Facility Name: LTV Steel Mining - Schroeder

Permit Number: 03100001 - 002

Subject Item: SV 003**Associated Items:** EU 003 Boiler No. 3

MR 011

MR 012

MR 013

MR 014

MR 015

| What to do | Why to do it |
|---|--|
| Total Particulate Matter: less than or equal to 0.3 lbs/million Btu heat input (excluding condensable organic particulate matter). | Minn. R. 7007.0800, subp. 2; meets requirements of Minn. R. 7011.0510, subp. 1 |
| Opacity: less than or equal to 20 percent opacity except that a maximum of 60% opacity shall be permissible for four minutes in any 60 minute period and a maximum of 40% opacity shall be permissible for four additional minutes in any 60 minute period based on a one(1)-minute averaging period. | Minn. R. 7011.0510, subp. 2; |
| Sulfur Dioxide: less than or equal to 0.78 lbs/million Btu heat input using 3-hour Average | Minn. R. 7009.0020 to not cause or contribute to a violation of the ambient SO2 standards in Minn. R. 7009.0080; meets the requirements of Minn. R. 7011.0510, subp. 1 |
| Fuels allowed: bituminous coal, sub-bituminous coal, No. 2 fuel oil, used oil, and used oil sorbents. | Minn. R. 7007.0800, subp. 2 |
| Initial Performance Test: due before 09/30/98 to measure particulate matter emissions. | Minn. R. 7017.2020, subp. 1 |
| Performance Test Pre-test Meeting: due 7 days before Initial Performance Test | Minn. R. 7017.2030, subp. 4 |
| Boiler Alternative Operating Conditions for Performance Testing: Alternative Operating Conditions during testing are defined as 90% to 100% of the boiler's maximum normal (continuous) operating load or the maximum permitted operating rate, whichever is lower. The basis for this number must be included in the test plan. If testing is conducted at the alternative operating condition established, an operating limit will not be established as a result of performance testing. In no case will the new operating rate limit be higher than allowed by an existing permit condition. | Minn. R. 7017.2025, subp. 2(A) and 3(B) |
| Boiler Operating Conditions Not Meeting the Alternative Operating Conditions During Performance Testing: If performance testing is not conducted at or above the established alternative operating condition, then the boiler operating rate will be limited on an 8-hour block average based on the following: (1) If the results of the performance test are greater than 80% of any applicable emission limit for which emissions are measured, then boiler operation will be limited to the tested operating rate. (2) If results are less than or equal to 80% of all applicable emission limits for which emissions are measured, boiler operation will be limited to 110% of the tested operating rate. In no case will the new operating rate limit be higher than allowed by an existing permit condition. | Minn. R. 7017.2025, subp. 3(B) |
| STET (Short Term Emergency and Testing) Operating hours limit: The boiler may operate up to 40 hours per year to demonstrate the Uniform Rating of Generating Equipment (URGE) capacity and to meet emergency energy supply needs. Documentation of all STET operation shall be maintained. The boiler must meet emission limits during STET operation. | Minn. R. 7007.0800, subp. 2 |

TABLE A: LIMITS AND OTHER REQUIREMENTS

04/07/99

Facility Name: LTV Steel Mining - Schroeder

Permit Number: 03100001 - 002

| | |
|--|---|
| STET Operation Definition that applies to Boilers that Meet or do Not Meet the Alternative Operating Condition for Performance Testing: If performance test results measure emissions at 80% or less of any applicable emission limits for any tested pollutant, STET operation is defined as operation beyond 110% of the average operating rate achieved during that performance test. If performance test results measure emissions at greater than 80% any applicable emission limit for any tested pollutant, STET operation is defined as operation beyond 100% of the average operating rate achieved during that performance test. In no case will STET operation be higher than allowed by an existing permit condition. | Minn. R. 7007.0800, subp. 2 |
| The results of a performance test are not final until issuance of a review letter by MPCA, unless specified otherwise by Minn. R. 7017.2001 - 7017.2060. | Minn. R. 7017.2020, subp. 4 |
| Performance Test: due before end of each 36 months following Initial Performance Test to measure particulate matter emissions. The tests shall be conducted at an interval not to exceed 36 months between test dates. | Minn. R. 7017.2020, subp. 1 |
| Performance Test Pre-test Meeting: due 7 days before end of each 36 months following Initial Startup (7 days before each Performance Test) | Minn. R. 7017.2030, subp. 4 |
| Emissions Monitoring: The owner or operator shall measure the opacity of the emission unit using a COMS. | Minn. R. 7007.0800, subp. 2 |
| COMS Monitoring Data: Owners or operators of all COMS shall reduce all data to one-minute averages. Opacity averages shall be calculated from all equally spaced consecutive 10-second (or shorter) data points in the one-minute averaging period. | Minn. R. 7007.0800, subp. 2 |
| COMS Continuous Operation: Except for system breakdowns, repairs, calibration checks and zero and span adjustments, all COMS shall be in continuous operation. | Minn. R. 7007.0800, subp. 2 |
| 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 specifications of PS-1 of 40 CFR pt. 60, Appendix B. | Minn. R. 7017.1000 |
| COMS Calibration Error Audit: due before end of each calendar half-year following COMS Certification Test. Conduct audits at least 3 months apart but no greater than 8 months apart. | Minn. R. 7007.0800, subp. 2 |
| Emissions Monitoring: The owner or operator shall monitor SO ₂ emissions using a CEMS. | Minn. R. 7017.1000, subp. 1; Minn. R. 7007.0800, subp. 2 |
| SO ₂ CEM Failure: The permittee shall conduct daily coal sampling if the SO ₂ CEM on SV 003 has been down for at least 48 hours and no other boiler is operating. Coal sampling shall be at the coal feeder and shall meet the requirements of ASTM 2234. If another boiler is operating and the SO ₂ emissions from the other boiler are measured with a functioning SO ₂ CEM, and the other boiler is burning the same coal, the data from the operating SO ₂ CEM will be used as a measure of SV 003 SO ₂ emissions. | Minn. R. 7007.0800, subp. 2 |
| CEMS Continuous Operation: Except for system breakdowns, repairs, calibrations checks and zero and span adjustments, all CEMS shall be in continuous operation. | Minn. R. 7007.0800, subp. 2 |
| CEMS Daily Calibration Drift (CD) Test: The CD shall be quantified and recorded at zero (low-level) and upscale (high-level) gas concentrations at least once daily. The CEMS shall be adjusted whenever the CD exceeds twice the specification of 40 CFR pt. 60, Appendix B. 40 CFR pt. 60, Appendix F, shall be used to determine out-of-control periods for CEMS. | Minn. R. 7007.0800, subp. 2; Minn. R. 7017.1000, subp. 5 |
| CEMS Cylinder Gas Audit (CGA): due before end of each calendar half-year following CEM Certification Test. Conduct CGA at least 3 months apart and not greater than 8 months apart. Follow the procedures in 40 CFR pt. 60, Appendix F. | Minn. R. 7007.0800, subp. 2 |
| CEMS Relative Accuracy Test Audit (RATA): due before end of each calendar year following CEM Certification Test. If the relative accuracy is 15% or less the next CEMS RATA is not due for 24 months. Follow the procedures in 40 CFR pt. 60 Appendix B and Appendix F. | Minn. R. 7007.0800, subp. 2 |
| Recordkeeping: The owner or operator must retain records of all CEMS/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. 7007.0800, subp. 5 |

TABLE A: LIMITS AND OTHER REQUIREMENTS

04/07/99

Facility Name: LTV Steel Mining - Schroeder

Permit Number: 03100001 - 002

Subject Item: EU 004 Heating Boiler**Associated Items:** SV 004

| What to do | Why to do it |
|---|-----------------------------|
| Total Particulate Matter: less than or equal to 0.6 lbs/million BTU heat input | Minn. R. 7011.0510, subp. 1 |
| Opacity: less than or equal to 20 percent opacity except that a maximum of 60 percent opacity shall be permissible for four minutes in any 60-minute period and that a maximum of 40 percent opacity shall be permissible for four additional minutes in any 60-minutes period. | Minn. R. 7011.0510, subp. 2 |
| Fuel type limited to distillate fuel oil. | Minn. R. 7007.0800, subp. 2 |

TABLE A: LIMITS AND OTHER REQUIREMENTS

04/07/99

Facility Name: LTV Steel Mining - Schroeder
Permit Number: 03100001 - 002

Subject Item: EU 005 Cold Start Generator

Associated Items: SV 005

| What to do | Why to do it |
|--|-----------------------------|
| Opacity: less than or equal to 20 percent opacity for more than 10 consecutive seconds once operating temperatures have been obtained. | Minn. R. 7011.2300, subp. 1 |
| Fuel type limited to distillate fuel oil. | Minn. R. 7007.0800, subp. 2 |

TABLE A: LIMITS AND OTHER REQUIREMENTS

04/07/99

Facility Name: LTV Steel Mining - Schroeder

Permit Number: 03100001 - 002

Subject Item: EU 006 Ash Collection Baghouse**Associated Items:** CE 004 Fabric Filter - Low Temperature, i.e., T<180 Degrees F
SV 006

| What to do | Why to do it |
|--|--------------------------------|
| Total Particulate Matter: less than or equal to 0.3 grains/dry standard cubic foot if not required to further reduce emissions according to Minn. R. 7011.0710, subp. 1.A. | Minn. R. 7011.0710, subp. 1.A. |
| Opacity: less than or equal to 20 percent opacity except that a maximum of 60 percent opacity is allowed for four minutes in any 60-minute period, and a maximum of 40 percent opacity is allowed for four additional minutes in any 60-minute period. | Minn. R. 7011.0710, subp. 1.B. |

TABLE B: SUBMITTALS

04/07/99

Facility Name: LTV Steel Mining - Schroeder
Permit Number: 03100001 - 002

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

04/07/99

Facility Name: LTV Steel Mining - Schroeder

Permit Number: 03100001 - 002

| What to send | When to send | Portion of Facility Affected |
|--|---|-------------------------------------|
| Application for Permit Reissuance | due 180 days before expiration of Existing Permit | Total Facility |
| Fugitive Control Plan | due 60 days after Permit Issuance . The plan should be an updated version of the fugitive emissions control plan submitted to the agency in 1994. | Total Facility |
| Notification | due 10 days after Cease Operation of the total suspended particulate matter ambient air monitoring network. The notification letter shall be sent to the Compliance Tracking Coordinator. | Total Facility |
| Performance Test Notification (written) | due 30 days before Initial Performance Test | SV001, SV002, SV003 |
| Performance Test Plan | due 30 days before Initial Performance Test | SV001, SV002, SV003 |
| Performance Test Report - Microfiche Copy | due 105 days after Initial Performance Test | SV001, SV002, SV003 |
| Performance Test Report | due 45 days after Initial Performance Test | SV001, SV002, SV003 |
| Relative Accuracy Test Audit (RATA) Notification | due 30 days before CEMS Relative Accuracy Test Audit (RATA) | SV001, SV002, SV003 |

TABLE B: RECURRENT SUBMITTALS

04/07/99

Facility Name: LTV Steel Mining - Schroeder

Permit Number: 03100001 - 002

| 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 Permit Issuance (Submit Deviations Reporting Form DRF-1 as amended). The EER's shall indicate all periods of exceedances of the limit including exceedances allowed by an applicable standard, i.e. during startup, shutdowns, and malfunctions. | SV001, SV002, SV003 |
| Relative Accuracy Test Audit (RATA) Results Summary | due 30 days after end of each calendar quarter following CEMS Relative Accuracy Test Audit (RATA) . | SV001, SV002, SV003 |
| CEMS Cylinder Gas Audit (CGA) Results Summary | due 30 days after end of each calendar half-year following CEMS Cylinder Gas Audit (CGA) | SV001, SV002, SV003 |
| COMS Calibration Error Audit Results Summary | due 30 days after end of each calendar half-year following COMS Calibration Error Audit | SV001, SV002, SV003 |
| Semiannual Deviations Report | due 30 days after end of each calendar half-year following Permit Issuance . The first report covers January 1 - June 30. The second report covers July 1 - December 31. | Total Facility |
| Compliance Certification | due 30 days after end of each calendar year following Permit Issuance . The report covers all deviations experienced during the previous calendar year. | Total Facility |
| Emissions 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 | Total Facility |
| Performance Test Notification (written) | due 30 days before end of each 36 months following Initial Performance Test (30 days before each Performance Test) | SV003 |
| Performance Test Plan | due 30 days before end of each 36 months following Initial Performance Test (30 days before each Performance Test) | SV003 |
| Performance Test Report - Microfiche Copy | due 105 days after end of each 36 months following Initial Performance Test (105 days after each Performance Test) | SV003 |
| Performance Test Report | due 45 days after end of each 36 months following Initial Performance Test (45 days after each Performance Test) | SV003 |
| Performance Test Notification (written) | due 30 days before end of each 60 months following Initial Performance Test (30 days before each Performance Test) | SV002 |
| Performance Test Notification (written) | due 30 days before end of each 60 months following Initial Performance Test (30 days before each Performance Test). | SV001 |
| Performance Test Plan | due 30 days before end of each 60 months following Initial Performance Test (30 days before each Performance Test) | SV001 |
| Performance Test Plan | due 30 days before end of each 60 months following Initial Performance Test (30 days before each Performance Test) | SV002 |
| Performance Test Report - Microfiche Copy | due 105 days after end of each 60 months following Initial Performance Test (105 days after each Performance Test) | SV001 |
| Performance Test Report - Microfiche Copy | due 105 days after end of each 60 months following Initial Performance Test (105 days after each Performance Test) | SV002 |
| Performance Test Report | due 45 days after end of each 60 months following Initial Performance Test (45 days after end of each Performance Test) | SV001 |
| Performance Test Report | due 45 days after end of each 60 months following Initial Performance Test (45 days after end of each Performance Test) | SV002 |

TECHNICAL SUPPORT DOCUMENT
For
AIR EMISSION PERMIT NO. 03100001-002

This Technical Support Document (TSD) is for all the interested parties of the permit. The purpose of this document is to set forth the legal and factual basis for the permit conditions, including references to the applicable statutory or regulatory provisions.

1. General Information

1.1. Applicant and Stationary Source Location:

| Owner/Operator Address and Phone Number (list both if different) | Facility Address (SIC Code: 5171) |
|--|--|
| LTV Steel Mining Company P.O. Box 847 County Road North 666 Hoyt Lakes, Minnesota 55750 | LTV Steel Mining Company - Taconite Harbor Power Plant & Loading Dock P.O. Box 64 Taconite Harbor - U.S. Highway 61 Schroeder, Minnesota 55613 |

1.2. Description Of The Facility

LTV Steel Mining Company (LTVSMC) operates a coal-fired steam powered electrical energy generating station and loading terminal at its Taconite Harbor facility near Schroeder, Cook County, Minnesota. The three tangentially fired coal boilers at the facility produce steam which is used to generate electricity. The vast majority of the electricity produced is used to power LTVSMC's taconite ore processing facility in Hoyt Lakes, Minnesota. A small portion of the electricity produced is sold. The amount of electricity sold is small enough as to exempt the facility from the Title IV Acid Rain permitting program.

The coal burned at the facility is delivered to the facility by boat and unloaded and conveyed to a coal surge pile via a series of conveyors. The conveyor system can also be used to convey coarse aggregate materials, such as fluxstone or coal, into railcars. The coal is transferred directly from the coal surge pile by scraper or dozer to the boiler house building, pulverized, and fed into the boilers. Coal is also transferred to a coal stockpile for long term storage for use during the nonshipping season. The ash generated by the boilers is pneumatically conveyed to the ash collection silo. The ash is currently mixed with water and taken to an approved ash disposal site. However LTVSMC is proceeding with the construction of a new dry ash handling system that will be operational in the spring of 1999. This new system will allow the facility to sell its flyash and is currently studying beneficial reuse applications for its bottom ash.

The three boilers are equipped with distillate oil burners that are used when a boiler is started. The burners fire only enough oil to heat the boiler sufficiently to allow coal firing to begin. The use of distillate oil in the boilers is for startup purposes only, not for backup fuel use.

Taconite pellets, pellet chips, and iron ore shipped by railcar from the Hoyt Lakes facility are unloaded into a number of storage bins to await loading onto boats. During the shipping season, these products are then conveyed from the storage bins into the boats.

The facility previously maintained and operated four large petroleum storage tanks and then later leased the tanks out to a marine refueling company. Currently all four tanks are decommissioned. One still contains residual fuel oil, one has been cleaned for use as a flyash storage bin, and two have been removed completely.

The facility also operates a heating boiler, a cold start generator, and an emergency fire pump. The heating boiler is used to provide heat to the facility buildings during the time periods when all three main boilers are shut down. The cold start generator is used to restart the main boilers after time periods when all three main boilers are shut down and energy is not available from a local utility. The emergency fire pump is operated for routine testing and during emergency situations.

The draft permit does not allow for new construction or an increase in emissions.

1.3 Description of the Activities Allowed By This Permit Action

This permit action allows the Permittee to discontinue operation of their Total Suspended Particulate (TSP) ambient air quality monitors. The original Title V permit (Air Emission Permit No. 03100001-001) had a condition that allowed for the discontinuation after one more year of continued ambient compliance shown by the monitors. The one more year of continued compliance was shown and the Permittee has applied for the permit change. It should also be noted that the original monitors showed no violations for three (3) plus years of monitoring prior to permit issuance.

LTV Steel began ambient air monitoring at the time the plant started back up in 1991. The monitoring was done as part of a model evaluation study and also for determining the impacts of the plant in regards to compliance with the National Ambient Air Quality Standards (NAAQS). Originally the monitoring network around the plant consisted of sulfur dioxide monitors and total suspended particulate (TSP) monitors; Particulate Matter less than 10 μm in size (PM_{10}) monitoring was added in 1994. The sulfur dioxide monitoring was discontinued in 1994 and the PM_{10} monitoring was discontinued in 1996. This permit amendment will allow for the discontinuance of the remaining monitors, that being the TSP monitors.

1.4. Facility Emissions:

No change in emissions is occurring with this permit amendment. The emissions table below reflects the same information as the original Title V permit.

Table 1. Total Facility Potential to Emit Summary and Attainment Status

| Pollutant | Potential to Emit (Tons/year =TPY) | Attainment or Unclassified? (Yes or No) |
|--|---|--|
| Particulate Matter (PM) | 2,985 | Not Applied |
| Particulate Matter less than 10 micron (PM ₁₀) | 2980 | Yes |
| Sulfur Dioxide (SO ₂) | 7,635 | Yes |
| Nitrogen Oxides (NO _x) | 8,373 | Yes |
| Volatile Organic Compounds (VOCs)/Ozone | 83.7 | Yes |
| Carbon Monoxide (CO) | 306 | Yes |
| Lead | 3.3 | Yes |
| Hazardous Air Pollutants (add as needed) | >25 total | Not Applied |

Table 2. Permit Action Classification

| Classification (put x in appropriate box) | Major/Affected Source | *Synthetic Minor | *Minor |
|--|---|-----------------------------|---------------|
| PSD (list pollutant) | PM ₁₀ , TSP, SO ₂ , NO _x , CO | | |
| NAAR (list pollutant) Not Applicable | | | |
| Part 70 Permit Program (list pollutant) | PM ₁₀ , TSP, SO ₂ , NO _x , CO | | |

* 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 Units Affected by the Modification

Table 4. Regulatory Overview

| EU, GRP, or SV # | Applicable Regulations | Comments |
|------------------------------|--|--|
| EU 001, EU 002, EU 003 | Minn. R. 7011.0510 | Standards of Performance for Existing Indirect Heating Equipment (for PM and opacity). |
| EU 001, EU 002, EU 003 | Minn. R. 7009.0020 Minn. R. 7009.0080 | Ambient Air Quality Compliance Provision (for SO ₂). |

3. Technical Information

The following additional information is attached to or included as additional sections to the TSD:

NO FURTHER ATTACHMENTS

4. Conclusion

Based on the information provided by LTV Steel Mining Company, the MPCA has reasonable assurance that the proposed operation of the emission facility, as described in the Air Emission Permit No. 03100001-002 and this TSD, will not cause or contribute to a violation of applicable federal regulations and Minnesota Rules.

Staff Members on Permit Team: Brett Ballavance, Bob Beresford

Attachment: CD-01 Forms
Others specified in section 3