

AIR EMISSION PERMIT NO. 13700062- 001

IS ISSUED TO

ISPAT INLAND STEEL MINING CO

Ispat Inland Steel Mining Co
U.S. Highway 53 North
Virginia, St. Louis County, Minnesota 55792

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	January 17, 1995

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. 7007.1150 to 7007.1500. Terms used in the permit 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: **January 14, 2000**

Expiration: **January 14, 2005**

All Title I Conditions do not expire.

Ann Foss

Ann M. Foss

Manager

North/South Major Facilities

for Karen A. Studders
Commissioner
Minnesota Pollution Control Agency

HJ:yma

TABLE OF CONTENTS

Notice to the Permittee

Permit Shield

Facility Description

Table A: Limits and Other Requirements

Table B: Submittals

Appendices: Attached and Referenced in Table A

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 as not applying.

The permit shield, however does not apply to: Minn. R. ch. 7030 (Noise Pollution Control), Minn. R. ch. 7009 (Minnesota Ambient Air Quality Standards) or the National Ambient Air Quality Standards (NAAQS).

FACILITY DESCRIPTION:

Ispat Inland Steel Mining Company produces taconite pellets for sale to the steel industry. This facility is capable of producing flux pellets and acid pellets. The facility is capable of producing 400 tons/hour and 3,200,000 tons per year of pellets (flux, acid, or combination of both). This facility has one induration furnace.

The taconite pellet production process consists of a number of interrelated operations. These operations include ore mining, ore crushing, ore concentrating, pelletizing and shipping. The production of flux pellets also requires fluxstone (typically limestone) processing. In 1987 Inland Steel was issued a Prevention of Significant Deterioration (PSD) permit for the installation of auxiliary burners in the induration furnace and the installation of fluxstone handling equipment. The installation of the fluxstone equipment also included the relocation of existing coal handling equipment to be used in the fluxstone processing operations. Inland no longer has the capability to handle coal and transport it to the induration furnace without undergoing a modification and permit approval.

Appendix I to Permit 1370062-001: Visible Emissions Checklist(s) Requirements

Emission Units and Stack/Vents:

The Permittee shall monitor, record and maintain records of the following information for SV002,003,009,010,012,013 and 022.

Visible Emissions Checklist(s):

- 1) Initials of observer;
- 2) Date and time of observation;
- 3) Indication of process and control equipment performance, either "requires attention", or "does not require attention". This determination is based upon an observed change in visible emission characteristics from that observed when this source and its pollution control equipment are properly operated and maintained. A change in visible emission characteristics will be indicative of "requires attention";
- 4) Facility identification of emission unit.
- 5) Short description of emission unit.

The Permittee shall retain a central facility checklist of the following information to support the Visible emission checklist(s):

- 1) Description of investigation and corrective actions completed for each "requires attention" observation marked on the visible emission checklist(s);
- 2) Weather conditions (temperature, cloud cover, wind, precipitation);
- 3) A key which will enable an inspector to cross reference the identification numbers or names used on the visible emission checklist(s) to the Emission Unit (EU), Stack/Vent (SV) and Control Equipment (CE) numbers used in the Title V permit.

TABLE A: LIMITS AND OTHER REQUIREMENTS

01/14/00

Facility Name: Ispat Inland Steel Mining Co
 Permit Number: 13700062 - 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: Operate all air 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)
Comply with the O&M Plan: Follow the actions and record keeping specified in the O&M plan. The plan may be amended with Commissioner's written approval.	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 180 days of permit issuance, if monitoring equipment is not installed on the date the permit is issued.	Minn. R. 7007.0800, subp. 4(D)
Monitoring Equipment Debugging, Troubleshooting, and Establishment of Parameter Ranges: Complete within 365 days of permit issuance	Minn. R. 7007.0800, subp. 4(D)
Visible Emissions Training: The Permittee shall (1) ensure that one plant employee obtain an initial EPA Method 9 certification and be recertified every three years; or (2) employ a similarly certified contractor. This person will train other plant employees to perform the daily visible emissions check as detailed in the O & M Plan and Fugitive Control Plan.	Minn. R. 7007.0800, subp. 4(D) and Minn. R. 7007.0800, subp. 14 and Minn. R. 7007.0800, subp. 16(J)
Visible Emissions Check: Prior to approval of the O&M Plan, the Permittee shall check visible emissions from SV 002, 003, 009, 010, 012, 013, and 022 once daily when in operation during daylight hours. A form(s) meeting the requirements of Appendix I shall be used to indicate whether process or control equipment requires attention. In the event the Permittee makes a finding that attention is required, the Permittee shall investigate the process and control equipment performance and implement appropriate corrective action, if necessary. Upon approval of the O&M Plan, the Permittee shall check visible emissions from SV 002, 003, 009, 010, 012, 013, and 022 once daily when in operation during daylight hours. The Permittee shall use the visible emissions checklists in the O&M Plan as a means to indicate when appropriate corrective actions in the O&M Plan should be taken.	Minn. R. 7007.0800, subp. 4(D) and Minn. R. 7007.0800, subp. 14 and Minn. R. 7007.0800, subp. 16(J)
Visible Emissions Checklist(s): The Permittee shall use one or more checklists that contain SV 002, 003, 009, 010, 012, 013, and 022. These checklist(s) will be a part of the O&M plan. The checklist or checklists must contain at a minimum the information contained in Appendix I.	Minn. R. 7007.0800, subp. 4(D) and Minn. R. 7007.0800, subp. 14 and Minn. R. 7007.0800, subp. 16(J)
Fugitive Control Plan: Comply with the fugitive control plan. Follow the actions and recordkeeping specified in the fugitive control plan. The plan may be amended with the Commissioners approval. If the Commissioner determines the Permittee is out of compliance with Minn. R. 7011.0150, or fugitive control plan, then the Permittee may be required to amend the fugitive control plan. Prior to approval of the fugitive dust control plan the Permittee shall observe fugitive dust from FS007-020 at least once daily and take corrective action to control emissions in excess of Minn. R. 7011.0150.0	Minn. R. 7011.0150
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
Contractors: The Permittee shall retain records on site of all contractors that are allowed on site that include any crushers, screens and conveyors. The Permittee shall also retain records on site of all contractors whose operations would require an Air Emissions Permit from the MPCA. The records shall include the contractors company name, MPCA air emissions permit number, short description of activities undertaken by the contractor, estimate of emissions or materials handled and the dates the contractor was on site. The record shall be updated in the month following any month when a contractor has operated at this facility.	Minn. R. 7007.0800, subp. 2
Contractors: The Permittee shall evaluate if the activities of any contractor require New Source Review (NSR) permitting prior to the contractor performing such activities. If a contractor has their own permit, but it is determined that the contractor is under the common control of the taconite plant then the contractors permit does not shield the taconite plant or the contractor from the NSR and Part 70 modification regulations or enforcement actions.	Minn. R. 7007.0800, subp. 2
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

TABLE A: LIMITS AND OTHER REQUIREMENTS

01/14/00

Facility Name: Ispat Inland Steel Mining Co

Permit Number: 13700062 - 001

<p>Performance Tests: Performance testing for EU021-035 (GP006-010) and their associated control equipment and stacks shall be tested at a fired pellet production rate of greater than or equal to 340 long tons per hour. If a performance test is conducted at less than the applicable minimum rate given above the Permittee shall be given the opportunity to retest within 90 days of the subject test before process limits can be applied as specified in Minn. R. 7017.2025, subpart 3. Once a process limit has been applied the Permittee may at any time conduct a voluntary performance test at or above the applicable minimum rate in order to remove the process limit.</p>	<p>Minn. R. 7017.2025</p>
<p>The performance testing for EU001-020 (GP001-005) and their associated control equipment and stacks shall be tested at greater than or equal to 90% of the emission units rated capacity. If a performance test is conducted at less than the applicable minimum rate given above the Permittee shall be given the opportunity to retest within 90 days of the subject test before process limits can be applied as specified in Minn. R. 7017.2025, subpart 3. Once a process limit has been applied the Permittee may at any time conduct a voluntary performance test at or above the applicable minimum rate in order to remove the process limit.</p>	<p>Minn. R. 7017.2025</p>
<p>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.</p>	<p>Minn. R. 7019.1000, subp. 1</p>
<p>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:</p> <ol style="list-style-type: none"> 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. 	<p>Minn. R. 7019.1000, subp. 1</p>
<p>Breakdowns: 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.</p> <p>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.</p>	<p>Minn. R. 7019.1000, subp. 2</p>
<p>Shutdowns: 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.</p> <p>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.</p>	<p>Minn. R. 7019.1000, subp. 3</p>
<p>Monitoring Equipment Calibration: Annually calibrate all required monitoring equipment (any requirements applying to continuous emission monitors are listed separately in this permit).</p>	<p>Minn. R. 7007.0800, subp. 4(D)</p>
<p>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). If such a situation exists during the time when the process or monitoring parameter is normally recorded, the monitoring records shall identify the situation that precludes or invalidates that recording. The Permittee is not required to keep records of downtime unless the Permittee is normally required to make a recording of some operating or monitoring parameter during this situation.</p>	<p>Minn. R. 7007.0800, subp. 4(D)</p>
<p>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.</p>	<p>Minn. R. 7011.0020</p>

TABLE A: LIMITS AND OTHER REQUIREMENTS

01/14/00

Facility Name: Ispat Inland Steel Mining Co

Permit Number: 13700062 - 001

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
Emission Fees: due 60 days after receipt of an MPCA bill	Minn. R. 7002.0005 through Minn. R. 7002.0095
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 the monitoring sample, measurement, or report. Records which must be retained at this location include all calibration and maintenance records, all original recordings for continuous monitoring instrumentation, and copies of all reports required by the permit. Records must conform to the requirements listed in Minn. R. 7007.0800, subp. 5(A).	Minn. R. 7007.0800, subp. 5(C)
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)
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, nor subject to the citizen suit provisions of section 304 of the Clean Air Act, 42 U.S.C. section 7604.	Minn. R. 7030.0010 - 7030.0080
The Permittee shall comply with the General Conditions listed in Minn. R. 7007.0800, subp. 16	Minn. R. 7007.0800, subp. 16

TABLE A: LIMITS AND OTHER REQUIREMENTS

01/14/00

Facility Name: Ispat Inland Steel Mining Co

Permit Number: 13700062 - 001

Subject Item: GP 001 Secondary Crushing

- Associated Items:** CE 004 Venturi Scrubber
 CE 005 Venturi Scrubber
 EU 003 Secondary Crusher System
 EU 004 Secondary Crusher System
 EU 005 Secondary Crusher System
 SV 004
 SV 005

What to do	Why to do it
A. POLLUTANT LIMITS	hdr
Total Particulate Matter: less than or equal to 0.3 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. This emission limit applies individually to each emission unit in this group.	Minn. R. 7011.0715, subp. 1(A)
Total Particulate Matter: greater than or equal to 85 percent collection efficiency or higher for the pollution control equipment, the entire emission facility is in compliance with NAAQS and MAAQS, and the emission facility is located not less than one-fourth mile from any residence or public roadway. This emission limit applies individually to each emission unit in this group. (This is an alternative demonstration of compliance to Total Particulate Matter Limit.)	Minn. R. 7011.0715, subp. 3
Opacity: less than or equal to 20 percent opacity . This emission limit applies individually to each emission unit in this group.	Minn. R. 7011.0715, subp. 1(B)
B. POLLUTION CONTROL EQUIPMENT REQUIREMENTS	hdr
Gas Stream Pressure drop: Monitor and record for CE004 and CE005 once every day when in operation once the pressure gauges are installed. Once the pressure drop parameter ranges for these units are established they become an enforceable part of this permit. A deviation from the pressure drop range for either unit shall trigger a corrective action as detailed in the O&M plan.	Minn. R. 7007.0800, subp. 4(D); Minn. R. 7007.0800, subp. 14; Minn. R. 7007.0800, subp. 16(J)
Water Flow Rate: Monitor and record for CE004 and CE005 once every day when in operation once the scrubber water flow rate meters are installed. Once the water flow rate parameter ranges for these units are established, they become an enforceable part of this permit. A deviation from the range for either unit shall trigger a corrective action as detailed in the O&M plan.	Minn. R. 7007.0800, subp. 4(D); Minn. R. 7007.0800, subp. 14; Minn. R. 7007.0800, subp. 16(J)
CE004 and CE005 water flow rate and pressure drop monitor Equipment Installation: due 180 days after Permit Issuance	Minn. R. 7007.0800, subp. 4(D)

TABLE A: LIMITS AND OTHER REQUIREMENTS

01/14/00

Facility Name: Ispat Inland Steel Mining Co

Permit Number: 13700062 - 001

Subject Item: GP 002 Tertiary Crushing

- Associated Items:** CE 006 Venturi Scrubber
 CE 007 Venturi Scrubber
 CE 008 Venturi Scrubber
 EU 007 Tertiary Crusher System
 EU 008 Tertiary Crusher System
 EU 009 Tertiary Crusher System
 EU 010 Tertiary Crusher System
 SV 006
 SV 007
 SV 008

What to do	Why to do it
A. POLLUTANT LIMITS	hdr
Total Particulate Matter: less than or equal to 0.3 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. This emission limit applies individually to each emission unit in this group.	Minn. R. 7011.0715, subp. 1(A)
Total Particulate Matter: greater than or equal to 85 percent collection efficiency or higher for the pollution control equipment, the entire emission facility is in compliance with NAAQS and MAAQS, and the emission facility is located not less than one-fourth mile from any residence or public roadway. This emission limit applies individually to each emission unit in this group. (This is an alternative demonstration of compliance to Total Particulate Matter Limit.)	Minn. R. 7011.0715, subp. 3
Opacity: less than or equal to 20 percent opacity . This emission limit applies to each emission unit in this group.	Minn. R. 7011.0715, subp. 1(B)
B. POLLUTION CONTROL EQUIPMENT REQUIREMENTS	hdr
Gas Stream Pressure drop: Monitor and record for CE006, CE007 and CE008 once every day when in operation once the pressure gauges are installed. Once the pressure drop parameter ranges for these units are established they become an enforceable part of this permit. A deviation from the pressure drop range for any unit shall trigger a corrective action as detailed in the O&M plan.	Minn. R. 7007.0800, subp. 4(D); Minn. R. 7007.0800, subp. 14; Minn. R. 7007.0800, subp. 16(J)
Water Flow Rate: Monitor and record for CE006, CE007 and CE008 once every day when in operation once the scrubber water flow rate meters are installed. Once the water flow rate parameter ranges for these units are established they become an enforceable part of this permit. A deviation from the range for any unit shall trigger a corrective action as detailed in the O&M plan.	Minn. R. 7007.0800, subp. 4(D); Minn. R. 7007.0800, subp. 14; Minn. R. 7007.0800, subp. 16(J)
CE006, CE007 and CE008 water flow rate and pressure drop monitor Equipment Installation: due 180 days after Permit Issuance	Minn. R. 7007.0800, subp. 4(D)

TABLE A: LIMITS AND OTHER REQUIREMENTS

01/14/00

Facility Name: Ispat Inland Steel Mining Co

Permit Number: 13700062 - 001

Subject Item: GP 003 Fine ore drop, underfeed & inter. conveyor

Associated Items: CE 009 Fabric Filter - Low Temperature, i.e., T<180 Degrees F

CE 010 Fabric Filter - Low Temperature, i.e., T<180 Degrees F

EU 006 Outside Ore Transfer

EU 011 Fine Ore Drop Onto Two Underfeed Belts

EU 012 Fine Ore Drop Onto Intermediate Conveyor

SV 009

SV 010

What to do	Why to do it
A. POLLUTANT LIMITS	hdr
Total Particulate Matter: less than or equal to 0.3 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. This emission limit applies individually to each emission unit in this group.	Minn. R. 7011.0715, subp. 1(A)
Total Particulate Matter: greater than or equal to 85 percent collection efficiency or higher for the pollution control equipment, the entire emission facility is in compliance with NAAQS and MAAQS, and the emission facility is located not less than one-fourth mile from any residence or public roadway. This emission limit applies individually to each emission unit in this group. (This is an alternative demonstration of compliance to Total Particulate Matter Limit.)	Minn. R. 7011.0715, subp. 3
Opacity: less than or equal to 20 percent opacity . This emission limit applies individually to each emission unit in this group.	Minn. R. 7011.0715, subp. 1(B)
B. POLLUTION CONTROL EQUIPMENT REQUIREMENTS	hdr
Process monitoring: the visual emissions observer in the facility staff shall check stack visible emissions (opacity) for SV009 & 010 once daily using a checklist that at a minimum contains the information required in Appendix I.	Minn. R. 7007.0800, subp. 4(D); Minn. R. 7007.0800, subp. 14; Minn. R. 7007.0800, subp. 16(J)
Gas Stream Pressure drop: Monitor and record for CE009 and CE010 once every day when in operation once the pressure gauges are installed. Once the pressure drop parameter ranges for these units are established they become an enforceable part of this permit. A deviation from the pressure drop range for either unit shall trigger a corrective action as detailed in the O&M plan.	Minn. R. 7007.0800, subp. 4(D); Minn. R. 7007.0800, subp. 14; Minn. R. 7007.0800, subp. 16(J)
CE009 and CE010 pressure drop monitor Equipment Installation: due 180 days after Permit Issuance	Minn. R. 7007.0800, subp. 4(D)

TABLE A: LIMITS AND OTHER REQUIREMENTS

01/14/00

Facility Name: Ispat Inland Steel Mining Co

Permit Number: 13700062 - 001

Subject Item: GP 004 Fine ore drop, rod mill material handling

- Associated Items:** CE 011 Venturi Scrubber
 EU 013 Fine Ore Drop Onto Rod Mill Bin Conveyor
 EU 014 Fine Ore Drop Onto Rod Mill Bin Feeder
 EU 015 Fine Ore Drop Into Rod Mill Bin
 EU 016 Fine Ore Drop Onto Internal Conveyors
 EU 017 Fine Ore Drop Into Rod Mills
 SV 011

What to do	Why to do it
A. POLLUTANT LIMITS	hdr
Total Particulate Matter: less than or equal to 0.3 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. This emission limit applies individually to each emission unit in this group.	Minn. R. 7011.0715, subp. 1(A)
Total Particulate Matter: greater than or equal to 85 percent collection efficiency or higher for the pollution control equipment, the entire emission facility is in compliance with NAAQS and MAAQS, and the emission facility is located not less than one-fourth mile from any residence or public roadway. This emission limit applies individually to each emission unit in this group. (This is an alternative demonstration of compliance to Total Particulate Matter Limit.)	Minn. R. 7011.0715, subp. 3
Opacity: less than or equal to 20 percent opacity . This emission limit applies individually to each emission unit in this group.	Minn. R. 7011.0715, subp. 1(B)
B. POLLUTION CONTROL EQUIPMENT REQUIREMENTS	hdr
Gas Stream Pressure drop: Monitor and record for CE011 once every day when in operation once the pressure gauge is installed. Once the pressure drop parameter range for this unit is established it becomes an enforceable part of this permit. A deviation from the pressure drop range shall trigger a corrective action as detailed in the O&M plan.	Minn. R. 7007.0800, subp. 4(D); Minn. R. 7007.0800, subp. 14; Minn. R. 7007.0800, subp. 16(J)
Water Flow Rate: Monitor and record for CE011 once every day when in operation once the scrubber water flow rate meter is installed. Once the water flow rate parameter range for this unit is established it becomes an enforceable part of this permit. A deviation from the range shall trigger a corrective action as detailed in the O&M plan.	Minn. R. 7007.0800, subp. 4(D); Minn. R. 7007.0800, subp. 14; Minn. R. 7007.0800, subp. 16(J)
CE011 water flow rate and pressure drop monitor Equipment Installation: due 180 days after Permit Issuance	Minn. R. 7007.0800, subp. 4(D)
C. PERFORMANCE TESTING REQUIREMENTS	hdr
Performance Test: due 730 days after Permit Issuance to determine total Particulate Matter and Opacity Emissions	Minn. R. 7017.2020, subp. 1
Performance Test Pre-test Meeting: due 7 days before Performance Test	Minn. R. 7017.2030, subp. 4

TABLE A: LIMITS AND OTHER REQUIREMENTS

01/14/00

Facility Name: Ispat Inland Steel Mining Co

Permit Number: 13700062 - 001

Subject Item: GP 005 Binder shift bins and blending

Associated Items: CE 013 Fabric Filter - Low Temperature, i.e., T<180 Degrees F

EU 019 Binder Transfer to Binder Shift Bins

EU 020 Binder Blending

SV 013

What to do	Why to do it
A. POLLUTANT LIMITS	hdr
Total Particulate Matter: less than or equal to 0.3 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. This emission limit applies individually to each emission unit in this group.	Minn. R. 7011.0715, subp. 1(A)
Total Particulate Matter: greater than or equal to 85 percent collection efficiency or higher for the pollution control equipment, the entire emission facility is in compliance with NAAQS and MAAQS, and the emission facility is located not less than one-fourth mile from any residence or public roadway. This emission limit applies individually to each emission unit in this group. (This is an alternative demonstration of compliance to Total Particulate Matter Limit.)	Minn. R. 7011.0715, subp. 3
Opacity: less than or equal to 20 percent opacity . This emission limit applies individually to each emission unit in this group.	Minn. R. 7011.0715, subp. 1(B)
B. POLLUTION CONTROL EQUIPMENT REQUIREMENTS	hdr
Process monitoring: the visual emissions observer in the facility staff shall check stack visible emissions (opacity) for SV013 once daily using a checklist that at a minimum contains the information required in Appendix I.	Minn. R. 7007.0800, subp. 4(D); Minn. R. 7007.0800, subp. 14; Minn. R. 7007.0800, subp. 16(J)
Gas Stream Pressure Drop: Monitor and record for CE013 once every day when in operation once the pressure gauge is installed. Once the pressure drop parameter range for this unit is established it becomes an enforceable part of this permit. A deviation from the pressure drop range shall trigger a corrective action as detailed in the O&M plan.	Minn. R. 7007.0800, subp. 4(D); Minn. R. 7007.0800, subp. 14; Minn. R. 7007.0800, subp. 16(J)
CE013 pressure drop monitor Equipment Installation: due 180 days after Permit Issuance	Minn. R. 7007.0800, subp. 4(D)

TABLE A: LIMITS AND OTHER REQUIREMENTS

01/14/00

Facility Name: Ispat Inland Steel Mining Co

Permit Number: 13700062 - 001

Subject Item: GP 006 Pellet hearth layer conveyor, bin and gratefeed

- Associated Items:** CE 019 Wet Scrubber-Medium Efficiency w/o Lime
 EU 021 Pellet Drop Onto Internal Hearth Layer Conveyor
 EU 022 Drop Into Hearth Layer Bin
 EU 023 Grate Feed
 SV 019

What to do	Why to do it
A. POLLUTANT LIMITS	hdr
Total Particulate Matter: less than or equal to 0.3 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. This emission limit applies individually to each emission unit in this group.	Minn. R. 7011.0715, subp. 1(A)
Total Particulate Matter: greater than or equal to 85 percent collection efficiency or higher for the pollution control equipment, the entire emission facility is in compliance with NAAQS and MAAQS, and the emission facility is located not less than one-fourth mile from any residence or public roadway. This emission limit applies individually to each emission unit in this group. (This is an alternative demonstration of compliance to Total Particulate Matter Limit.)	Minn. R. 7011.0715, subp. 3
Opacity: less than or equal to 20 percent opacity . This emission limit applies individually to each emission unit in this group.	Minn. R. 7011.0715, subp. 1(B)
B. POLLUTION CONTROL EQUIPMENT REQUIREMENTS	hdr
Gas Stream Pressure drop: Monitor and record for CE019 once every day when in operation once the pressure gauge is installed. Once the pressure drop parameter range for this unit is established it becomes an enforceable part of this permit. A deviation from the pressure drop range shall trigger a corrective action as detailed in the O&M plan.	Minn. R. 7007.0800, subp. 4(D); Minn. R. 7007.0800, subp. 14; Minn. R. 7007.0800, subp. 16(J)
Water Flow Rate: Monitor and record for CE019 once every day when in operation once the scrubber water flow rate meter is installed. Once the water flow rate parameter range for this unit is established it becomes an enforceable part of this permit. A deviation from the range shall trigger a corrective action as detailed in the O&M plan.	Minn. R. 7007.0800, subp. 4(D); Minn. R. 7007.0800, subp. 14; Minn. R. 7007.0800, subp. 16(J)
CE019 water flow rate and pressure drop monitor Equipment Installation: due 180 days after Permit Issuance	Minn. R. 7007.0800, subp. 4(D)
C. PERFORMANCE TESTING REQUIREMENTS	hdr
Performance Test: due 730 days after Permit Issuance to determine total Particulate Matter and Opacity Emissions	Minn. R. 7017.2020, subp. 1
Performance Test Pre-test Meeting: due 7 days before Performance Test	Minn. R. 7017.2030, subp. 4

TABLE A: LIMITS AND OTHER REQUIREMENTS

01/14/00

Facility Name: Ispat Inland Steel Mining Co

Permit Number: 13700062 - 001

Subject Item: GP 007 Pellet HL Screen & Convy. to HL Bin

Associated Items: CE 020 Wet Scrubber-Medium Efficiency w/o Lime

EU 024 Drop Into Hearth Layer Screen

EU 025 Drop Onto Conveyor to Hearth Layer Bin

SV 020

What to do	Why to do it
A. POLLUTANT LIMITS	hdr
Total Particulate Matter: less than or equal to 0.3 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. This emission limit applies individually to each emission unit in this group.	Minn. R. 7011.0715, subp. 1(A)
Total Particulate Matter: greater than or equal to 85 percent collection efficiency or higher for the pollution control equipment, the entire emission facility is in compliance with NAAQS and MAAQS, and the emission facility is located not less than one-fourth mile from any residence or public roadway. This emission limit applies individually to each emission unit in this group. (This is an alternative demonstration of compliance to Total Particulate Matter Limit.)	Minn. R. 7011.0715, subp. 3
Opacity: less than or equal to 20 percent opacity . This emission limit applies individually to each emission unit in this group.	Minn. R. 7011.0715, subp. 1(B)
B. POLLUTION CONTROL EQUIPMENT REQUIREMENTS	hdr
Gas Stream Pressure drop: Monitor and record for CE020 once every day when in operation once the pressure gauge is installed. Once the pressure drop parameter range for this unit is established it becomes an enforceable part of this permit. A deviation from the pressure drop range shall trigger a corrective action as detailed in the O&M plan.	Minn. R. 7007.0800, subp. 4(D); Minn. R. 7007.0800, subp. 14; Minn. R. 7007.0800, subp. 16(J)
Water Flow Rate: Monitor and record for CE020 once every day when in operation once the scrubber water flow rate meter is installed. Once the water flow rate parameter range for this unit is established it becomes an enforceable part of this permit. A deviation from the range shall trigger a corrective action as detailed in the O&M plan.	Minn. R. 7007.0800, subp. 4(D); Minn. R. 7007.0800, subp. 14; Minn. R. 7007.0800, subp. 16(J)
CE020 water flow rate and pressure drop monitor Equipment Installation: due 180 days after Permit Issuance	Minn. R. 7007.0800, subp. 4(D)
C. PERFORMANCE TESTING REQUIREMENTS	hdr
Initial Performance Test: due 365 days after Permit Issuance to measure total PM and Opacity emissions from SV020	Minn. R. 7017.2020, subp. 1
Performance Test Pre-test Meeting: due 7 days before Initial Performance Test	Minn. R. 7017.2030, subp. 4

TABLE A: LIMITS AND OTHER REQUIREMENTS

01/14/00

Facility Name: Ispat Inland Steel Mining Co

Permit Number: 13700062 - 001

Subject Item: GP 008 Machine Discharge & Conveyor to Spl.Bin

Associated Items: CE 018 Wet Scrubber-Medium Efficiency w/o Lime

EU 027 Machine Discharge

EU 028 Drop Onto Conveyor to Pellet Splitter Bin

SV 018

What to do	Why to do it
A. POLLUTANT LIMITS	hdr
Total Particulate Matter: less than or equal to 0.3 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. This emission limit applies individually to each emission unit in this group.	Minn. R. 7011.0715, subp. 1(A)
Total Particulate Matter: greater than or equal to 85 percent collection efficiency or higher for the pollution control equipment, the entire emission facility is in compliance with NAAQS and MAAQS, and the emission facility is located not less than one-fourth mile from any residence or public roadway. This emission limit applies individually to each emission unit in this group. (This is an alternative demonstration of compliance to Total Particulate Matter Limit.)	Minn. R. 7011.0715, subp. 3
Opacity: less than or equal to 20 percent opacity . This emission limit applies individually to each emission unit in this group.	Minn. R. 7011.0715, subp. 1(B)
B. POLLUTION CONTROL EQUIPMENT REQUIREMENTS	hdr
Gas Stream Pressure drop: Monitor and record for CE018 once every day when in operation once the pressure gauge is installed. Once the pressure drop parameter range for this unit is established it becomes an enforceable part of this permit. A deviation from the pressure drop range shall trigger a corrective action as detailed in the O&M plan.	Minn. R. 7007.0800, subp. 4(D); Minn. R. 7007.0800, subp. 14; Minn. R. 7007.0800, subp. 16(J)
Water Flow Rate: Monitor and record for CE018 once every day when in operation once the scrubber water flow rate meter is installed. Once the water flow rate parameter range for this unit is established it becomes an enforceable part of this permit. A deviation from the range shall trigger a corrective action as detailed in the O&M plan.	Minn. R. 7007.0800, subp. 4(D); Minn. R. 7007.0800, subp. 14; Minn. R. 7007.0800, subp. 16(J)
CE018 water flow rate and pressure drop monitor Equipment Installation: due 180 days after Permit Issuance	Minn. R. 7007.0800, subp. 4(D)

TABLE A: LIMITS AND OTHER REQUIREMENTS

01/14/00

Facility Name: Ispat Inland Steel Mining Co

Permit Number: 13700062 - 001

Subject Item: GP 009 Drop into Spl. Bin & into Prod. Spl. Bin Conv.

Associated Items: CE 021 Wet Scrubber-Medium Efficiency w/o Lime

EU 029 Drop Into Pellet Splitter Bin

EU 030 Drop Onto Product Splitter Bin Conveyors

SV 021

What to do	Why to do it
A. POLLUTANT LIMITS	hdr
Total Particulate Matter: less than or equal to 0.3 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. This emission limit applies individually to each emission unit in this group.	Minn. R. 7011.0715, subp. 1(A)
Total Particulate Matter: greater than or equal to 85 percent collection efficiency or higher for the pollution control equipment, the entire emission facility is in compliance with NAAQS and MAAQS, and the emission facility is located not less than one-fourth mile from any residence or public roadway. This emission limit applies individually to each emission unit in this group. (This is an alternative demonstration of compliance to Total Particulate Matter Limit.)	Minn. R. 7011.0715, subp. 3
Opacity: less than or equal to 20 percent opacity . This emission limit applies individually to each emission unit in this group.	Minn. R. 7011.0715, subp. 1(B)
B. POLLUTION CONTROL EQUIPMENT REQUIREMENTS	hdr
Gas Stream Pressure drop: Monitor and record for CE021 once every day when in operation once the pressure gauge is installed. Once the pressure drop parameter range for this unit is established it becomes an enforceable part of this permit. A deviation from the pressure drop range shall trigger a corrective action as detailed in the O&M plan.	Minn. R. 7007.0800, subp. 4(D); Minn. R. 7007.0800, subp. 14; Minn. R. 7007.0800, subp. 16(J)
Water Flow Rate: Monitor and record for CE021 once every day when in operation once the scrubber water flow rate meter is installed. Once the water flow rate parameter range for this unit is established it becomes an enforceable part of this permit. A deviation from the range shall trigger a corrective action as detailed in the O&M plan.	Minn. R. 7007.0800, subp. 4(D); Minn. R. 7007.0800, subp. 14; Minn. R. 7007.0800, subp. 16(J)
CE021 water flow rate and pressure drop monitor Equipment Installation: due 180 days after Permit Issuance	Minn. R. 7007.0800, subp. 4(D)
C. PERFORMANCE TESTING REQUIREMENTS	hdr
Performance Test: due 1,095 days after Permit Issuance to determine total Particulate Matter and Opacity Emissions	Minn. R. 7017.2020, subp. 1
Performance Test Pre-test Meeting: due 7 days before Performance Test	Minn. R. 7017.2030, subp. 4

TABLE A: LIMITS AND OTHER REQUIREMENTS

01/14/00

Facility Name: Ispat Inland Steel Mining Co

Permit Number: 13700062 - 001

Subject Item: GP 010 Fluxstone Crushing and Handling

Associated Items: EU 034 Fluxstone crushing

EU 035 Fluxstone handling

What to do	Why to do it
A. POLLUTANT LIMITS	hdr
Total Particulate Matter: less than or equal to 0.05 grams/dry standard cubic meter . This emission limit applies individually to all emission units in this group.	40 CFR pt. 60.672 (a)(1)
Opacity: less than or equal to 7 percent opacity , unless the stack emissions are discharged from an affected facility using a wet scrubbing control device. Facilities using a wet scrubber must comply with the reporting provisions contained in 40 CFR Part 60.676(c)(d) and (e).	40 CFR Part 60.672(a)(2)
Total Particulate Matter: less than or equal to 0.3 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. This emission limit applies individually to each emission unit in this group.	Minn. R. 7011.0715, subp. 1(A)
Total Particulate Matter: greater than or equal to 85 percent collection efficiency or higher for the pollution control equipment, the entire emission facility is in compliance with NAAQS and MAAQS, and the emission facility is located not less than one-fourth mile from any residence or public roadway. This emission limit applies individually to each emission unit in this group. (This is an alternative demonstration of compliance to Total Particulate Matter Limit.)	Minn. R. 7011.0715, subp. 3
Opacity: less than or equal to 20 percent opacity . This emission limit applies individually to each emission unit in this group.	Minn. R. 7011.0715, subp. 1(B)

TABLE A: LIMITS AND OTHER REQUIREMENTS

01/14/00

Facility Name: Ispat Inland Steel Mining Co
 Permit Number: 13700062 - 001

Subject Item: GP 011 Fugitive Sources

- Associated Items:** FS 007 PM10 - Haulage Truck Operation
 FS 008 PM10 - Tailings Truck Operation
 FS 009 PM10 - Wind Erosion of Laurentian Pit Dump
 FS 010 PM10 - Wind Erosion of Minorca Pit Dump
 FS 011 PM10 - Wind Erosion of Tailings Basin Beach
 FS 012 PM10 - Ore Dump Into Primary Crusher
 FS 013 PM10 - Coarse Ore Pile Drop
 FS 014 PM10 - Wind Erosion of Coarse Ore Pile
 FS 015 PM10 - Fine Ore Pile Drop
 FS 016 PM10 - Wind Erosion of Fine Ore Pile
 FS 017 PM10 - Taconite Pellet Pile Drop
 FS 018 PM10 - Wind Erosion of Taconite Pile
 FS 019 PM10 - Pellet Loadout Drop
 FS 020 PM10 - Wind Erosion of Fluxstone Pile

What to do	Why to do it
<p>Fugitive Control Plan: Comply with the Fugitive Control Plan. Follow the actions and recordkeeping specified in the Fugitive Control Plan. The plan may be amended with the Commissioners approval. If the Commissioner determines the Permittee is out of compliance with Minn. R. 7011.0150, or Fugitive Control Plan, then the Permittee may be required to amend the Fugitive Control Plan.</p> <p>Prior to approval of the Fugitive Control Plan the Permittee shall observe fugitive emissions from FS007-020 at least once daily and take corrective action to control emissions in excess of Minn. R. 7011.0150.0</p>	<p>Minn. R. 7011.0150</p>

TABLE A: LIMITS AND OTHER REQUIREMENTS

01/14/00

Facility Name: Ispat Inland Steel Mining Co

Permit Number: 13700062 - 001

Subject Item: EU 001 Primary Crusher System

Associated Items: CE 001 Venturi Scrubber

CE 002 Fabric Filter - Low Temperature, i.e., T<180 Degrees F

SV 001

SV 002

What to do	Why to do it
A. POLLUTANT LIMITS	hdr
Total Particulate Matter: less than or equal to 0.3 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735.	Minn. R. 7011.0715, subp. 1(A)
Total Particulate Matter: greater than or equal to 85 percent collection efficiency or higher for the pollution control equipment, the entire emission facility is in compliance with NAAQS and MAAQS, and the emission facility is located not less than one-fourth mile from any residence or public roadway. (This is an alternative demonstration of compliance to Total Particulate Matter Limit.)	Minn. R. 7011.0715, subp. 3
Opacity: less than or equal to 20 percent opacity	Minn. R. 7011.0715, subp. 1(B)
B. POLLUTION CONTROL EQUIPMENT REQUIREMENTS	hdr
Process monitoring: the visual emissions observer in the facility staff shall check stack visible emissions (opacity) for SV002 once daily using a checklist that at a minimum contains the information required in Appendix I.	Minn. R. 7007.0800, subp. 4(D); Minn. R. 7007.0800, subp. 14; Minn. R. 7007.0800, subp. 16(J)
Gas Stream Pressure drop: Monitor and record for CE001 and CE002 once every day when in operation once the pressure gauge is installed. Once the pressure drop parameter ranges for these units are established they become an enforceable part of this permit. A deviation from the pressure drop range for either unit shall trigger a corrective action as detailed in the O&M plan.	Minn. R. 7007.0800, subp. 4(D); Minn. R. 7007.0800, subp. 14; Minn. R. 7007.0800, subp. 16(J)
Water Flow Rate: Monitor and record for CE001 once every day when in operation once the scrubber water flow rate meter is installed. Once the water flow rate parameter range for this unit is established it becomes an enforceable part of this permit. A deviation from the range shall trigger a corrective action as detailed in the O&M plan.	Minn. R. 7007.0800, subp. 4(D); Minn. R. 7007.0800, subp. 14; Minn. R. 7007.0800, subp. 16(J)
Water flow rate (CE001) and pressure drop monitor (CE001&CE002) Equipment Installation: due 180 days after Permit Issuance	Minn. R. 7007.0800, subp. 4(D)
C. PERFORMANCE TESTING REQUIREMENTS	hdr
Initial Performance Test: due 180 days after Permit Issuance to measure total Particulate Matter and Opacity emissions from both SV001 and SV002	Minn. R. 7017.2020, subp. 1
Performance Test Pre-test Meeting: due 7 days before Initial Performance Test	Minn. R. 7017.2030, subp. 4

TABLE A: LIMITS AND OTHER REQUIREMENTS

01/14/00

Facility Name: Ispat Inland Steel Mining Co

Permit Number: 13700062 - 001

Subject Item: EU 002 Drop Onto Coarse Ore Pile Conveyor

Associated Items: CE 003 Fabric Filter - Low Temperature, i.e., T<180 Degrees F
SV 003

What to do	Why to do it
A. POLLUTANT LIMITS	hdr
Total Particulate Matter: less than or equal to 0.3 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735.	Minn. R. 7011.0715, subp. 1(A)
Total Particulate Matter: greater than or equal to 85 percent collection efficiency or higher for the pollution control equipment, the entire emission facility is in compliance with NAAQS and MAAQS, and the emission facility is located not less than one-fourth mile from any residence or public roadway. (This is an alternative demonstration of compliance to Total Particulate Matter Limit.)	Minn. R. 7011.0715, subp. 3
Opacity: less than or equal to 20 percent opacity	Minn. R. 7011.0715, subp. 1(B)
B. POLLUTION CONTROL EQUIPMENT REQUIREMENTS	hdr
Process monitoring: the visual emissions observer in the facility staff shall check stack visible emissions (opacity) for SV003 once daily using a checklist that at a minimum contains the information required in Appendix I.	Minn. R. 7007.0800, subp. 4(D); Minn. R. 7007.0800, subp. 14; Minn. R. 7007.0800, subp. 16(J)
Gas Stream Pressure drop: Monitor and record for CE003 once every day when in operation once the pressure gauge is installed. Once the pressure drop parameter range for this unit is established it becomes an enforceable part of this permit. A deviation from the pressure drop range shall trigger a corrective action as detailed in the O&M plan.	Minn. R. 7007.0800, subp. 4(D); Minn. R. 7007.0800, subp. 14; Minn. R. 7007.0800, subp. 16(J)
CE003 pressure drop monitor Equipment Installation: due 180 days after Permit Issuance	Minn. R. 7007.0800, subp. 4(D)

TABLE A: LIMITS AND OTHER REQUIREMENTS

01/14/00

Facility Name: Ispat Inland Steel Mining Co

Permit Number: 13700062 - 001

Subject Item: EU 018 Binder Transfer to Storage Silo

Associated Items: CE 012 Fabric Filter - Low Temperature, i.e., T<180 Degrees F
SV 012

What to do	Why to do it
A. POLLUTANT LIMITS	hdr
Total Particulate Matter: less than or equal to 0.3 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735.	Minn. R. 7011.0715, subp. 1(A)
Total Particulate Matter: greater than or equal to 85 percent collection efficiency or higher for the pollution control equipment, the entire emission facility is in compliance with NAAQS and MAAQS, and the emission facility is located not less than one-fourth mile from any residence or public roadway. (This is an alternative demonstration of compliance to Total Particulate Matter Limit.)	Minn. R. 7011.0715, subp. 3
Opacity: less than or equal to 20 percent opacity	Minn. R. 7011.0715, subp. 1(B)
B. POLLUTION CONTROL EQUIPMENT REQUIREMENTS	hdr
Process monitoring: the visual emissions observer in the facility staff shall check stack visible emissions (opacity) for SV012 once daily using a checklist that at a minimum contains the information required in Appendix I.	Minn. R. 7007.0800, subp. 4(D); Minn. R. 7007.0800, subp. 14; Minn. R. 7007.0800, subp. 16(J)
Gas Stream Pressure drop: Monitor and record for CE012 once every day when in operation once the pressure gauge is installed. Once the pressure drop parameter range for this unit is established it becomes an enforceable part of this permit. A deviation from the pressure drop range shall trigger a corrective action as detailed in the O&M plan.	Minn. R. 7007.0800, subp. 4(D); Minn. R. 7007.0800, subp. 14; Minn. R. 7007.0800, subp. 16(J)
CE012 pressure drop monitor Equipment Installation: due 180 days after Permit Issuance	Minn. R. 7007.0800, subp. 4(D)

TABLE A: LIMITS AND OTHER REQUIREMENTS

01/14/00

Facility Name: Ispat Inland Steel Mining Co

Permit Number: 13700062 - 001

Subject Item: EU 026 Indurating Machine

- Associated Items:** CE 014 Venturi Scrubber
 CE 015 Venturi Scrubber
 CE 016 Venturi Scrubber
 CE 017 Venturi Scrubber
 SV 014
 SV 015
 SV 016
 SV 017

What to do	Why to do it
A. POLLUTANT/PROCESS LIMITS	hdr
Nitrogen Oxides: less than or equal to 1088 lbs/hour . The sum of the NOx emissions from all four stacks (SV014-017) shall not exceed 1088 lbs/hour.	40 CFR pt. 52.21 BACT
Fuel Usage: less than or equal to 270 million Btu's/hour (primary+auxiliary burners total). The primary burners (firing zone burners) may only burn natural gas and #2 fuel oil. The auxiliary burners (preheat burners) may only burn natural gas.	40 CFR pt. 52.21 BACT
Volatile Organic Compounds: less than or equal to 9.1 lbs/hour	To keep the 1987 modification minor for 40 CFR pt. 52.21
Carbon Monoxide: less than or equal to 37.2 lbs/hour using 3-hour Average	To keep the 1987 modification minor for 40 CFR pt. 52.21
Total Particulate Matter: less than or equal to 0.3 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735.	Minn. R. 7011.0610, subp. 1(A)(1) & Minn. R. 7011.0715, subp. 1(A)
Total Particulate Matter: greater than or equal to 85 percent collection efficiency or higher for the pollution control equipment, the entire emission facility is in compliance with NAAQS and MAAQS, and the emission facility is located not less than one-fourth mile from any residence or public roadway. (This is an alternative demonstration of compliance to Total Particulate Matter Limit.)	Minn. R. 7011.0610, subp. 1(A)(1) & Minn. R. 7011.0715, subp. 3
Opacity: less than or equal to 20 percent opacity except for one six-minute period within any one-hour period of up to 60 percent opacity.	Minn. R. 7011.0610, subp. 1(A)(2)
Sulfur Dioxide: less than or equal to 2 lbs/million Btu heat input when a liquid fossil fuel is burned.	Minn. R. 7011.0610, subp. 2(B)
B. POLLUTION CONTROL EQUIPMENT REQUIREMENTS	hdr
Gas Stream Pressure drop: Monitor and record for CE014-017 once every day when in operation once the pressure gauges are installed. Once the pressure drop parameter ranges for these units are established they become an enforceable part of this permit. A deviation from the pressure drop range for any unit shall trigger a corrective action as detailed in the O&M plan.	Minn. R. 7007.0800, subp. 4(D); Minn. R. 7007.0800, subp. 14; Minn. R. 7007.0800, subp. 16(J)
Water Flow Rate: Monitor and record for CE014-017 once every day when in operation once the scrubber water flow rate meters are installed. Once the water flow rate parameter ranges for these units are established they become an enforceable part of this permit. A deviation from the range for any unit shall trigger a corrective action as detailed in the O&M plan.	Minn. R. 7007.0800, subp. 4(D); Minn. R. 7007.0800, subp. 14; Minn. R. 7007.0800, subp. 16(J)
CE014-017 water flow rate and pressure drop monitors Equipment Installation: due 180 days after Permit Issuance	Minn. R. 7007.0800, subp. 4(D)
C. PERFORMANCE TESTING REQUIREMENTS (PM, OPACITY)	hdr
Performance Test: due 1,095 days after Permit Issuance to determine total Particulate Matter and Opacity Emissions from each stack	Minn. R. 7017.2020, subp. 1
Performance Test Pre-test Meeting: due 7 days before Performance Test for Particulate Matter and Opacity	Minn. R. 7017.2030, subp. 4
D. PERFORMANCE TESTING REQUIREMENTS (NOX)	hdr
Performance Test: due 180 days after Permit Issuance to determine NOx emissions. The performance test shall be simultaneous from all four stacks (SV014-017). NOx performance test number one.	Minn. R. 7017.2020, subp. 1
Performance Test: due 365 days after Permit Issuance to determine NOx emissions. This test may be conducted sequentially for each stack. NOx performance test number two.	Minn. R. 7017.2020, subp. 1
Performance Test: due 730 days after Permit Issuance to determine NOx emissions. NOx performance test number three.	Minn. R. 7017.2020, subp. 1

TABLE A: LIMITS AND OTHER REQUIREMENTS

01/14/00

Facility Name: Ispat Inland Steel Mining Co

Permit Number: 13700062 - 001

<p>Performance Test: due within 360 days of third NOx performance test required by this permit if the average of the first three NOx performance tests is greater than 80.0% and less than 90.0% of the NOx emission limit and annually thereafter for the life of the permit.</p>	<p>Minn. R. 7017.2020, subp. 1</p>
<p>Performance Test: due within 180 days of third NOx performance test required by this permit if the average of the first three NOx performance tests is greater than 90.0% of the NOx emission limit and every 6 months thereafter for the life of the permit.</p>	<p>Minn. R. 7017.2020, subp. 1</p>
<p>Performance Test: due once every 730 days after the third NOx performance test required by this permit if the average of the first three NOx performance tests is less than or equal to 80.0% of the NOx emission limit.</p>	<p>Minn. R. 7017.2020, subp. 1</p>
<p>If the average total NOx emission rate from SV014-017 exceeds (1033.6 lb/hr) 95% of the NOx emission limit in any 12 month period, the Permittee will submit a plan for Agency review and approval within 120 days of the most recent performance test to implement further monitoring that is technically and economically feasible based on current technologies. This monitoring could include Continuous Emission Monitors (CEMS), Parametric Emission Monitoring (PEMS) or other parametric monitoring which would allow the Permittee and the Agency to reliably and accurately determine the NOx emissions from SV014-017.</p>	<p>Minn. R. 7007.0800, subp. 2; 7017.1000, subp. 1</p>
<p>If the BTU/Long Ton of Pellets exceeds 550,000 BTU/long tons of pellets based on a 12 month rolling average the Permittee shall perform a NOx performance test within 120 days of the exceedence. This rolling average will exclude days where the ambient temperatures are less than -20 degrees fahrenheit at the nearest weather station. This rolling average will also exclude days where the furnace is in a start up mode and the production during start up is less than 250 long tons of pellets per hour.</p>	<p>Minn. R. 7017.2020, subp. 1</p>
<p>The first NOx test will be simultaneous testing for all four stacks. The second test shall be sequential testing. Emission factors, in units of lbs NOx/MMBtu and lbs NOx/LT of pellets produced, shall be developed for the simultaneous and sequential testing.</p> <p>If the difference in either the lbs NOx/MMBtu or lbs NOx/LT of pellets produced between the two NOx tests exceeds 10% and if the total NOx emissions from either test exceeds 80% of the NOx limit then the Permittee shall conduct simultaneous testing for future tests (NOx performance tests conducted after NOx performance test number two).</p>	<p>Minn. R. 7017.2020, subp. 1, Minn. R. 7007.0800, subp. 2</p>
<p>Performance Test Pre-test Meeting: due 7 days before Performance Test for NOx</p>	<p>Minn. R. 7017.2030, subp. 4</p>

TABLE A: LIMITS AND OTHER REQUIREMENTS

01/14/00

Facility Name: Ispat Inland Steel Mining Co

Permit Number: 13700062 - 001

Subject Item: EU 031 Drop In PI-P2 Transfer House

Associated Items: CE 024 Wet Scrubber-Medium Efficiency w/o Lime
SV 024

What to do	Why to do it
A. POLLUTANT LIMITS	hdr
Total Particulate Matter: less than or equal to 0.3 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735.	Minn. R. 7011.0715, subp. 1(A)
Total Particulate Matter: greater than or equal to 85 percent collection efficiency or higher for the pollution control equipment, the entire emission facility is in compliance with NAAQS and MAAQS, and the emission facility is located not less than one-fourth mile from any residence or public roadway. (This is an alternative demonstration of compliance to Total Particulate Matter Limit.)	Minn. R. 7011.0715, subp. 3
Opacity: less than or equal to 20 percent opacity	Minn. R. 7011.0715, subp. 1(B)
B. POLLUTION CONTROL EQUIPMENT REQUIREMENTS	hdr
Gas Stream Pressure drop: Monitor and record for CE024 once every day when in operation once the pressure gauge is installed. Once the pressure drop parameter range for this unit is established it becomes an enforceable part of this permit. A deviation from the pressure drop range shall trigger a corrective action as detailed in the O&M plan.	Minn. R. 7007.0800, subp. 4(D); Minn. R. 7007.0800, subp. 14; Minn. R. 7007.0800, subp. 16(J)
Water Flow Rate: Monitor and record for CE024 once every day when in operation once the scrubber water flow rate meter is installed. Once the water flow rate parameter range for this unit is established it becomes an enforceable part of this permit. A deviation from the range shall trigger a corrective action as detailed in the O&M plan.	Minn. R. 7007.0800, subp. 4(D); Minn. R. 7007.0800, subp. 14; Minn. R. 7007.0800, subp. 16(J)
CE024 water flow rate and pressure drop monitor Equipment Installation: due 180 days after Permit Issuance	Minn. R. 7007.0800, subp. 4(D)
C. PERFORMANCE TESTING REQUIREMENTS	hdr
Initial Performance Test: due 180 days after Permit Issuance to measure total PM and Opacity 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

TABLE A: LIMITS AND OTHER REQUIREMENTS

01/14/00

Facility Name: Ispat Inland Steel Mining Co

Permit Number: 13700062 - 001

Subject Item: EU 032 Drop Onto P3 Pellet Pile Underfeed Conveyor

Associated Items: CE 022 Fabric Filter - Low Temperature, i.e., T<180 Degrees F
SV 022

What to do	Why to do it
A. POLLUTANT LIMITS	hdr
Total Particulate Matter: less than or equal to 0.3 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735.	Minn. R. 7011.0715, subp. 1(A)
Total Particulate Matter: greater than or equal to 85 percent collection efficiency or higher for the pollution control equipment, the entire emission facility is in compliance with NAAQS and MAAQS, and the emission facility is located not less than one-fourth mile from any residence or public roadway. (This is an alternative demonstration of compliance to Total Particulate Matter Limit.)	Minn. R. 7011.0715, subp. 3
Opacity: less than or equal to 20 percent opacity	Minn. R. 7011.0715, subp. 1(B)
B. POLLUTION CONTROL EQUIPMENT REQUIREMENTS	hdr
Process monitoring: the visual emissions observer in the facility staff shall check stack visible emissions (opacity) for SV022 once daily using a checklist that at a minimum contains the information required in Appendix I.	Minn. R. 7007.0800, subp. 4(D); Minn. R. 7007.0800, subp. 14; Minn. R. 7007.0800, subp. 16(J)
Gas Stream Pressure drop: Monitor and record for CE022 once every day when in operation once the pressure gauge is installed. Once the pressure drop parameter range for this unit is established it become an enforceable part of this permit. A deviation from the pressure drop range shall trigger a corrective action as detailed in the O&M plan.	Minn. R. 7007.0800, subp. 4(D); Minn. R. 7007.0800, subp. 14; Minn. R. 7007.0800, subp. 16(J)
CE022 pressure drop monitor Equipment Installation: due 180 days after Permit Issuance	Minn. R. 7007.0800, subp. 4(D)

TABLE A: LIMITS AND OTHER REQUIREMENTS

01/14/00

Facility Name: Ispat Inland Steel Mining Co

Permit Number: 13700062 - 001

Subject Item: EU 033 Pellet Loadout Bin Transfer Point**Associated Items:** CE 023 Dust Suppression by Water Spray

What to do	Why to do it
A. POLLUTANT LIMITS	hdr
Opacity: less than or equal to 20 percent opacity	Minn. R. 7011.0715, subp. 1(B)

TABLE A: LIMITS AND OTHER REQUIREMENTS

01/14/00

Facility Name: Ispat Inland Steel Mining Co

Permit Number: 13700062 - 001

Subject Item: EU 036 Emergency Generator**Associated Items:** CE 026 Other

SV 026

What to do	Why to do it
Opacity: less than or equal to 20 percent opacity once operating temperatures have been attained.	Minn. R. 7011.2300, subp. 1
Sulfur Dioxide: less than or equal to 0.5 lbs/million Btu heat input unless an alternative limit is established in an air emission permit after demonstration through modeling of compliance with the sulfur dioxide standards in part 7009.0080.	Minn. R. 7011.2300, subp. 2

TABLE A: LIMITS AND OTHER REQUIREMENTS

01/14/00

Facility Name: Ispat Inland Steel Mining Co

Permit Number: 13700062 - 001

Subject Item: EU 037 Emergency Fire Pump**Associated Items:** CE 027 Other

SV 027

What to do	Why to do it
Opacity: less than or equal to 20 percent opacity once operating temperatures have been attained.	Minn. R. 7011.2300, subp. 1
Sulfur Dioxide: less than or equal to 0.5 lbs/million Btu heat input unless an alternative limit is established in an air emission permit after demonstration through modeling of compliance with the sulfur dioxide standards in part 7009.0080.	Minn. R. 7011.2300, subp. 2

TABLE B: SUBMITTALS

01/14/00

Facility Name: Ispat Inland Steel Mining Co
Permit Number: 13700062 - 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

01/14/00

Facility Name: Ispat Inland Steel Mining Co

Permit Number: 13700062 - 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
Attainment Demonstration Plan	due 90 days after Computer Dispersion Modeling Results The attainment demonstration plan is due 90 days after the refined modeling results are submitted if the refined modeling results do not demonstrate attainment with the NAAQS and MAAQS. The plan may include an ambient air monitoring network, installation of pollution control equipment, and/or further refinements to the computer modeling.	Total Facility
Computer Dispersion Modeling Results	due 120 days after Notification that the last of the taconite plant Title V permits in Minnesota has been issued. The modeling required by this condition is the refined modeling.	Total Facility
Fugitive Control Plan	due 120 days after Permit Issuance for review and approval by the Commissioner. The plan shall identify all fugitive emission sources, primary and contingent control measures and practices, and records kept. The plan at a minimum shall contain at least daily monitoring of FS007-020. The plan will include a statement of objectives, fugitive emission sources, operating and control measures, dust suppressant application description, corrective actions, training, and records. The Commissioner may require additions or changes to the Fugitive Emission Control Plan when granting approval. The Permittee will be given an opportunity to comment on any required additions or changes to the plan before the Commissioner grants approval of the plan.	Total Facility
Operation and Maintenance Plan	due 120 days after Permit Issuance. The O&M plan shall identify all air pollution control equipment, a preventative maintenance program for that equipment, description of corrective actions to be taken in the event of a malfunction, breakdown or deviation outside operating parameter ranges, description of the employee training program, and the records kept to demonstrate plan implementation. The Commissioner may require additions or changes to the O & M plan when granting approval. The Permittee will be given an opportunity to comment on any required additions or changes to the plan before the Commissioner grants approval of the plan.	Total Facility
Performance Test Notification (written)	due 30 days before Initial Performance Test	EU001, EU031, GP007
Performance Test Notification (written)	due 30 days before Performance Test	GP004, GP006, GP009
Performance Test Notification (written)	due 30 days before Performance Test for NOx	EU026
Performance Test Notification (written)	due 30 days before Performance Test for Particulate Matter and Opacity	EU026
Performance Test Plan	due 30 days before Initial Performance Test	EU001, EU031, GP007
Performance Test Plan	due 30 days before Performance Test	GP004, GP006, GP009
Performance Test Plan	due 30 days before Performance Test for NOx. The plan must contain detailed information on what furnace operating parameters will be monitored during the actual performance test runs. Every effort should be made to collect furnace operating parameter data during the actual runs instead of using daily averages.	EU026
Performance Test Plan	due 30 days before Performance Test for Particulate Matter and Opacity	EU026
Performance Test Report - Microfiche Copy	due 105 days after Initial Performance Test	EU001, EU031, GP007

TABLE B: ONE TIME SUBMITTALS OR NOTIFICATIONS

01/14/00

Facility Name: Ispat Inland Steel Mining Co

Permit Number: 13700062 - 001

Performance Test Report - Microfiche Copy	due 105 days after Performance Test	GP004, GP006, GP009
Performance Test Report - Microfiche Copy	due 105 days after Performance Test for NOx	EU026
Performance Test Report - Microfiche Copy	due 105 days after Performance Test for Particulate Matter and Opacity	EU026
Performance Test Report	due 45 days after Initial Performance Test	EU001, EU031, GP007
Performance Test Report	due 45 days after Performance Test	GP004, GP006, GP009
Performance Test Report	due 45 days after Performance Test for NOx	EU026
Performance Test Report	due 45 days after Performance Test for Particulate Matter and Opacity	EU026
Testing Frequency Plan	due 60 days after Initial Performance Test for Particulate Matter and Opacity	EU001, EU031, GP007
The Permittee shall complete the monitoring equipment debugging and establishment of parameter ranges for normal operation and provide the parameter ranges along with rationale of their development in a permit amendment application submittal to incorporate the parameter ranges into this permit. The rationale for choosing these ranges shall include the control equipment manufacturer's suggested ranges and any reasons for deviating from the manufacturer's recommendations. The permit amendment application Submittal	due 365 days after Permit Issuance	EU001, EU002, EU018, EU026, EU031, EU032, GP001, GP003, GP004, GP005, GP006
The Permittee shall complete the monitoring equipment debugging and establishment of parameter ranges for normal operation and provide the parameter ranges along with rationale of their development in a permit amendment application submittal to incorporate the parameter ranges into this permit. The rationale for choosing these ranges shall include the control equipment manufacturer's suggested ranges and any reasons for deviating from the manufacturer's recommendations. The permit amendment application Submittal	due 365 days after Permit Issuance	GP007
The Permittee shall complete the monitoring equipment debugging and establishment of parameter ranges for normal operation and provide the parameter ranges along with rationale of their development in a permit amendment application submittal to incorporate the parameter ranges into this permit. The rationale for choosing these ranges shall include the control equipment manufacturer's suggested ranges and any reasons for deviating from the manufacturer's recommendations. The permit amendment application Submittal	due 365 days after Permit Issuance	GP008
The Permittee shall complete the monitoring equipment debugging and establishment of parameter ranges for normal operation and provide the parameter ranges along with rationale of their development in a permit amendment application submittal to incorporate the parameter ranges into this permit. The rationale for choosing these ranges shall include the control equipment manufacturer's suggested ranges and any reasons for deviating from the manufacturer's recommendations. The permit amendment application Submittal	due 365 days after Permit Issuance	GP009

TABLE B: RECURRENT SUBMITTALS

01/14/00

Facility Name: Ispat Inland Steel Mining Co

Permit Number: 13700062 - 001

What to send	When to send	Portion of Facility Affected
Semiannual Deviations Report	due 30 days after end of each calendar half-year following Permit Issuance	Total Facility
Compliance Certification	due 30 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 U.S. EPA regional office in Chicago. This report covers all deviations experienced during the calendar year.	Total Facility
Emissions Inventory Report	due 91 days after end of each calendar year following Permit Issuance	Total Facility

TECHNICAL SUPPORT DOCUMENT
For
AIR EMISSION PERMIT NO. 13700062-001

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 and Operator Address and Phone Number (list both if different)	Facility Address (SIC Code: 1011)
Ispat Inland Steel Mining Company US Highway 53 N Virginia St. Louis County 218/749-5910	US Highway 53 N Virginia St. Louis County

1.2. Description of the facility:

Ispat Inland Steel Mining Company owns and operates a taconite pellet production plant. There are three main areas where emissions are created and these are the mine, tailings basin and pellet plant. Emissions from the mine are fugitive emissions created from blasting, coarse ore loading and unloading, overburden loading and unloading and haul truck traffic on unpaved roads and are primarily Particulate Matter (PM) and Particulate Matter less than 10 microns (PM₁₀).

Emissions from the tailings basin are fugitive emissions created by tailing basin dike construction, truck traffic on unpaved roads and wind erosion of exposed tailings beaches and are primarily PM and PM₁₀. Emissions from the pellet plant consist of point source emissions from crushing, concentrating, and agglomerating operations which primarily create PM and PM₁₀ emissions. Inland has one induration furnace that creates emissions of PM, PM₁₀, SO₂, NO_x, CO and other noncriteria pollutants such as Hazardous Air Pollutants (HAPS). HAPS emissions tend to be metals and products of combustion. Fugitive emissions from the pellet plant are from pellet loadout and wind erosion of fine particles from the pellet storage piles and are PM and PM₁₀.

Ispat Inland Steel uses a variety of bag houses and wet scrubbers to control emissions from the point sources located in the pellet plant. Water and chemical dust suppressants are applied to haul roads and other fugitive sources to reduce PM and PM₁₀ emissions when weather permits.

1.3 Description of any changes allowed with this permit issuance

The Title V permit requires Inland to conduct modeling, comprehensive performance testing, implement an updated control equipment Operation and Maintenance (O&M) plan and an updated fugitive emissions control plan that will have a significant positive environmental impact.

This TitleV permit will give Inland a new BACT emission limit of 1088 lb/hr for NO_x. For a full discussion on the NO_x BACT limit and the PSD analyses please refer to section 3 of this document and its referenced attachments.

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 No. and Issuance Date	Action Authorized
Amendment No. 1 to 257-86-OT-1	Installation of auxiliary burners in the induration furnace and fluxstone processing and handling equipment to produce flux pellets. This modification was major and underwent Prevention of Significant Deterioration (PSD) review.

1.5 Permit Application Materials:

The Permittee submitted several permit applications as follows (with dates as marked, NOT as received by MPCA):

Submittal	Dated	Key Information
Original Application	January 13, 1995	Complete Application
Addendum 1	July 31, 1995	Supplemental information in support of an 1800 lb/hr NO _x emission limit. The 1800 lb/hr emission limit was rejected but the Addendum does include useful additional impacts information that can be scaled downward to reflect the 1088 lb/hr NO _x emission limit.

In addition to these applications, there was supplemental information submitted in the form of faxes and additional mailings.

1.6. Facility Emissions:

See Attachment 1 of this TSD for further details on the emissions from specific emissions units (Emissions Summary).

Table 1. Total Facility Potential to Emit (PTE) Summary and Attainment Status:

	PM tpy	PM ₁₀ tpy	SO ₂ Tpy	NO _x tpy	CO tpy	VOC tpy	Pb tpy	Single HAP tpy	All HAPs tpy
Total Facility Limited Potential Emissions*	1996	1996	2190	4901	280	105	0.556	31	58.6
Total Facility Actual Emissions*	856	254	131	2521	41	0	0	<31	<58.6

*These are the limited potential emissions from column 3 in GI-07 from Delta. They differ from those in the permit application sent by the company in that they have been verified and corrected as needed by MPCA staff. These are the potential emissions that would appear in a public notice. The single largest HAP is hydrogen chloride. Actual emissions are based on the permit application where the data is available, performance tests and the 1996 emission inventory. The above PM and PM₁₀ actual emission totals do not include fugitive emissions, the potential emissions totals do include fugitives.

Table 2. Facility (FC) and Permit Classification

Classification (put x in appropriate box)	Major/Affected Source	*Minor with Limits	*Minor
PSD (Prevention of Significant Deterioration)	X		
NAAR (Nonattainment Area Review)	NA	NA	NA
Part 70 Permit Program	X		
Part 63 NESHAPs (National Emissions Standards for Hazardous Air Pollutants for Source Categories)	NA	NA	NA

* Refers to potential emissions that are less than those specified as major by 40 CFR 52.21, 40 CFR pt. 51 Appendix S, 40 CFR pt. 70, and 40 CFR pt. 63.

Table 3. Change in Emissions from New BACT limit (Tons per year)

Pollutant	PM	PM ₁₀	SO ₂	NO _x	VOCs	CO	Lead
PTE from new NO _x BACT Limit				4765			
Net change in PTE including decreases in emissions				3320			

The PTE of the new BACT limit was calculated at (1088 lb/hr*8760hr/yr)/(2000 lb/ton). The net change in PTE was calculated by using the previous BACT limit of 330 lb/hr. Their Actual emissions were not used since their actual emissions were far greater than what they were allowed to emit. Since you can not take credit for emissions in excess of what is allowed we used the lower 330 lb/hr previous BACT limit in the calculation of the net change in PTE.

2. Regulatory Overview of Facility

Ispat Inland Steel is a major source as defined under 40 CFR § 52.21 and 40 CFR pt. 70.

Table 3. Regulatory Overview

FC, EU, GP, or SV*	Applicable Regulations	Comments:
EU026	40 CFR § 52.21	Prevention of Significant Deterioration (PSD) requirements apply to the induration furnace. A new Best Achievable Control Technology (BACT) limit is being set for this emission unit. Fuel usage, CO and VOC limits from the 1987 PSD permit amendment No. 1 are carried forward into this permit.
	Minn. R. 7007.0610	Standards of Performance for Fossil Fuel Burning Direct Heating Equipment. Emissions of particulate matter, SO ₂ and opacity are regulated by this standard
	Minn. R. 7007.0800, subp. 4(D); Minn. R. 7007.0800, subp. 14; Minn. R. 7007.0800, subp. 16(J)	Permit Content rules for Title V operating permits that pertain to the monitoring and operation of the emission unit and control equipment. The requirements in this permit meet the requirements of EPA's periodic monitoring guidance, which was issued in fall of 1998.
	Minn. R. ch. 7017	Performance Tests. Test in accordance with the rules using EPA approved test methods.

GP001 GP002 GP003 GP004 GP005 GP006 GP007 GP008 GP009 EU001 EU002 EU018 EU031 EU032 EU033	Minn. R. 7007.0715 Minn. R. 7007.0800, subp. 4(D); Minn. R. 7007.0800, subp. 14; Minn. R. 7007.0800, subp. 16(J) Minn. R. ch. 7017	Standards of Performance for Post 1969 Industrial Process Equipment. Emissions of particulate matter and opacity are regulated by this standard. Permit Content rules for Title V operating permits that pertain to the monitoring and operation of the emission unit and control equipment. The requirements in this permit meet the requirements of EPA's periodic monitoring guidance which was issued in fall of 1998. Performance Tests. Test in accordance with the rules using EPA approved test methods.
EU036 EU037	Minn. R. ch. 7011.2300	Standards of Performance for Stationary Internal Combustion Engines. Inland Steel has an Emergency generator and a fire pump that have their visible emissions regulated by this standard.
GP10	40 CFR § 60.670 to 64.676	New Source Performance Standards for Nonmetallic mineral processing plants. The fluxstone crushing and handling equipment were installed in 1987 as a part of the PSD permit amendment.
FC	40 CFR § 70.2 Minn. R. 7007.0800, subp. 2 , Minn. R. ch. 7009	Part 70 Operating Permit Program. Ambient Air Quality Standards. The permit contains a state only requirement for the facility to submit dispersion modeling for PM-10 and SO2.

EU = emission unit, SV = stack/vent, GP = group, CE = control equipment, FC = facility

3. Technical Information

A. Periodic Monitoring

We have been negotiating the Title V permits with six taconite plants for three plus years and our intention was to include periodic monitoring in these permits, however we were going to put the operating parameter ranges in the O&M plans instead of the permit. In fall 1998, EPA issued a periodic guidance memo that required the operating parameters for the pollution control equipment to be put into the permit.

This approach is problematic, at least initially, for the six taconite plants in Minnesota that do not yet have their Title V permits. Most of the taconite plants were constructed in 1950-1970s. None of the permits from this time period required the taconite plants to conduct periodic monitoring. For the vast majority of the control equipment at the six taconite plants there is no historic operating parameter data to use to develop operating parameter ranges that were indicative of proper control equipment operation. Periodic monitoring equipment has not been installed for the most of the air pollution control equipment. In some cases the control equipment vendors have gone out of business.

Instead of using arbitrary operating parameter ranges for control equipment classes (i.e. 1-10" pressure drop for baghouses) that do not reflect site specific conditions that may not catch control equipment failures that may lead to violations of emission limits, we wanted to give the plants an opportunity to develop meaningful site specific operating parameter ranges.

The six remaining taconite plants that do not have their Title V permits yet, are all in the top 25 of PM₁₀ emitters in Minnesota. Since the taconite industry are large PM₁₀ emitters we feel it is important to have meaningful site specific operating parameter ranges that will accurately catch control equipment problems which may increase PM₁₀ emissions.

To implement periodic monitoring for the six remaining taconite plants in a meaningful way we have developed the following permit conditions:

REQUIREMENTS FOR BAGHOUSES:

- 1) Gas Stream Pressure drop: Monitor and record for CE002, CE003, CE009, CE010, CE012, CE013, and CE022 at least once every day when in operation once the pressure gauge is installed. Once the pressure drop parameter ranges for these units are established, a deviation from the range for any unit shall trigger a corrective action as detailed in the O&M plan.
- 2) Process monitoring: the visual emissions observer in the facility staff shall check stack visible emissions (opacity) for SV002, SV003, SV009, SV010, SV012, SV013, and SV022 at least once daily using a checklist that at a minimum contains the information required in Appendix I.

Please note requirement (2) is a quick VE check not a full blown method 9. Appendix I requires them to take corrective action if abnormal opacity is observed.

- 3) Pressure drop monitoring equipment installation due 180 days after permit installation.

REQUIREMENTS FOR SCRUBBERS:

4) Gas Stream Pressure drop: Monitor and record for CE001, CE004-E008, CE011, CE014-021, and CE024 at least once every day when in operation once the pressure gauge is installed. Once the pressure drop parameter ranges for these units are established, a deviation from the range for any unit shall trigger a corrective action as detailed in the O&M plan

5) Water Flow Rate: Monitor and record for CE001, CE004-E008, CE011, CE014-021, and CE024 at least once every day when in operation once the scrubber water flow rate meter is installed. Once the water flow rate parameter ranges for these units are established, a deviation from the range for any unit shall trigger a corrective action as detailed in the O&M plan

6) Water flow rate and Pressure drop monitoring equipment installation due 180 days after permit installation.

REQUIREMENT FOR ALL CONTROL EQUIPMENT:

7) The Permittee shall complete the monitoring equipment debugging and establishment of parameter ranges for normal operation and provide the parameter ranges along with rationale of their development in a permit amendment application submittal to incorporate the parameter ranges into this permit. The rationale for choosing these ranges shall include the control equipment manufacturer's suggested ranges and any reasons for deviating from the manufacturer's recommendations. The permit amendment application submittal due 365 days after Permit Issuance.

The permit amendment application submittal required by item (7) will give us meaningful site specific operating parameter ranges within a year of permit issuance. Several of the taconite plants have over 100 pieces of control equipment, which justifies giving them 1 year to develop the ranges. Once we receive the permit amendment application submittal we will review it and make any necessary changes to ensure we use meaningful operating parameter ranges and we will amend the permits. Requirement 1 for baghouses and requirements 4 and 5 for scrubbers will be amended to explicitly include the operating parameter ranges.

REQUIREMENT FOR FUGITIVE SOURCES:

The permit requires Inland Steel to monitor significant dust sources at least daily. Appendix I details the recordkeeping requirements. Based on plant operators visual observations, corrective actions will be implemented according to the fugitive emissions control plan if significant fugitive dust emissions are observed.

B. Performance testing and requirements that will need to be reevaluated upon permit reissuance for EU026 (Induration Furnace):

There are several requirements pertaining to testing and monitoring of Nox for EU026 (induration furnace) that Inland Steel has indicated they would like to sunset after the initial 5 year term of this permit. It is the position of MPCA staff that the Nox testing requirements can be relaxed (become less frequent) upon reissuance of this Title V permit in five years provided a reliable and accurate indicator of Nox emissions can be developed for the indurating furnace process parameters. Since much of the operating data that is available is based on shift (8 hour) or daily (24 hour) averages or snap shots this introduces significant variability when trying to compare emissions from different performance tests.

The Title V permit requires Inland Steel to gather process data simultaneously with the performance tests from now on which will hopefully allow better correlations between process variables and emissions of NO_x. The following permit conditions should be reevaluated at reissuance of this Title V permit to see if less frequent performance testing will comply with the periodic monitoring and Compliance Assurance Monitoring (CAM) requirements and EPA guidance provided a reliable and accurate indicator of NO_x emissions has been developed.

Nox Performance Testing and Monitoring requirements to be reevaluated at permit reissuance.

1. If the average total NO_x emission rate from SV014-017 exceeds (1033.6 lb/hr) 95 percent of the NO_x emission limit in any 12 month period, the Permittee will submit a plan for Agency review and approval within 120 days of the most recent performance test to implement further monitoring that is technically and economically feasible based on current technologies. This monitoring could include Continuous Emission Monitors (CEMS), Parametric Emission Monitoring (PEMS) or other parametric monitoring which would allow the Permittee and the Agency to reliably and accurately determine the NO_x emissions from SV014-017.
2. If the BTU/Long Ton of Pellets exceeds 550,000 BTU/long tons of pellets based on a 12 month rolling average the Permittee shall perform a NO_x performance test within 120 days of the exceedance. This rolling average will exclude days where the ambient temperatures are less than -20 degrees Fahrenheit at the nearest weather station. This rolling average will also exclude days where the furnace is in a start up mode and the production during start up is less than 250 long tons of pellets per hour.
3. Performance Test: due 180 days after Permit Issuance to determine NO_x emissions. The performance test shall be simultaneous from all four stacks (SV014-017). NO_x performance test number one.

4. Performance Test: due 365 days after Permit Issuance to determine NO_x emissions. This test may be conducted sequentially for each stack. NO_x performance test number two.
5. Performance Test: due 730 days after Permit Issuance to determine NO_x emissions. NO_x performance test number three.
6. Performance Test: due within 360 days of third NO_x performance test required by this permit if the average of the first three NO_x performance tests is greater than 80.0 percent and less than 90.0 percent of the NO_x emission limit and annually thereafter for the life of the permit.
7. Performance Test: due within 180 days of third NO_x performance test required by this permit if the average of the first three NO_x performance tests is greater than 90.0 percent of the NO_x emission limit and every 6 months thereafter for the life of the permit.
8. Performance Test: due once every 730 days after the third NO_x performance test required by this permit if the average of the first three NO_x performance tests is less than or equal to 80.0 percent of the NO_x emission limit.

Relaxation in NO_x testing and monitoring can only take place if a reliable and accurate method of predicting NO_x emissions can be developed from process parameters. Also the NO_x testing and monitoring must comply with the periodic monitoring and CAM requirements and EPA guidance when this permit is reissued in 5 years.

C. Emission Calculations

Attachment 1 of this TSD contains Emissions Summary Form that shows the unlimited and limited PTE for each permitted emissions unit at this facility.

In addition to the permitted units, the facility will have several operations that qualify as Insignificant Activities (IA) under Minn. R. 7007.1300. These IA emissions were included when determining applicability for the facility.

D. Deviations from Delta Guidance

In general, the permit meets the MPCA Delta Guidance for ordering and grouping of requirements. Groups were used for similar emission units to make it easier to specify representative testing of groups of similar units.

3. Prevention of Significant Deterioration (PSD) Analyses , Requirements and Limits.

Ispat Inland Steel was issued an amendment to their existing total facility permit under the Prevention of Significant Deterioration (PSD) regulations on September 25, 1987, to modify its induration furnace at its facility near Virginia, Minnesota. The amendment required performance testing for NO_x and TSP. Performance testing was completed in November 1987 and the results were submitted to the MPCA in February 1988. The performance testing indicated that Ispat Inland Steel was exceeding its NO_x emission limit.

Ispat Inland Steel applied for and received a PSD permit before they constructed their modification and the violation was a result of an erroneous assumption made by the consultant and Inland did not intend to underestimate emissions. The estimation of emissions was complicated by the fact that this was to be the first flux pellet operation in the nation. EPA agreed that their modification should be reevaluated in terms of the PSD program and guidance in place in 1987. Attached in Attachment No. 2 are the EPA and MPCA letters on this topic. In summary, Inland looked at the control technologies available in 1987 to determine BACT, modeled the 1088 lb/hr emission rate for compliance with the NO_x NAAQS, visibility impairment and additional impacts, thus completing applicable PSD requirements.

A. Background:

Once Inland and MPCA were made aware of the NO_x emission limit violation through performance testing both parties regularly corresponded and met to try and resolve this issue. Below is the chronology of events primarily taken from the 1992 Compliance Agreement.

1. In 1987, the company decided to modify its pelletization process to include the addition of limestone to its pellets. The limestone-supplemented pellets, are known as “fluxed” pellets.
2. On January 5, 1987, the Company informed the MPCA of the modifications that the company was planning to make to the Minorca facility. Specifically, the plant modifications were to include: 1) the installation of several additional natural gas burners on the indurating machine; 2) the addition of a conveyor and crusher for limestone, including a wet scrubber to control dust emissions from the crushing operation; and 3) the commitment of existing coal handling and storage facilities to receiving and storage of limestone. The MPCA was informed at that time that the modifications would begin in April and take approximately five months to complete.

4. MPCA staff informed the Company in a letter dated March 6, 1987, that the Company must undertake to determine whether the Prevention of Significant Deterioration (PSD) rules at 40 CFR § 52.21, et. seq., applied to the proposed modification. Based upon that letter, the Company commissioned Interpoll, Inc. to conduct an applicability analysis, the initial threshold step of the PSD permit process.
5. The Company received results from Interpoll on June 3, 1987, indicating that the proposed modification would result in emission increases at the facility, such that a PSD permit application would be required.
6. The Company then contracted with Interpoll to assist it with completing the remainder of the PSD permit application, which consisted of:
 - a. a Best Available Control Technology (BACT) analysis for each pollutant;
 - b. an Air Quality Impact Analysis for each pollutant; and
 - c. an Analysis of other impacts as described in the PSD rules.
7. On July 14, 1987, the Company submitted its PSD permit application for the proposed modifications.
8. On September 25, 1987, MPCA issued Amendment No. 1 to Air Emission Permit No. 257-86-OT-1, authorizing installation and construction of the modifications and establishing a NO_x emission limit of 330 lbs/hr. The BACT analysis concluded that low NO_x burners would have to be installed to reduce NO_x emissions.
9. The amendment required performance stack testing for Total Suspended Particulate (TSP) and NO_x. The performance stack testing was conducted on the modified plant on November 17-19, 1987. The results were submitted to MPCA on February 19, 1988. The results indicated compliance with the TSP emission limit but the NO_x emissions greatly exceeded the 330 lbs/hr limit. However, the NO_x emissions did not cause or contribute to a National Ambient Air Quality Standard (NAAQS) violation for that pollutant, based on computer modeling.
10. On November 1, 1988, the Company requested a modification of its air emission permit to allow actual NO_x emissions. The letter emphasized that the NAAQS for NO_x was not being violated.
11. On January 9, 1989, MPCA notified the Company that it must meet the NO_x emission limit in the permit. MPCA staff suggested that the Company perform a second BACT analysis and consider changes in the operational parameters of the facility or the use of add-on air pollution control equipment to reduce NO_x emissions.

12. On February 20, 1989, the Company reported that it had prepared the second BACT analysis and examined the options suggested by the MPCA. The operating characteristics of the pelletization process relevant to the formation of NO_x (i.e., high flame temperature, length of time of combustion temperature, amount of excess air present at flame) could not be significantly altered and still produce a usable product. Add-on air pollution control equipment was not technically or economically feasible. The Company communicated this to MPCA and again requested a modification of its air emission permit.

13. On May 5, 1989, the MPCA issued a Notice of Violation (NOV) to the Company for violation of the NO_x limit in the air emission permit. The NOV required a compliance plan and schedule for resolving noncompliance be submitted by May 31, 1989. The NOV also stated that the Company had the option to submit a revised BACT analysis which would support a higher NO_x emission rate.

14. The Company responded to the NOV on June 9, 1989, indicating that they would submit a revised BACT analysis. The Company requested several extensions to the deadline in order to solicit NO_x reduction proposals from vendors as part of the BACT analysis.

15. On June 15, 1990, the U.S. Environmental Protection Agency (EPA) issued a separate NOV for violation of the Clean Air Act, requiring the Company and MPCA, along with EPA representatives, to reach a solution. The NOV gave the company thirty (30) days to achieve compliance.

16. After receiving the federal NOV, communications and negotiations among the Company, MPCA and EPA continued in order to resolve the alleged air emission permit violations. In this process, the Company reported the following:

- a. A second performance stack test in July and August 1990, once again demonstrated noncompliance with the NO_x emission limit;
- b. Two more BACT analyses were completed (for a total of three) that indicated low NO_x burners like those in the use at Minorca are BACT;
- c. Add-on air pollution control equipment such as Tri-NO_x was demonstrated to be economically and technically unfeasible;
- d. The process revealed that the NO_x emission limit incorporated into the PSD permit application were based on an erroneous assumption made by the consultant. This error was due in part to the fact that this was the first taconite facility in the U.S. to use this technology.
- e. The Company is not contributing to or causing a violation of the NAAQS for NO_x.

17. On August 7, 1990, the Company met with EPA permit officials to explain their case and resolve the issues of dispute. At that meeting, EPA officials stated that the Company's case appeared reasonable but EPA enforcement officials would have to determine whether the initiated enforcement action would be dropped.

18. Since that time, the Company, MPCA and EPA have communicated regularly to try to settle the issues present in this case. The EPA notified MPCA in July 1991, that it would discontinue enforcement proceedings if MPCA negotiated a Compliance Agreement with the Company. The Compliance Agreement would require the Company to continue investigating feasible methods to reduce NO_x emissions from the indurating machine. Once the Compliance Agreement was negotiated and executed, the MPCA could issue an Air Emission permit with a higher NO_x limit.

19. The MPCA concluded in 1992 that the Low NO_x burners installed in 1987 were still BACT. Rachel Rineheart of EPA Region V in a conversation with Dave Beil of the MPCA on April 17, 1992, indicated that she had no comments on the selection of BACT for Inland.

20. During most of 1992 a draft permit was being negotiated with Inland Steel. However, agreement could not be reached on fugitive emission control measures for particulate matter and other issues. Due to resource limitations and the fact that Inland had in place what the MPCA believes to be BACT, the MPCA decided in 1993 to wait until the newly proposed Title V permitting program came into effect to write the next permit for Inland.

21. In 1997 work was started on a draft Title V permit for Inland Steel which would address O&M plans, fugitive emission control plans, resolve the PSD NO_x noncompliance, PM₁₀ modeling issues and other issues.

B. Compliance Agreement:

To further address the NO_x violation the Compliance Agreement which was executed on April 7, 1992, required Inland Steel to submit and complete the following:

1. The Company shall submit all required analyses and information required for the issuance of an air emission permit. The MPCA acknowledges receipt of the PSD permit application with three BACT analyses and an air emission permit application to amend the NO_x emission limit. The Company shall respond to any additional information requests related to issuance of an air emission permit.

2. As a condition of the new air emission permit, and to settle the violation cited in the outstanding MPCA NOV, the Company agreed to do the following:
 - a. The Company agreed to perform an exploratory investigation of process variable impacts on NO_x emission rates. The Company will measure NO_x emissions under varying operating conditions in the indurating machine to determine whether there are operating scenarios which result in lower NO_x emissions while still maintaining acceptable flux pellet cost, quality and production requirements. As part of this investigation, the Company shall purchase a portable NO_x monitor on or before December 1, 1992. The Company shall complete this investigation on or before December 1, 1994.
 - b. The Company shall retain a low NO_x combustion specialist to perform a combustion system review of the Company's indurator. The purpose of this review will be to evaluate the Company's indurator operation with respect to NO_x minimization potential of the Company's low NO_x burners and complete combustion system. The company shall complete this review on or before December 1, 1994.
 - c. The Company will provide the MPCA quarterly progress reports regarding the exploratory investigation and burner evaluation described above following the procedures and containing the information specified in Part D.2. The Company shall submit a final report that summarizes its findings on or before February 1, 1995.

C. Compliance Agreement Submittals:

Inland Steel entered into a partnership with the U.S. Bureau of Mines to conduct a study of NO_x formation in the pellet induration process titled "Formation of NO_x in Iron Oxide Pelletizing Furnaces" which would meet requirement 2(a) of the compliance agreement. The results of the study did not reveal any alternate methods of operating the furnace which would reduce NO_x while still producing a useable product. A copy of this report is included in Attachment 3.

Inland Steel retained HDR Engineering Inc. to perform the combustion evaluation required under 2(b) of the compliance agreement. HDR concluded that the burners were operating within their design range. A copy of this report is included in Attachment 3.

D. Best Achievable Control Technology (BACT) Analysis:

Inland concluded in their BACT analysis that add on control equipment was not technically or economically feasible. Based on the technology and understanding available in 1987 BACT for this process BACT is low NO_x burners which Inland installed in 1987 under their first PSD permit. A copy of the third BACT is included in Attachment No. 4. MPCA agreed with Inland in 1992 that low NO_x burners were BACT. On April 17, 1992, Rachel Rineheart of EPA Region V indicated EPA had no adverse comments on Inland's BACT analysis.

E. Modeling

Inland conducted modeling which showed that they would not exceed the NO_x NAAQS near their facility with a NO_x emission rate of 1088 lb/hr from their furnace. A copy of the modeling submittal is included in Attachment No. 5.

F. Visibility Analysis

Inland Steel completed a visibility analysis and no adverse impacts to visibility in the Voyageurs National Park or the BWCA was predicted using a level 2 screening analysis. A copy of the visibility analysis is included in Attachment No. 6.

G. Additional Impacts Analysis:

Inland Steel submitted an addendum to their Title V permit application in July 1995 to support raising their NO_x limit to 1800 lb/hr for when they burn coal. The MPCA reviewed this addendum and determined that Inland no longer has the ability to burn coal since Inland removed or relocated all of the coal handling equipment at their facility. The coal handling equipment was moved and is now used to handle fluxstone needed to make the flux pellets. Since Inland does not have the ability to burn coal the MPCA rejected Inland's request for an 1800 lb/hr NO_x emission limit.

Part 5 section 3 of the Addendum contained an Additional Impacts Analysis that was more detailed than the previous analysis on impacts on the Voyageurs National Park or the BWCA. This information can be used to help understand Inland's impact on these two Class 1 areas by scaling the results downward. A copy of the Additional Impacts Analysis along with a memo describing how to scale the impacts and results is included in Attachment No. 7.

It is important to remember this increase occurred in 1987, this is not a new addition of impacts. EPA agreed that their modification should be reevaluated in terms of the PSD program and guidance in place in 1987. Attached in Attachment No. 2 are the EPA and MPCA letters on this topic. In summary no adverse impacts are predicted at Voyageurs National Park or the BWCA

4. Conclusion

Based on the information provided by Ispat Inland Steel Mining Company the MPCA has reasonable assurance that the proposed operation of the emission facility, as described in the Air Emission Permit No. 13700062-001 and this TSD, will not cause or contribute to a violation of applicable federal regulations and Minnesota Rules.

Staff Members on Permit Team: Patrick O'Neill, Stuart Arkley, Greg Kvaal, Bob Beresford and Dennis Becker

Attachments:

1. Emissions Summary
2. EPA and MPCA letters on appropriate timeframe for PSD analysis.
3. U.S. Bureau of Mines study titled "Formation of NOx in Iron Oxide Pelletizing Furnaces" & Combustion evaluation report conducted by HDR.
4. NOx BACT Analysis
5. NOx Modeling Report
6. Visibility Analysis
7. Additional Impacts Analysis

Attachment 1
Potential Emissions Summary

Attachment 2

EPA and MPCA letters on appropriate time frame for PSD analysis.

Attachment 3

- **U.S. Bureau of Mines study titled “Formation of NO_x in Iron Oxide Pelletizing Furnaces”**
- **Combustion evaluation report conducted by HDR.**

Attachment 4
Best Achievable Control Technology (BACT) Analysis

Attachment 5
NOx Modeling

Attachment 6
Visibility Analysis

Attachment 7
**Additional Impacts Analysis &
Scaling and Use Memorandum**