INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
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Mitchell E. Daniels, Jr.
Governor

Thomas W. Easterly
Commissioner

100 North Senate Avenue
Indianapolis, Indiana 46204
(317) 232-8603
(800) 451-6027
www.IN.gov/idem

TO: Interested Parties / Applicant

DATE: October 20, 2005

RE: U.S. Steel Gary Works / 089-20118-00121

FROM: Paul Dubenetzky
Chief, Permits Branch
Office of Air Quality

Notice of Decision: Approval - Effective Immediately

Please be advised that on behalf of the Commissioner of the Department of Environmental Management, I have issued a decision regarding the enclosed matter. Pursuant to IC 13-15-5-3, this permit is effective immediately, unless a petition for stay of effectiveness is filed and granted according to IC 13-15-6-3, and may be revoked or modified in accordance with the provisions of IC 13-15-7-1.

If you wish to challenge this decision, IC 4-21.5-3 and IC 13-15-6-1 require that you file a petition for administrative review. This petition may include a request for stay of effectiveness and must be submitted to the Office of Environmental Adjudication, 100 North Senate Avenue, Government Center North, Room 1049, Indianapolis, IN 46204, **within eighteen (18) calendar days of the mailing of this notice**. The filing of a petition for administrative review is complete on the earliest of the following dates that apply to the filing:

(1) the date the document is delivered to the Office of Environmental Adjudication (OEA);
(2) the date of the postmark on the envelope containing the document, if the document is mailed to OEA by U.S. mail; or
(3) The date on which the document is deposited with a private carrier, as shown by receipt issued by the carrier, if the document is sent to the OEA by private carrier.

The petition must include facts demonstrating that you are either the applicant, a person aggrieved or adversely affected by the decision or otherwise entitled to review by law. Please identify the permit, decision, or other order for which you seek review by permit number, name of the applicant, location, date of this notice and all of the following:

(1) the name and address of the person making the request;
(2) the interest of the person making the request;
(3) identification of any persons represented by the person making the request;
(4) the reasons, with particularity, for the request;
(5) the issues, with particularity, proposed for considerations at any hearing; and
(6) identification of the terms and conditions which, in the judgment of the person making the request, would be appropriate in the case in question to satisfy the requirements of the law governing documents of the type issued by the Commissioner.

If you have technical questions regarding the enclosed documents, please contact the Office of Air Quality, Permits Branch at (317) 233-0178. Callers from within Indiana may call toll-free at 1-800-451-6027, ext. 3-0178.

Enclosures
FNPER.dot 1/10/05

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(800) 451-6027
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Mr. James Alexander
US Steel - Gary Works
One North Broadway
Gary, IN 46402-3199

October 20, 2005

Re: **Significant Source Modification**
089-20118-00121

Dear Mr. Alexander:

On September 24, 2004, US Steel - Gary Works submitted an application to the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ) to reline one of their four (4) existing blast furnaces, located at One North Broadway, Gary, IN 46402. The relining of No. 13 Blast Furnace (now identified as No. 14 Blast Furnace) consists of the following activities:

(a) Replacement of the furnace refractory lining with new and thinner refractory brick.

(b) Replacement of furnace shell.

(c) Removal and replacement of the top charging system with a new "bell-less" charging system.

(d) Placement of new copper staves in the mantle area of the furnace.

(e) Installation of new copper cooling plates and a new bustle pipe.

(f) Repair of the checker work brick in the stoves and various structural, mechanical, and electrical repairs.

(g) Enlargement of the slag granulator and addition of a stack.

(h) Changes to the casthouse and casthouse emissions control system to improve capture efficiency of hoods at the tap holes, iron troughs, and runners.

(i) Removal and replacement of the existing system for cleaning blast furnace gas with a more efficient scrubbing system.

Pursuant to the provisions of 326 IAC 2-7-10.5, a significant source modification is hereby approved as described in the attached Technical Support Document.

All other existing conditions and requirements applicable to the No. 14 Blast Furnace (formerly No. 13 Blast Furnace) shall remain unchanged and in effect. The source may begin construction and operation of the No. 14 Blast Furnace when this significant source modification has been issued.

This decision is subject to the Indiana Administrative Orders and Procedures Act - IC 4-21.5-3-5.

If you have any questions on this matter, please contact Ms. Iryn Calilung of my staff (317) 233-5692 or (800) 451-6027, and ask for extension 3-5692.

Sincerely,

Original Signed By:
Paul Dubenetzky
Assistant Commissioner
Office of Air Quality

cc: File - Lake County
Lake County Health Department
Air Compliance Section Inspector - DCS
NWRO
Compliance Data Section
Permit Administrative and Development Section

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PART 70 SIGNIFICANT SOURCE MODIFICATION

OFFICE OF AIR QUALITY

U.S. Steel – Gary Works
One North Broadway
Gary, Indiana 46402

(herein known as the Permittee) is hereby authorized to construct and operate subject to the conditions contained herein, the emission units described in Section A (Source Summary) of this approval.

This approval is issued in accordance with 326 IAC 2 and 40 CFR Part 70 Appendix A and contains the conditions and provisions specified in 326 IAC 2-7 as required by 42 U.S.C. 7401, et. seq. (Clean Air Act as amended by the 1990 Clean Air Act Amendments), 40 CFR Part 70.6, IC 13-15 and IC 13-17.

Significant Source Modification No.: **089-20118-00121**	
Issued by: Original Signed By: Paul Dubenetzky Assistant Commissioner, Office of Air Quality	Issuance Date: October 20, 2005

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Part 70 Operating Permit Certification
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SECTION A **SOURCE SUMMARY**

This permit is based on information requested by the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ). The information describing the source contained in conditions A.1 thru A.3 is descriptive information and does not constitute enforceable conditions. However, the Permittee should be aware that a physical change or a change in the method of operation that may render this descriptive information obsolete or inaccurate may trigger requirements for the Permittee to obtain additional permits or seek modification of this permit pursuant to 326 IAC 2, or change other applicable requirements presented in the permit application.

A.1 General Information [326 IAC 2-7-4(c)] [326 IAC 2-7-5(15)] [326 IAC 2-7-1(22)]

The Permittee owns and operates an integrated steel mill.

Responsible Officials:	General Manager, Gary Works
Source Address:	1 North Broadway, Gary, Indiana 46402
Mailing Address:	1 North Broadway, Gary, Indiana 46402
General Source Phone Number:	219-888-3387
SIC Code:	3312
County Location:	Lake
Source Location Status:	Nonattainment for SO_2 Nonattainment for 1-hour ozone Nonattainment for 8-hour ozone Nonattainment for PM2.5 Attainment or unclassifiable for all other criteria pollutants
Source Status:	Part 70 Permit Program Major Source, under PSD and Emission Offset Rules Major Source, Section 112 of the Clean Air Act 1 of 28 Source Categories

A.2 Emission Units and Pollution Control Equipment Summary [326 IAC 2-7-4(c)(3)] [326 IAC 2-7-5(15)]

This modification to a stationary source is approved to construct the following activities involved in the N0. 14 Blast Furnace Reline Project.

(a) Replacement of the furnace refractory lining with new and thinner refractory brick.

(b) Replacement of furnace shell.

(c) Removal and replacement of the top charging system with a new “bell-less” charging system.

(d) Placement of new copper staves in the mantle area of the furnace.

(e) Installation of new copper cooling plates and a new bustle pipe.

(f) Repair of the checker work brick in the stoves and various structural, mechanical and electrical repairs.

(g) Enlargement of the slag granulator and addition of a stack.

(h) Changes to the casthouse and casthouse emissions control system to improve capture efficiency of hoods at the tap holes, iron troughs and runners.

(i) Removal and replacement of the existing system for cleaning blast furnace gas with a more efficient scrubbing system.

A.3 Part 70 Permit Applicability [326 IAC 2-7-2]

This integrated steel mill is required to have a Part 70 permit by 326 IAC 2-7-2 (Applicability) because:

(a) It is a major source, as defined in 326 IAC 2-7-1(22);

(b) It is a source in a source category designated by the United States Environmental Protection Agency (U.S. EPA) under 40 CFR §70.3 (Part 70 - Applicability).

SECTION B GENERAL CONSTRUCTION CONDITIONS

B.1 Advanced Source Modification Approval [326 IAC 2-7-5(16)] [326 IAC 2-7-10.5]

Pursuant to 326 IAC 2-7-10.5(f)(4), the activities involved in the No. 14 Blast Furnace Reline Project, as specified in Section A.2, are hereby approved for construction.

B.2 Actual to Projected Actual Applicability Test [326 IAC 2-2-2(d)] [326 IAC 2-2-3(c)]

(a) Pursuant to 326 IAC 2-2-2(d) and 326 IAC 2-3-2(c), the No. 14 Blast Furnace Reline Project shall not cause a significant net emission increase for any of the pollutants listed in 326 IAC 2-2-1(xx) and 326 IAC 2-3-1(qq).

The significant net emission increase shall be determined using the Actual to Projected Actual Applicability Test.

Therefore, the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration) and 326 IAC 2-3 (Emission Offset) are not applicable.

(b) Unless otherwise specified in this permit, all record keeping requirements not already legally required shall be implemented when the new or modified equipment begins normal operation.

(c) If there is a reasonable possibility that the No. 14 Blast Furnace Reline Project may result in a significant emission increase and the Permittee elects to utilize the "projected actual emissions" (as defined in 326 IAC 2-2-1(rr) and 326 IAC 2-3-1 (mm)), the Permittee shall comply with the following:

(1) Before beginning actual construction of the "project" (as defined in 326 IAC 2-2-1(qq) and 326 IAC 2-3-1(ll)) at an existing emission unit, document and maintain the following records:

(A) A description of the project;

(B) Identification of any emission unit whose emissions of a regulated new source review (NSR) pollutant could be affected by the project;

(C) A description of the applicability test used to determine that the project is not a major modification for any regulated NSR pollutant, including:

(i) Baseline actual emissions;

(ii) Projected actual emissions;

(iii) Amount of emissions excluded under section 326 IAC 2-2-1(rr)(2)(A)(iii); and

(iv) An explanation for why the amount was excluded, and any netting calculations, if applicable.

(2) Monitor the emissions of any regulated NSR pollutant that could increase as a result of the project and that is emitted by any existing emission unit identified in (1)(B) above; and

(3) Calculate and maintain a record of the annual emissions, in tons per year on a calendar year basis, for a period of five (5) years following resumption of regular operations after the change, or for a period of ten (10) years following resumption of regular operations after the change if the project increases the design capacity or the potential to emit that regulated NSR pollutant at the emission unit.

B.3 Volatile Organic Compounds (VOC) De Minimis [326 IAC 2-3-2(b)]

Pursuant to 326 IAC 2-3-2(b), the VOC emissions increases for the five (5) calendar year period January 2000 to December 2005 plus the net emission increase from the No. 14 Blast Furnace Reline Project resulted in an emission increase less than the VOC de minimis level (25 tons per year).

Therefore, the requirements of 326 IAC 2-3 (Emission Offset) are not applicable.

B.4 Permit No Defense [IC 13-11 through 13-20][IC 13-22 through 13-25]

This permit to construct does not relieve the Permittee of the responsibility to comply with the provisions of the Indiana Environmental Management Law (IC 13-11 through 13-20; 13-22 through 13-25; and 13-30), the Air Pollution Control Law (IC 13-17) and the rules promulgated thereunder, as well as other applicable local, state, and federal requirements.

B.5 Effective Date of the Permit [IC 13-15-5-3]

Pursuant to IC 13-15-5-3, this permit becomes effective upon its issuance.

B.6 Revocation of Permits [326 IAC 2-1.1-9(5)][326 IAC 2-7-10.5(i)]

Pursuant to 326 IAC 2-1.1-9(5)(Revocation of Permits), the Commissioner may revoke this approval if construction is not commenced within eighteen (18) months after receipt of this approval or if construction is suspended for a continuous period of one (1) year or more.

B.7 Modification to Construction Conditions [326 IAC 2]

All requirements of these construction conditions shall remain in effect unless modified in a manner consistent with procedures established for revisions pursuant to 326 IAC 2.

B.8 Significant Source Modification [326 IAC 2-7-10.5(h)]

This document shall also become the approval to operate pursuant to 326 IAC 2-7-10.5(h) when, prior to start of operation, the following requirements are met:

(a) The attached Affidavit of Construction shall be submitted to the Office of Air Quality (OAQ), verifying that the emission units were constructed or modified as proposed in the application or the permit. The emission units covered in this permit may begin operating on the date the affidavit of construction is postmarked or hand delivered to IDEM if constructed as proposed.

If construction is completed in phases: (i.e., the entire construction is not done continuously) a separate affidavit must be submitted for each phase of construction.

(b) If actual construction of the emission units differs from the construction proposed in the application or the permit in a manner that is not regulated under the provisions of 326 IAC 2-2, the Permittee may not begin operation until the source modification has been revised pursuant to the provisions of that rule and the

provisions of 326 IAC 2-7-11 or 326 IAC 2-7-12 and an Operation Permit Validation Letter is issued.

(c) The Permittee shall attach the Operation Permit Validation Letter received from the OAQ to this permit.

(d) The changes covered by this Significant Source Modification will be included in the Part 70 Operating Permit.

(e) In the event that the Part 70 application is being processed at the same time as this application, the following additional procedures shall be followed for obtaining the right to operate:

(1) If the Part 70 draft permit has not gone on public notice, then the project covered by the Significant Source Modification will be included in the Part 70 draft.

(2) If the Part 70 permit has gone through final EPA proposal and would be issued ahead of the Significant Source Modification, the Significant Source Modification will go through a concurrent 45 day EPA review. Then the Significant Source Modification will be incorporated into the final Part 70 permit at the time of issuance.

(3) If the Part 70 permit has gone through public notice, but has not gone through final EPA review and would be issued after the Significant Source Modification is issued, then the Modification would be added to the proposed Part 70 permit, and the Part 70 Operating permit will issued after EPA review

SECTION C GENERAL OPERATION CONDITIONS

C.1 Certification [326 IAC 2-7-4(f)][326 IAC 2-7-6(1)][326 IAC 2-7-5(3)(C)]

(a) Where specifically designated by this permit or required by an applicable requirement, any application form, report, or compliance certification submitted shall contain certification by a responsible official of truth, accuracy, and completeness. This certification shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

(b) One (1) certification shall be included, using the attached Certification Form, with each submittal requiring certification.

(c) A responsible official is defined at 326 IAC 2-7-1(34).

C.2 Preventive Maintenance Plan [326 IAC 2-7-5(1),(3) and (13)] [326 IAC 2-7-6(1) and (6)] [326 IAC 1-6-3]

(a) The Permittee shall prepare and maintain Preventive Maintenance Plans (PMPs) within 180 days of commencement of operation following the completion of the detailed reline, including the following information on each emission unit:

(1) Identification of the individual(s) responsible for inspecting, maintaining, and repairing emission control devices;

(2) A description of the items or conditions that will be inspected and the inspection schedule for said items or conditions; and

(3) Identification and quantification of the replacement parts that will be maintained in inventory for quick replacement.

The PMP extension notification does not require the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

(b) The Permittee shall implement the PMPs, including any required record keeping, as necessary to ensure that failure to implement a PMP does not cause or contribute to an exceedance of any limitation on emissions or potential to emit.

(c) A copy of the PMP's shall be submitted to IDEM, OAQ, upon request and within a reasonable time, and shall be subject to review and approval by IDEM, OAQ. IDEM, OAQ, may require the Permittee to revise its PMP whenever lack of proper maintenance causes or is the primary contributor to an exceedance of any limitation on emissions or potential to emit. The PMP does not require the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

(d) To the extent the Permittee is required by 40 CFR Part 60/63 to have an Operation, Maintenance, and Monitoring (OMM) Plan for a unit, such Plan is deemed to satisfy the PMP requirements of 326 IAC 1-6-3 for that unit.

C.3 Deviations from Permit Requirements and Conditions [326 IAC 2-7-5(3)(C)(ii)]

(a) Deviations from any permit requirements (for emergencies see Section C - Emergency Provisions), the probable cause of such deviations, and any response steps or preventive measures taken shall be reported to:

Indiana Department of Environmental Management
Compliance Data Section, Office of Air Quality
100 North Senate Avenue,
Indianapolis, Indiana 46204

using the attached Quarterly Deviation and Compliance Monitoring Report, or its equivalent.

A deviation required to be reported pursuant to an applicable requirement that exists independent of this permit, shall be reported according to the schedule stated in the applicable requirement and does not need to be included in this report.

The Quarterly Deviation and Compliance Monitoring Report does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

(b) A deviation is an exceedance of a permit limitation or a failure to comply with a requirement of the permit.

C.4 Inspection and Entry [326 IAC 2-7-6][IC 13-14-2-2][IC 13-30-3-1]

Upon presentation of proper identification cards, credentials, and other documents as may be required by law, and subject to the Permittee's right under all applicable laws and regulations to assert that the information collected by the agency is confidential and entitled to be treated as such, the Permittee shall allow IDEM, OAQ, U.S. EPA, or an authorized representative to perform the following:

(a) Enter upon the Permittee's premises where a permitted source is located, or emissions related activity is conducted, or where records must be kept under the conditions of this permit;

(b) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, have access to and copy, at reasonable times, any records that must be kept under this title or the conditions of this permit or any operating permit revisions;

(c) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, inspect at reasonable times, any processes, emission units (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit or any operating permit revisions;

(d) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, sample or monitor, at reasonable times, substances or parameters for the purpose of assuring compliance with this permit or applicable requirements; and

(e) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, utilize any photographic, recording, testing, monitoring, or other equipment for the purpose of assuring compliance with this permit or applicable requirements.

C.5 Opacity [326 IAC 5-1]

Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Alternative Opacity Limitations), opacity shall meet the following, unless otherwise stated in this permit:

(a) Opacity shall not exceed an average of twenty percent (20%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.

(b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings as measured according to 40 CFR Part 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

C.6 Fugitive Dust Emissions [326 IAC 6-4]

The Permittee shall not allow fugitive dust to escape beyond the property line or boundaries of the property, right-of-way, or easement on which the source is located, in a manner that would violate 326 IAC 6-4 (Fugitive Dust Emissions). 326 IAC 6-4-2(4) is not federally enforceable.

C.7 Operation of Equipment [326 IAC 2-7-6(6)]

Except as otherwise provided by statute or rule, or in this permit, all air pollution control equipment listed in this permit and used to comply with an applicable requirement shall be operated at all times that the emission units vented to the control equipment are in operation.

C.8 Stack Height [326 IAC 1-7]

The Permittee shall comply with the applicable provisions of 326 IAC 1-7 (Stack Height Provisions), for all exhaust stacks through which a potential before controls of twenty-five (25) tons per year or more of particulate matter or sulfur dioxide is emitted.

The provisions of 326 IAC 1-7-2, 326 IAC 1-7-3(c) and (d), 326 IAC 1-7-4(d), (e), and (f), and 326 IAC 1-7-5(d) are not federally enforceable.

Testing Requirements [326 IAC 2-7-6(1)]

C.9 Performance Testing [326 IAC 3-6][326 IAC 2-1.1-11]

(a) Compliance testing on new emission units shall be conducted within 60 days after achieving maximum production rate, but no later than 180 days after initial start-up. All testing shall be performed according to the provisions of 326 IAC 3-6 (Source Sampling Procedures), except as provided elsewhere in this approval, utilizing any applicable procedures and analysis methods specified in 40 CFR Part 51, 40 CFR Part 60, 40 CFR Part 61, 40 CFR Part 63, 40 CFR Part 75, or other procedures approved by IDEM, OAQ.

A test protocol, except as provided elsewhere in this approval, shall be submitted to:

Indiana Department of Environmental Management
Compliance Data Section, Office of Air Quality
100 North Senate Avenue
Indianapolis, Indiana 46204

no later than thirty-five (35) days prior to the intended test date. The protocol submitted by the Permittee does not require certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

(b) The Permittee shall notify IDEM, OAQ of the actual test date at least fourteen (14) days prior to the actual test date. The notification submitted by the Permittee does not require certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

(c) Pursuant to 326 IAC 3-6-4(b), all test reports must be received by IDEM, OAQ within forty-five (45) days after the completion of the testing. An extension may be granted by IDEM, OAQ, if the source submits to IDEM, OAQ, a reasonable written explanation within five (5) days prior to the end of the initial forty-five (45) day period.

Compliance Requirements [326 IAC 2-1.1-11]

C.10 Compliance Requirements [326 IAC 2-1.1-11]

The commissioner may require stack testing, monitoring, or reporting at any time to assure compliance with all applicable requirements by issuing an order under 326 IAC 2-1.1-11. Any monitoring or testing shall be performed in accordance with 326 IAC 3 or other methods approved by the commissioner or the U. S. EPA.

Compliance Monitoring Requirements [326 IAC 2-7-5(1)] [326 IAC 2-7-6(1)]

C.11 Compliance Monitoring [326 IAC 2-7-5(3)] [326 IAC 2-7-6(1)]

All monitoring and record keeping requirements shall be implemented within 180 days of commencement of operation following the completion of the detailed reline. The Permittee is required to maintain records of production of hot molten metal at No. 14 Blast Furnace from the date of commencement of operation after the completion of detailed reline. The Permittee shall be responsible for installing any necessary equipment and initiating any required monitoring related to that equipment.

C.12 Monitoring Methods [326 IAC 3] [40 CFR Part 60] [40 CFR Part 63]

Any monitoring or testing of this permit shall be performed according to the provisions of 326 IAC 3, 40 CFR Part 60, Appendix A; 40 CFR Part 60, Appendix B; 40 CFR Part 63, or other approved methods as specified in this permit.

Corrective Actions and Response Steps [326 IAC 2-7-5] [326 IAC 2-7-6]

C.13 Compliance Response Plan - Preparation, Implementation, Records, and Reports [326 IAC 2-7-5] [326 IAC 2-7-6]

(a) The Permittee is required to prepare a Compliance Response Plan (CRP) for each compliance monitoring condition of this permit. If a Permittee is required to have an Operation, Maintenance and Monitoring (OMM) Plan or Parametric Monitoring Plan and Start-up, Shutdown, and Malfunction (SSM) Plan under 40 CFR 60/63, such plans shall be deemed to satisfy the requirements for a CRP for those compliance monitoring conditions. A CRP shall be submitted to IDEM, OAQ upon request. The CRP shall be prepared within ninety (90) days after issuance of this permit by the Permittee, supplemented from time to time by the Permittee, maintained on site, and comprised of:

(1) Reasonable response steps that may be implemented in the event that a response step is needed pursuant to the requirements of this permit; and an expected timeframe for taking reasonable response steps.

(2) If, at any time, the Permittee takes reasonable response steps that are not set forth in the Permittee's current Compliance Response Plan or Operation, Maintenance and Monitoring (OMM) Plan or Parametric Monitoring Plan and Start-up, Shutdown, and Malfunction (SSM) Plan, the Permittee shall amend its Compliance Response Plan or Operation, Maintenance and Monitoring (OMM) Plan or Parametric Monitoring Plan and Start-up, Shutdown, and Malfunction (SSM) Plan to include such response steps taken.

The OMM Plan or Parametric Monitoring and SMM Plan shall be submitted within the time frames specified by the applicable 40 CFR 60 or 40 CFR 63 requirement.

(b) For each compliance monitoring condition of this permit, reasonable response steps shall be taken when indicated by the provisions of that compliance monitoring condition as follows:

(1) Reasonable response steps shall be taken as set forth in the Permittee's current Compliance Response Plan or Operation, Maintenance and Monitoring (OMM) Plan or Parametric Monitoring Plan and Start-up, Shutdown, and Malfunction (SSM) Plan; or

(2) If none of the reasonable response steps listed in the Compliance Response Plan or Operation, Maintenance and Monitoring (OMM) Plan or Parametric Monitoring Plan and Start-up, Shutdown, and Malfunction (SSM) Plan is applicable or responsive to the excursion, the Permittee shall devise and implement additional response steps as expeditiously as practical. Taking such additional response steps shall not be considered a deviation from this permit so long as the Permittee documents such response steps in accordance with this condition.

(3) If the Permittee determines that additional response steps would necessitate that the emission unit or control device be shut down, and it will be 10 days or more until the unit or device will be shut down, then the Permittee shall promptly notify the IDEM, OAQ of the expected date of the shut down, the status of the applicable compliance monitoring parameter with respect to normal, and the results of the actions taken up to the time of notification.

(4) Failure to take reasonable response steps shall be considered a deviation from the permit.

(c) The Permittee is not required to take any further response steps for any of the following reasons:

(1) A false reading occurs due to the malfunction of the monitoring equipment and prompt action was taken to correct the monitoring equipment.

(2) The Permittee has determined that the compliance monitoring parameters established in the permit conditions are technically inappropriate, has previously submitted a request for a minor permit modification to the permit, and such request has not been denied.

(3) An automatic measurement was taken when the process was not operating.

(4) The process has already returned or is returning to operating within "normal" parameters and no response steps are required.

(d) When implementing reasonable steps in response to a compliance monitoring condition, if the Permittee determines that an exceedance of an emission limitation has occurred, the Permittee shall report such deviations pursuant to Section C-Deviations from Permit Requirements and Conditions.

(e) All monitoring shall be performed when the emission unit is operating, except for time necessary to perform quality assurance and maintenance activities.

(f) The Permittee shall record all instances when response steps are taken. In the event of an emergency, the provisions of 326 IAC 2-7-16 (Emergency Provisions) requiring prompt corrective action to mitigate emissions shall prevail.

C.14 Emergency Provisions [326 IAC 2-7-16]

(a) An emergency, as defined in 326 IAC 2-7-1(12), is not an affirmative defense for an action brought for noncompliance with a federal or state health-based emission limitation.

(b) An emergency, as defined in 326 IAC 2-7-1(12), constitutes an affirmative defense to an action brought for noncompliance with a technology-based emission limitation if the affirmative defense of an emergency is demonstrated through properly-signed, contemporaneous operating logs or other relevant evidence that describe the following:

(1) An emergency occurred, and the Permittee can, to the extent possible, identify the causes of the emergency.

(2) The permitted facility was at the time being properly operated.

(3) During the period of an emergency, the Permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards or other requirements in this permit.

(4) For each emergency lasting one (1) hour or more, the Permittee notified IDEM, OAQ and Northwest Regional Office within four (4) daytime business hours after the beginning of the emergency, or after the emergency was discovered or reasonably should have been discovered.

Telephone Number: 1-800-451-6027 (ask for Office of Air Quality, Compliance Section), or
Telephone Number: 317-233-5674 (ask for Compliance Section)
Facsimile Number: 317-233-5967

Northwest Regional Office
Telephone Number: 219-881-6712
Facsimile Number: 219-881-6745

(5) For each emergency lasting one (1) hour or more, the Permittee submitted the attached Emergency Occurrence Report Form or its equivalent, either by mail or facsimile, to:

Indiana Department of Environmental Management
Compliance Branch, Office of Air Quality
100 North Senate Avenue
Indianapolis, Indiana 46204

within two (2) working days of the time when emission limitations were exceeded due to the emergency.

The notice fulfills the requirement of 326 IAC 2-7-5(3)(C)(ii) and must contain the following:

(A) A description of the emergency;

(B) Any steps taken to mitigate the emissions; and,

(C) Corrective actions taken.

The notification which shall be submitted by the Permittee does not require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

(6) The Permittee immediately took all reasonable steps to correct the emergency.

(c) In any enforcement proceeding, the Permittee seeking to establish the occurrence of an emergency has the burden of proof.

(d) This emergency provision supersedes 326 IAC 1-6 (Malfunctions). This permit condition is in addition to any emergency or upset provision contained in any applicable requirement.

(e) IDEM, OAQ may require that the Preventive Maintenance Plans required under 326 IAC 2-7-4-(c)(10) be revised in response to an emergency.

(f) Failure to notify IDEM, OAQ by telephone or facsimile of an emergency lasting more than one (1) hour in accordance with (b)(4) and (5) of this condition shall constitute a violation of 326 IAC 2-7 and any other applicable rules.

(g) If the emergency situation causes a deviation from a technology-based limit, the Permittee may continue to operate the affected emitting facilities during the emergency provided the Permittee immediately takes all reasonable steps to correct the emergency and minimize emissions.

C.15 Actions Related to Noncompliance Demonstrated by a Stack Test [326 IAC 2-7-5] [326 IAC 2-7-6]

(a) When the results of a stack test performed in conformance with Section C - Performance Testing, of this permit exceed the level specified in any condition of this permit, the Permittee shall take appropriate response actions. The Permittee shall submit a description of these response actions to IDEM, OAQ, within thirty (30) days of receipt of the test results. The Permittee shall take appropriate action to minimize excess emissions from the affected facility while the response actions are being implemented.

(b) A retest to demonstrate compliance shall be performed within one hundred twenty (120) days of receipt of the original test results. Should the Permittee demonstrate to IDEM, OAQ that retesting in one hundred and twenty (120) days is not practicable, IDEM, OAQ may extend the retesting deadline.

(c) IDEM, OAQ reserves the authority to take any actions allowed under law in response to non-compliant stack tests.

The response action documents submitted pursuant to this condition require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]

C.16 General Record Keeping Requirements [326 IAC 2-7-5(3)][326 IAC 2-7-6]

(a) Records of all required monitoring data, reports and support information required by this Permit shall be retained for a period of at least five (5) years from the date of monitoring sample, measurement, report, or application. These records shall be physically present or electronically accessible at the source location for a minimum of three (3) years. The records may be stored elsewhere for the remaining two (2) years as long as they are available upon request. If the Commissioner makes a request for records to the Permittee, the Permittee shall furnish the records to the Commissioner within a reasonable time.

(b) Unless otherwise specified in this permit, all record keeping requirements not already legally required shall be implemented when the new or modified equipment begins normal operation.

(c) If there is a reasonable possibility that a "project" (as defined in 326 IAC 2-2-1(qq) at an existing emission unit, other than projects at a Clean Unit, which is not part of a "major modification" 326 IAC 2-2-1(ee) may result in a significant emissions increase and the Permittee elects to utilize the "projected actual emissions" (as defined in 326 IAC 2-2-1(rr)), the Permittee shall comply with the following:

(1) Before beginning actual construction of the "project" (as defined in 326 IAC 2-2-1(qq)) at an existing emission unit, document and maintain the following records:

(A) A description of the project;

(B) Identification of any emission unit whose emissions of a regulated new source review pollutant could be affected by the project;

(C) A description of the applicability test used to determine that the project is not a major modification for any regulated NSR pollutant, including:

(i) Baseline actual emissions;

(ii) Projected actual emissions;

(iii) Amount of emissions excluded under section 326 IAC 2-2-1(rr)(2)(A)(iii); and

(iv) An explanation for why the amount was excluded, and any netting calculations, if applicable.

(2) Monitor the emissions of any regulated NSR pollutant that could increase as a result of the project and that is emitted by any existing emission unit identified in (1)(B) above; and

(3) Calculate and maintain a record of the annual emissions, in tons per year on a calendar year basis, for a period of five (5) years following resumption of regular operations after the change, or for a period of ten (10) years following resumption of regular operations after the change if the project increases the design capacity or the potential to emit that regulated NSR pollutant at the emission unit.

C.17 General Reporting Requirements [326 IAC 2-7-5(3)(C)]

(a) The source shall submit the attached Quarterly Deviation and Compliance Monitoring Report or its equivalent. Any deviation from permit requirements, the date(s) of each deviation, the cause of the deviation, and the response steps taken must be reported. This report shall be submitted within thirty (30) days of the end of the reporting period. The Quarterly Deviation and Compliance Monitoring Report shall include the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

(b) The report required in (a) of this Condition of this permit shall be submitted to:

Indiana Department of Environmental Management
Compliance Data Section, Office of Air Quality
100 North Senate Avenue
Indianapolis, Indiana 46204

(c) Unless otherwise specified in this permit, any notice, report, or other submission required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ on or before the date it is due.

(d) Unless otherwise specified in this permit, all reports of this permit shall be submitted within thirty (30) days of the end of the reporting period. All reports require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

(e) The first report shall cover the period commencing on the date of issuance of this permit and ending on the last day of the reporting period. Reporting periods are based on calendar years, unless otherwise specified in this permit. For the purpose of this permit

"calendar year" means the twelve (12) month period from January 1 to December 31 inclusive.

(f) If the Permittee is required to comply with the recordkeeping provisions of (c) in Section C – General Record Keeping Requirements for any "project" (as defined in 326 IAC 2-2-1(qq)), at an existing emission unit other than an Electric Utility Steam Generating Unit, and the project meets the following criteria, then the Permittee shall submit a report to IDEM, OAQ:

(1) The annual emissions, in tons per year, from the project identified in (c)(1) in Section C – General Record Keeping Requirements exceed the baseline actual emissions, as documented and maintained under Section C – General Record Keeping Requirements (c)(1)(C)(i), by a significant amount, as defined in 326 IAC 2-2-1(xx), for that regulated pollutant, and

(2) The emissions differ from the preconstruction projection as documented and maintained under Section C – General Record Keeping Requirements (c)(1)(C)(ii).

(g) The report for a project at an existing emission unit shall be submitted within sixty (60) days after the end of the year and contain the following:

(1) The name, address, and telephone number of the major stationary source.

(2) The annual emissions calculated in accordance with (c)(2) in Section C – General Record Keeping Requirements.

(3) The emissions calculated under the actual-to-projected-actual test stated in 326 IAC 2-2-2(d)(3).

(4) Any other information that the Permittee deems fit to include in this report,

Reports required in this part shall be submitted to:

Indiana Department of Environmental Management
Air Compliance Section, Office of Air Quality
100 North Senate Avenue
Indianapolis, Indiana 46204

(h) The Permittee shall make the information required to be documented and maintained in accordance with (c) in Section C – General Record Keeping Requirements available for review upon request for inspection by IDEM, OAQ. The general public may request this information from the IDEM, OAQ under 326 IAC 17.1

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE BRANCH
100 North Senate Avenue, Indianapolis, IN 46204

PART 70 OPERATING PERMIT
CERTIFICATION

Source Name: U.S. Steel – Gary Works
Source Location: One North Broadway, Gary Indiana, 46402

This certification shall be included when submitting monitoring, testing reports/results or other documents as required by this approval. Please check what document is being certified:
□ Test Result (specify)
□ Report (specify)
□ Notification (specify)
□ Affidavit (specify)
□ Other (specify)

I certify that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete. Signature:
Printed Name:
Title/Position:
Date:

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY, COMPLIANCE BRANCH
100 North Senate Avenue, Indianapolis, IN 46204

PART 70 OPERATING PERMIT
EMERGENCY OCCURRENCE REPORT

Source Name: U.S. Steel – Gary Works
Source Location: One North Broadway, Gary Indiana, 46402

□ This is an emergency as defined in 326 IAC 2-7-1(12)

The Permittee must notify the Office of Air Quality (OAQ), no later than four (4) business hours (1-800-451-6027 or 317-233-5674, ask for Compliance Section); and

The Permittee must submit notice in writing or by facsimile no later than two (2) working days (Facsimile Number: 317-233-5967), and follow the other requirements of 326 IAC 2-7-16.

Address: 100 North Senate Avenue, Indianapolis, Indiana 46204

This EMERGENCY OCCURRENCE REPORT consists of 2 pages.

If any of the following are not applicable, mark N/A

Facility/Equipment/Operation:
Control Equipment:
Permit Condition or Operation Limitation in Permit:
Description of the Emergency:
Describe the cause of the Emergency:
Date/Time Emergency started:
Date/Time Emergency was corrected:

Page 2 of 2 of the EMERGENCY OCCURRENCE REPORT
Was the facility being properly operated at the time of the emergency? Y N Describe:
Type of Pollutants Emitted: TSP, PM_{10}, SO_2, VOC, NO_x, CO, Pb, other:
Estimated amount of pollutant(s) emitted during emergency:
Describe the steps taken to mitigate the problem:
Describe the corrective actions/ response steps taken:
Describe the measures taken to reduce emissions:
If applicable, describe the reasons why continued operation of the facilities are necessary to prevent imminent injury to persons, severe damage to equipment, substantial loss of capital investment, or loss of product or raw materials of substantial economic value:

Form Completed By:
Title/Position:
Date:
Telephone:

A certification by the responsible official as defined by 326 IAC 2-7-1(34) is NOT required for this report.

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE DATA SECTION
100 North Senate Avenue, Indianapolis, IN 46204

PART 70 OPERATING PERMIT

QUARTERLY DEVIATION AND COMPLIANCE MONITORING REPORT

Source Name: U.S. Steel – Gary Works
Source Location: One North Broadway, Gary Indiana, 46402

Months: _____ to _____ Year: _____

This Quarterly Deviation And Compliance Monitoring Report consists of 2 pages.

This report shall be submitted quarterly based on a calendar year. Any deviation from the requirements, the date(s) of each deviation, the probable cause of the deviation, and the response steps taken must be reported. A deviation required to be reported pursuant to an applicable requirement that exists independent of the permit, shall be reported according to the schedule stated in the applicable requirement and does not need to be included in this report. Additional pages may be attached if necessary. If no deviations occurred, please specify in the box marked "No deviations occurred this reporting period".
☐ NO DEVIATIONS OCCURRED THIS REPORTING PERIOD.
☐ THE FOLLOWING DEVIATIONS OCCURRED THIS REPORTING PERIOD
Permit Requirement (specify permit condition #)
Date of Deviation: Duration of Deviation:
Number of Deviations:
Probable Cause of Deviation:
Response Steps Taken:
Permit Requirement (specify permit condition #)
Date of Deviation: Duration of Deviation:
Number of Deviations:
Probable Cause of Deviation:
Response Steps Taken:

Page 2 of 2 of Quarterly Deviation And Compliance Monitoring Report	
Permit Requirement (specify permit condition #)	
Date of Deviation:	Duration of Deviation:
Number of Deviations:	
Probable Cause of Deviation:	
Response Steps Taken:	
Permit Requirement (specify permit condition #)	
Date of Deviation:	Duration of Deviation:
Number of Deviations:	
Probable Cause of Deviation:	
Response Steps Taken:	
Permit Requirement (specify permit condition #)	
Date of Deviation:	Duration of Deviation:
Number of Deviations:	
Probable Cause of Deviation:	
Response Steps Taken:	

Form Completed By:
Title/Position:
Date:
Telephone:

Attach a signed certification to complete this report.

INDIANA Department of Environmental Management
Office of Air Quality

Technical Support Document (TSD) for a Part 70 Significant Source Modification

Source Background and Description

Source Name:	U.S. Steel – Gary Works
Source Location:	One North Broadway, Gary Indiana, 46402
Mailing Address:	One North Broadway, Gary Indiana, 46402
County:	Lake
SIC Code:	3312
Source Categories:	1 of 28 Listed Source Categories Major Source under PSD and Emission Offset Major Source under Section 112 of the CAA Part 70 Source
Significant Source Modification No.:	**089-20118-00121**
Permit Writer:	Iryn Calilung 317/233-5692

U.S. Steel – Gary Works owns and operates a fully integrated iron and steel mill, located in One North Broadway, Gary Indiana, 46402. US Steel - Gary Works operates four (4) blast furnaces at this mill. The furnaces are designated as:

- No. 4 Blast Furnace,
- No. 6 Blast Furnace,
- No. 8 Blast Furnace, and
- No. 13 Blast Furnace.

This modification only involves the relining of the No. 13 Blast Furnace. The relining of this furnace is intended to increase the actual production of steel that will be utilized at the mill's two (2) steel making facilities: No. 1 BOP Shop and No. 2 Q-BOP Shop. The maximum annual production after the reline of this furnace is 3,650,000 tons per year of hot metal.

Additionally, U.S. Steel – Gary Works has informed the Office of Air Quality (OAQ) that with this project No. 13 Blast Furnace will be renamed No. 14 Blast Furnace.

On September 24, 2004, US Steel – Gary Works initially submitted a new source review application as a major modification to the existing major source. However, on May 25, 2005, US Steel - Gary Works amended the application by re-evaluating the proposed relined of the furnace using the Actual-to Projected Actual Applicability test. In using this major applicability specific test, US Steel - Gary Works concluded that the project would not be a major modification and emission offsets would not be required.

US Steel - Gary Works submitted an interim construction petition on May 9, 2005. The interim construction petition was approved by OAQ on June 16, 2005.

Description of No. 14 Blast Furnace Reline Project

U.S. Steel – Gary Works is proposing the following changes:

(1) Specific changes as part of the No. 14 Blast Furnace Reline Project

Modifications to existing No. 14 Blast Furnace (formerly No. 13 Blast Furnace) by a detailed reline using thinner refractory brick resulting in an increase in the working volume of the furnace.

(a) Replacement of the furnace refractory lining with new and thinner refractory brick.

(b) Replacement of furnace shell.

(c) Removal and replacement of the top charging system with a new "bell-less" charging system.

(d) Placement of new copper staves in the mantle area of the furnace.

(e) Installation of new copper cooling plates and a new bustle pipe.

(f) Repair of the checker work brick in the stoves and various structural, mechanical and electrical repairs.

(g) Enlargement of the slag granulator and addition of a stack.

(h) Changes to the casthouse and casthouse emissions control system to improve capture efficiency of hoods at the tap holes, iron troughs and runners.

The specific units involved are:

(a) No. 14 Blast Furnace (formerly No. 13 Blast Furnace), constructed in 1974, with a maximum capacity of 450 tons per hour, using a Blast Furnace Gas Distribution System to collect the blast furnace gas and using pulverized coal at a rate of 80 tons per hour, oil at a rate of 150 gallons permit minute and/or coal tar at a rate of 150 gallons per minute.

(b) Three (3) No. 14 Blast Furnace Stoves, constructed in 1974, with a maximum heat input capacity of 330 MMBtu per hour each, combusting blast furnace gas and natural gas.

(c) No. 14 Blast Furnace Casthouse, constructed in 1974 with emissions controlled by a baghouse.

(d) One (1) Slag Pit, with fugitive emissions.

The project only involves changes to the No. 14 Blast Furnace and will not affect Nos. 4, 6, and 8 Blast Furnaces.

(2) Units affected by the No. 14 Blast Furnace Reline

(a) The physical changes to the No. 14 Blast Furnace and the limited hot metal production will affect the No. 1 BOP and No. 2 Q-BOP:

The additional hot metal that will result from the No. 14 Blast Furnace Project will be utilized at the two (2) BOP Shops to produce additional steel. It is expected that the project will increase plant-wide production of steel by 17,627 tons per year (see Actual-to-Projected Actual Applicability Test portion of this TSD for details).

(b) No physical changes will be made at the following facilities and the maximum capacities will not be affected by the proposed relining of No. 14 Blast Furnace. However, there will be increase in actual production or usage corresponding with the increase in actual hot metal production of No. 14 Blast Furnace. These net emissions increases from these facilities will be accounted for in the Actual-to-Projected Actual Applicability Test.

- - Pulverized Coal Injection Facility

- - Self Fluxing Pellets Handling Facilities

- - Turboblower Boiler House (TBBH)

- - Sinter Plant

- - 84-Inch Hot Strip Mill

(c) Coke Plant
USS has an on-site coke plant for the production of coke used at the blast furnaces. The coke plant is currently producing at its maximum capacity and some coke requirements for the blast furnaces are currently being purchased from offsite sources. The consumption of coke will increase at No. 14 Blast Furnace as a result of the project.

However, the project cannot result in an increase in coke production because the coke plant is utilized at full capacity now.

The project is expected to result in an increase in the amount of coke purchased offsite equal to the increase in coke consumption at No. 14 Blast Furnace.

Actual-to-Projected Actual Applicability Test

(1) Based on the Actual-to-Projected Actual Applicability test for existing major source under 326 IAC 2-2-2(d)(3) and 326 IAC 2-3-2(c)(3), this modification at a major stationary source will not be major for Prevention of Significant Deterioration (PSD) under 326 IAC 2-2 and Emission Offset under 326 IAC 2-3.

U.S. Steel – Gary Works has provided emissions calculations as part of their application. These calculations are attached as part of this TSD. The OAQ has not reviewed this information and will not be making any determination in this regard as part of this approval. The following is the summary of the information submitted by US Steel - Gary Works.

Table 1 - - Actual-to Projected Actual

Rule Citation	Evaluation	Result
[326 IAC 2-2-1(e)] [326 IAC 2-3-1(d)]	Baseline Actual Hot Metal Production Rate (with no adjustment) : This baseline actual hot metal production rate was based at 8,330 tons per day.	3,040,408 tons per year
[326 IAC 2-2-1(rr)(2)(A)(iii)] [326 IAC 2-3-1(mm)(2)(A)(iii)]	Baseline Actual Hot Metal Production (adjusted based on production that could have been accommodated): This baseline actual hot metal production rate was based at 8,864 tons per day.	3,235,312 tons per year
	Baseline Years 24-month period within the 10 year period	June 1996 to May 2008
[326 IAC 2-2-1(rr)] [326 IAC 2-3-1(mm)]	Projected Actual Hot Metal Production Rate: This projected actual hot metal production rate was based at 9,200 tons per day at 96.87% availability. This projected actual hot metal production rate is lowered from the design capacity of the furnace at 9,200 tons per day at 97.5% availability.	3,252,939 tons per year
[326 IAC 2-2-2(d)(3)] [326 IAC 2-3-2(c)(3)]	Estimated Emissions Increase = Projected Actual Hot Metal Production minus Baseline Actual Hot Metal Production adjusted based on production that could have been accommodated = 3,252,939 tons/year - 3,235,312 tons/year	17,627 tons per year

(2) The table below reflects the emission increases resulting from the No. 14 Blast Furnace Reline Project based on the projected hot metal production increase of 17,627 tons per year.

Emissions were calculated for two (2) scenarios:

(a) All additional hot metal produced at the No. 14 Blast Furnace will be processed through the No. 1 BOP Shop.

(b) All additional metal produced at the No. 14 Blast Furnace will be processed through the No. 2 Q-BOP Shop.

Table 2 - - Net Emissions Increases

Pollutant	Estimated Emissions Increases (tons/year)		Significant Emissions Thresholds (tons/ year)	PSD/EO Review (Y/N)
	No. 1 BOP Shop	No. 2 Q-BOP		
PM	3.514	4.209	25	No
PM_{10}	2.144	3.837	15	No
SO_2	7.172	7.172	40	No
NO_X	2.415	2.446	40	No
CO	96.791	99.017	100	No
VOC	0.054	0.054	25	No
Pb	0.008	0.002	0.6	No
H_2S	0.357	0.357	10	No
F	0.107	0.107	3	No
Be	4.4E-08	4.4E-08	0.0004	No
Hg	9.7E-07	2.2E-06	0.1	No
Individual HAP	0.021	0.037	10	No
Total HAPs	0.090	0.115	25	No

(3) Based on the determination made by US Steel - Gary Works, the proposed modification is not a major modification under 326 IAC 2-2 (PSD) and 326 IAC 2-3 (Emission Offset).

(4) US Steel - Gary Works will be required to maintain records to verify compliance with the proposed projected actual hot metal production of No. 14 Blast Furnace.

VOC De Minimis Determination

(1) Lake County is classified as a severe nonattainment area for ozone.

(2) Since US Steel - Gary Works is located in Lake County, the proposed modification must be evaluated to determine if it is a minor modification in terms of 326 IAC 2-3 by determining if the VOC emissions increase is de minimis. [326 IAC 2-3-1(z)]

(3) De minimis means a VOC increase that does not exceed twenty-five (25) tons per year when the net emissions increases from the proposed modification are aggregated with all other net emissions increases from the source over a five (5) consecutive calendar year period prior to, and including, the year of the modification. [326 IAC 2-3-1(q)]

(4) The following table summarizes the issued approvals during calendar years January 2000 to December 2005 and their corresponding VOC increases. This information is taken from OAQ's permit database.

(5) The VOC emissions increases over the previous five (5) calendar years plus the emission increase from the current modification result in emission increases less than the de minimis level, therefore this modification is considered a minor modification and not subject to the requirements of 326 IAC 2-3 (Emission Offset). [326 IAC 2-3-2(b)]

(6) The following table summarizes the issued approvals for US Steel - Gary Works and its contractors from calendar years January 2000 to December 2005.

Acronyms of Permit Type:
SSM - - Significant Source Modification
RR - - Review Request
MSM - Minor Source Modification
E - - Exemption
SPM - - Significant Source Modification
AA - - Administrative Amendment

Table 3 - - VOC Net Emissions Increases From 2000 to 2005

Company Name	Permit	Issuance Date	Permit Type	Project	VOC (tons/year)
US Steel Gary Works (089-00121)	20188	***Pending***	SSM	No. 14 Blast Furnace (13 Blast Furnace Reline) (see Table 2 of this TSD)	0.054
	19709	05/02/2005	SSM	84-Inch Hot Strip Mill	1.06
	19678	10/29/2004	SSM	Temporary Rental Boiler and Coke Plant Boilers	6.51
	18862	05/27/2004	RR	Nos. 5 & 6 ET Lines Fumes/Mist Collector	0
	16365	09/16/2004	RR	CAA 122(j) Applicability Determination	0
	16676	02/11/2003	RR	Experimental Operation in No. 3 Sinter Plant	0
	15694	08/21/2002	MSM	Electrogalvanizing Line Package Boiler upgrade	0.54
	15929	06/20/2002	E	BOP Building Roof monitor Control	0
	15358	03/22/2002	RR	Exp Operation #1 BOP Prototype Fugitive Control	0
	15121	03/14/2002	MSM	Nos. 5 & 7 Batteries Baghouse Replacement	0

Table 3 - - VOC Net Emissions Increases From 2000 to 2005					
Company Name	Permit	Issuance Date	Permit Type	Project	VOC (tons/year)
US Steel Gary Works (089-00121)	14988	07/19/2002	SPM	160/210-inch Plate Mill Heat Treatment Furnace (natural gas fuel limitation)	0.42
	14950	11/30/2001	AA	Amendment of MSM 14658	0
	14692	12/17/2001	E	Coal Binding/Conveyance Unit	0
	14649	08/23/2001	RR	Experimental Operation Blast Furnace No. 6	0
	14658	10/02/2001	MSM	Coke Plant Boiler House Lime Storage Baghouse	0
	14424	08/02/2001	MSM	EGL Boiler Modifications	0.072
	12880	07/26/2001	SSM	Nos. 1, 2 and 3 Sinter Strands Modifications and Injections Jets on the Coke Oven Battery	0.75
	11500	08/03/2001	E	Grand Calumet River Sediment Remediation	0
	12137	10/16/2000	MSM	TBBH Boilers Nos. 1, 2, and 3 Modification	0
	11953	04/05/2000	AA	Amendment of MSM 10551	0
	10160	01/13/2000	MSM	BFG Burners of TBBH Boiler No. 6	0.91
American Excavating (089-05250)	18512	03/12/2004	MSM	Portable Stone and Metal Slag Processing Plant	0
Brandenburg Industrial Service Co. (089-00176)	16450	12/31/2003	SSM	Paint Booth	0.12
	19781	03/01/2005	SSM		2.051
Heritage Slag Products (089-05210)	14947	04/18/2002	AA	Name Change	0
	14723	08/21/2001	AA	Name Change	0
	14305	06/22/2001	AA	Amendment of SSM 11824	0
	13821	04/23/2001	SSM	Slag Crushing and Screening	0
	11824	06/12/2000	SSM	Slag Crushing & Screening (generator fuel limit)	0.21
Edward C. Levy Co. (089-00133)	14295	06/14/2001	MSM	Parts Washer	0.36
International Mill Service (089-00132)	16366	09/20/2004	RR	CAA 112 (j) Applicability Determination	0
Koppers Inc. (089-00180)	12187	04/19/2002	MSM	Coke Oven Battery Tar Handling/Disposition System	6.56
Refractory Materials International (089-00455)	12152	05/25/2000	E	BOP Filter Cake Briquetting	0
				Total	**19.62**
				De Minimis Level	**25.0**

Permit Level Determination

US Steel - Gary Works is being modified through a Part 70 Significant Source Modification. This modification is being performed pursuant to 326 IAC 2-7-10.5(f)(4) because the potential to emit PM, PM_{10}, SO_2, and NO_X exceed twenty-five (25) tons per year (see attached calculations as Appendix A of this TSD).

Source Status

(1) This existing source is a major stationary source because at least one regulated pollutant is emitted at a rate of 100 tons per year or more, and it is one of the 28 listed source categories.

(2) US Steel – Gary Works submitted an application for a Part 70 Permit on December 13, 1996. The Part 70 permit application is presently under review by OAQ.

County Attainment Status

U.S. Steel – Gary Works is located in Lake County.

Table 4 - - County Status

Pollutant	Status
PM2.5	Nonattainment
PM10	Attainment
SO_2	Primary Nonattainment
NO_2	Attainment
1-hour Ozone	Severe Nonattainment
8-hour Ozone	Moderate Nonattainment
CO	Attainment
Lead	Attainment

(1) VOC and NOx
Volatile organic compounds (VOC) and Nitrogen Oxides (NOx) are regulated under the Clean Air Act (CAA) for the purpose of attaining and maintaining the National Ambient Air Quality Standards (NAAQS) for ozone.

(a) On January 26, 1996 in 40 CFR 52.777(i), the U.S. EPA granted a waiver of the requirements of Section 182(f) of the CAA for Lake and Porter Counties, including the lower NOx threshold for nonattainment new source review. Therefore, VOC emissions alone are considered when evaluating the rule applicability relating to the 1-hour ozone standards.

Lake County has been designated as nonattainment in Indiana for the 1-hour ozone standard. Therefore, VOC emissions were reviewed pursuant to the requirements for Emission Offset, 326 IAC 2-3.

(b) VOC and NOx emissions are considered when evaluating the rule applicability relating to the 8-hour ozone standard. Lake County has been designated as nonattainment for the 8-hour ozone standard. Therefore, VOC and NOx emissions were reviewed pursuant to the requirements for Emission Offset, 326 IAC 2-3.

(2) PM2.5
U.S. EPA in Federal Register Notice 70 FR 943 dated January 5, 2005 has designated Lake County as nonattainment for PM2.5. On March 7, 2005 the Indiana Attorney General's Office on behalf of IDEM filed a law suit with the Court of Appeals for the District of Columbia challenging U.S. EPA's designation of nonattainment areas without sufficient data. However, in order to ensure that sources are not potentially liable for Violation of the Clean Air act, the OAQ is following the U.S. EPA's guidance to regulate PM-10 emissions as surrogate for PM2.5 emissions pursuant to the Nonattainment New Source Review requirements.

(3) SO_2
Lake County has been classified as non-attainment for SO_2. Therefore, these emissions were reviewed pursuant to the requirements for Emission Offset, 326 IAC 2-3.

(4) PM_{10}, CO, NO_X and Lead
Lake County has been classified as attainment or unclassifiable for PM_{10}, CO, NO_X and Lead. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.

Federal Rule Applicability

(1) New Source Performance Standards (NSPS) 40 CFR 60
The reline of the No. 14 Blast Furnace does not qualify as construction or reconstruction and therefore, there are no New Source Performance Standards (NSPS) included in the permit for the No. 14 Blast Furnace.

(2) National Emission Standards for Hazardous Air Pollutants (NESHAPs) 40 CFR 63

(a) Even prior to the proposed reline, the No. 14 Blast Furnace was subject to the requirements of National Emission Standards for Hazardous Air Pollutants (NESHAPs) 40 CFR 63, Subpart FFFFF, National Emission Standards for Integrated Iron and Steel Manufacturing Facilities, as an existing affected unit and is located at an integrated iron and steel manufacturing facility that is a major source of hazardous air pollutants.

Pursuant to 40 CFR 63.7783(a), for an existing affected source, each emission limitation and operation and maintenance requirement in this subpart applies no later than May 22, 2006.

(b) The No. 14 Blast Furnace is not subject to the requirements of National Emission Standards for Hazardous Air Pollutants (NESHAPs) 40 CFR 63, Subpart DDDDD National Emission Standards for Commercial, Industrial and Institutional Boilers because stoves at blast furnaces are exempt from this NESHAP. Therefore, there are no NESHAP Subpart DDDDD requirements included in the permit for the No. 14 Blast Furnace.

State Rule Applicability

(1) Even prior to the proposed reline, the No. 14 Blast Furnace was subject to the following applicable requirements:

(1) 326 IAC 6.8-2-38 (formerly 6-1-10.1(d)(36)) Lake County PM_{10} Emission Requirements

(2) 326 IAC 6.8-3-4 Opacity Limitations

(3) 326 IAC 7-4.1-20 (formerly 326 IAC 7-4-1.1(c)(22)) Sulfur Dioxide (SO_2)

(4) 326 IAC 9-1-2(2) Carbon Monoxide (CO) Limitations

(2) 326 IAC 2-2 (PSD) and 326 IAC 2-3 (Emission Offset)
Based on the determination made by US Steel - Gary Works, using the Actual-to-Projected Actual Applicability test, the proposed modification is not a major modification.

(3) There are no new or additional state rules that apply to the No. 14 Blast Furnace due to the project.

Recommendation and Conclusion

(a) The staff recommends to the Commissioner that the Part 70 Significant Source Modification be approved.

(b) Unless otherwise stated, information used in this review was derived from the application and additional information submitted by the applicant.

An application for the purposes of this review was received on September 24, 2004. Additional information was received on November 18, 2004; January 3, 2005; January 28, 2005; May 6, 2005; May 24, 2005; June 10, 2005; and September 7, 2005.

(c) The construction and operation of this proposed modification shall be subject to the conditions of operation of the attached Part 70 Significant Source Modification No. **089-20118-000121.**

(d) A copy of the preliminary findings is also available on the Internet at:
www.IN.gov/idem/air/permits/Air-Permits-Online.

IDEM Contact

Questions regarding this proposed permit can be directed to Iryn Calilung at the Indiana Department Environmental Management, Office of Air Quality, 100 North Senate Avenue, Indianapolis, Indiana 46204 or by telephone at (317) 233-5692 or toll free at 1-800-451-6027 extension 3-5692.

For additional information about air permits and how the public and interested parties can participate, refer to the IDEM's Guide for Citizen Participation and Permit Guide on the Internet at:
www.IN.gov/idem/guides.