



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: April 25, 2007  
RE: AK Steel Corporation/ 147-23585-00041  
FROM: Nisha Sizemore  
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 03/23/06



INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
*We make Indiana a cleaner, healthier place to live.*

Mitchell E. Daniels, Jr.  
Governor

Thomas W. Easterly  
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Indianapolis, Indiana 46204-2251  
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(800) 451-6027  
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Mr. David Miracle  
AK Steel Corporation – Rockport Works  
6500 North U.S. 231  
Rockport, Indiana 47635

April 25, 2007

Re: 147-23585-00041  
PSD/Significant Source Modification to:  
Part 70 Source (T147-11043-00041)

Dear Mr. Miracle:

AK Steel Corporation – Rockport Works, was issued Part 70 operating permit T147-11043-00041 on September 1, 2006 for a steel coil finishing plant. An application to modify the Part 70 source was received on August 29, 2006. The source modification involves the analysis of NOx PSD BACT for the existing permitted Continuous Pickling Line (CPL) that was excluded from the NOx PSD BACT analysis done in PSD Permit No. 147-6713-00041, issued on February 13, 1997. Therefore this modification is subject to 326 IAC 2-7-10.5, Significant Source Modification and Prevention of Significant Deterioration (PSD) review under 326 IAC 2-2.

The following construction conditions are applicable to the proposed project:

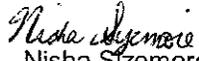
General Construction Conditions

- (a) The data and information supplied with the application shall be considered part of this source modification approval. Prior to any proposed change in construction which may affect the potential to emit (PTE) of the proposed project, the change must be approved by the Office of Air Quality (OAQ).
- (b) This approval 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.
- (c) Effective Date of the Permit  
Pursuant to IC 13-15-5-3, this approval becomes effective upon its issuance.
- (d) Revocation of Permits [326 IAC 2-2-8]  
Pursuant to 326 IAC 2-2-8(a)(1), this permit to construct shall expire if construction is not commenced within eighteen (18) months after receipt of this approval or if construction is discontinued for a period of eighteen (18) months or more.
- (e) All requirements and conditions of this construction approval shall remain in effect unless modified in a manner consistent with procedures established pursuant to 326 IAC 2.

- (f) Pursuant to 326 IAC 2-7-10.5(l) the emission units constructed under this approval shall not be placed into operation prior to revision of the source's Part 70 Operating Permit to incorporate the required operation conditions.

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 call (800) 451-6027, and ask for Aida De Guzman or extension (3-4972), or dial (317) 233-4972.

Sincerely,

  
Nisha Sizemore, Chief  
Permits Branch  
Office of Air Quality

Attachments

APD

CC: Spencer County  
Spencer County Health Department  
Air Compliance Section Inspector -Derrick Ohning  
Southwest Regional Office  
Compliance Data Section  
Administrative and Development



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**PREVENTION OF SIGNIFICANT DETERIORATION/SIGNIFICANT SOURCE MODIFICATION TO A PART 70 SOURCE**

**AK Steel Corporation  
Rockport Works  
6500 North U.S. 231  
P.O. Box 45  
Rockport, Indiana 47635**

and two on-site contractors:

**Air Liquide Industrial, U.S.L.P.  
6500 North US Route 231  
Rockport, Indiana 47635**

and

**Precision Strip, Inc.  
6500 North US Route 231  
Rockport, Indiana 47635**

This permit is issued to the above mentioned company (herein known as the Permittee) under the provisions of 326 IAC 2-2, Prevention of Significant Deterioration (PSD); and 40 CFR 124 (Procedures for Decision Making), subject to the conditions contained herein, of this permit.

This permit 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.

PSD/Significant Source Modification No.: 147-23585-00031	
Issued by: <i>Nisha Sizemore</i> Nisha Sizemore, Chief Permits Branch Office of Air Quality	Issuance Date:  April 25, 2-07

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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, A.2, A.3, and A.4 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)]

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The Permittee owns and operates a stationary steel coil finishing plant with ancillary equipment.

Source Address: 6500 North U.S. 231, Rockport, Indiana, 47635  
Mailing Address: Same  
General Source Phone Number: 812/362-6144  
SIC Code: 3312  
County Location: Spencer  
Source Location Status: Attainment for all criteria pollutants  
Source Status: Part 70 Permit Program  
Major Source, under PSD Rule;  
1 of 28 Source Categories

### A.2 Part 70 Source Definition [326 IAC 2-7-1(22)]

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This stationary source consists of three companies; one primary source, and two on-site contractors. The primary source is:

AK Steel Corporation (147-00041), a steel coil finishing operation, is located at 6500 North U.S. 231, Rockport, Indiana, 47635.

The two on-site contractors are:

- (a) Air Liquide Industrial, U.S.L.P. (147-00049), an industrial gas production operation located inside the AK Steel plant, at 6500 North US Route 231, Rockport, Indiana 47635; and
- (b) Precision Strip, Inc. (147-00051), a slitting operation located inside the AK Steel plant, at 6500 North US Route 231, Rockport, Indiana 47635.

One document for the Part 70 operating permit will be issued to AK Steel. Air Liquide Industrial, U.S.L.P. and Precision Strip, Inc., are included in this document, Operating Permit No. 147-11043-00041.

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

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This stationary source consists of the following emission units, and pollution control devices:

#### AK STEEL

- (a) A Continuous Anneal and Pickling Line (APL) with a maximum normal capacity of 130 tons per hour consisting of:
  - (1) one (1) flattener,
  - (2) one (1) shear,
  - (3) one (1) laser welder,
  - (4) one (1) leveller shear,
  - (5) one (1) alkaline cleaner section exhausting through a wet scrubber system to Stack S06,
  - (6) one (1) 110.0 MMBtu/hr natural gas-fired annealing furnace section equipped with low-NOx burners with integral exhaust gas recirculation (or equivalent) exhausting to Stack S07A,
  - (7) one (1) 55.0 MMBtu/hr natural gas-fired annealing furnace section equipped with low-NOx burners with integral exhaust gas recirculation (or equivalent) exhausting to Stack S07B,

- (8) one (1) air quench station consisting of 10 sections exhausting through a baghouse to Stack S08,
  - (9) one (1) water quench sections,
  - (10) one (1) cooling tower with 1650 gallons per minute recirculating capacity,
  - (11) one (1) enclosed shot blasting chamber exhausting through a baghouse to Stack S05,
  - (12) electrolytic pickle and rinse tanks exhausting through a wet scrubber system to Stack S09A,
  - (13) mixed acids pickle and rinse tanks exhausting through a multi-stage oxidation/reduction and acid neutralization scrubbing system to Stack S09B,
  - (14) one (1) steam heated strip dryer,
  - (15) skin pass temper mill and roll cleaning dust collection system exhausting through individual baghouses to Stack S09C, and
  - (16) one (1) tension/leveller and side trimmer.
- (b) A Continuous Pickling Line (CPL) with a maximum normal capacity of 476 tons per hour consisting of:
- (1) one (1) strip leveller and one (1) mechanical scale breaker exhausting through a baghouse to Stack S01,
  - (2) one (1) laser welder and one (1) tension leveller,
  - (3) three (3) HCl (Hydrochloric) acid pickle and rinse tanks;
    - (A) when processing carbon steel only: three (3) HCl acid pickle and rinse tanks exhausting through a wet scrubber system to Stack S02;
    - (B) when processing stainless steels only: three (3) HCl acid pickle tanks exhausting through a wet scrubber system to Stack S02; mixed acid and rinse tanks exhausting through a wet scrubber system Stack S02, through the electrolytic pickle scrubber system on the APL to Stack S09A, and exhausting through the multi-stage oxidation/reduction and acid neutralization scrubbing system on the APL at Stack S09B.
  - (4) one (1) steam heated pickle dryer,
  - (5) one (1) shear/trimmer, and
  - (6) one (1) CPL electrostatic oiler.
- (c) A Continuous Cold Mill (CCM) with a maximum normal capacity of 660 tons per hour consisting of:
- (1) one (1) strip leveller and one (1) shear,
  - (2) one (1) laser welder,
  - (3) five (5) cold reduction mills exhausting through one (1) mist elimination system to Stack S11; and
  - (4) one (1) cold mill rotary shear and tension reels.
- (d) One (1) Temper Mill with a maximum capacity of 300 tons per hour exhausting through one (1) oil mist elimination system to Stack S16.
- (e) A Continuous Galvanizing Line (CGL) with a maximum normal capacity of 183.6 tons per hour consisting of:
- (1) one (1) flattener,
  - (2) one (1) mash seam welder,
  - (3) alkaline cleaning system exhausting through a wet scrubber system to Stack S17,
  - (4) one (1) 4.1 MMBtu/hr natural gas-fired cleaning section dryer,
  - (5) one (1) 205.7 MMBtu/hr annealing furnace with a continuous emissions monitor (CEM) and controlled by a selective catalytic reduction (SCR) system exhausting to Stack S18,
  - (6) one (1) 7.0 MMBtu/hr natural gas-fired back-up galvanneal soak section burner,
  - (7) one (1) 2.05 MMBtu/hr natural gas-fired preheater for the zinc pot equipment,
  - (8) one (1) induction zinc premelt pot,
  - (9) one (1) induction heated zinc coating pot,
  - (10) one (1) 0.82 MMBtu/hr natural gas-fired edge burner,

- (11) one (1) water quench cooling section with a closed loop, recirculating water spray,
  - (12) one (1) 4.1 MMBtu/hr natural gas-fired dryer,
  - (13) one (1) skin pass temper mill and one (1) tension leveller,
  - (14) one (1) chromate application system with one (1) roll coater,
  - (15) one (1) 6.0 MMBtu/hr natural gas-fired dryer,
  - (16) one (1) phosphate application system with one (1) roll coater,
  - (17) one (1) 5.68 MMBtu/hr natural gas-fired dryer,
  - (18) one (1) CGL electrostatic oiler, and
  - (19) one (1) rotary shear.
- (f) A Roll Repair Shop consisting of:
- (1) Two (2) electrolytic chrome dip tanks, identified as 1 East and 1 West constructed in 1998, rated at 36 tons per hour steel rolls each, or 5.5 gallons per hour chromium solution, with both exhausting through a composite mesh pad mist elimination system to Stack S15.
  - (2) One (1) electrodischarge texturing machine exhausting through a baghouse to the interior of the building.
- (g) Ancillary Equipment, as listed is;
- (1) Hydrogen batch annealing with fifteen (15) natural gas-fired furnaces with low-NOx burners rated at 6.75 MMBtu/hr exhausting through the roof vent system in building 500;
  - (2) Space heaters and air make-up units with each unit limited to no more than 5.2 MMBtu/hr and a combined rating limited to no more than 251 MMBtu/hr;
  - (3) Two (2) non-contact cooling towers with mist drift eliminators exhausting to the atmosphere;
  - (4) Storage tanks for HCl acid, nitric acid, and HF (Hydrofluoric) acid exhausting through a fume scrubber to Stack S04 consisting of:
    - (A) One (1) HF acid tank with a capacity of 20,000 gallons;
    - (B) One (1) nitric acid tank with a capacity of 20,000 gallons;
    - (C) Three (3) waste acid tanks, each with a capacity of 40,000 gallons, or 120,000 gallons combined;
    - (D) Three (3) HCL/ra acid tanks, each with a capacity of 20,000 gallons, or 60,000 gallons combined; and
    - (E) Two (2) CPL waste acid tanks, each with a capacity of 20,000 gallons, or 40,000 gallons combined.
  - (5) Miscellaneous storage tanks at the continuous cold mill (CCM) operation not to exceed an overall capacity of 353,000 gallons, consisting of:
    - (A) Two (2) Mergoil System 2 tanks, No.1 and No.2, each with a capacity of 18,500 gallons, or 37,000 gallons combined;
    - (B) One (1) CCM gear lube tank, with a capacity of 13,500 gallons;
    - (C) One (1) base oil storage tank, with a capacity of 10,000 gallons;
    - (D) One (1) direct oil tank, with a capacity of 4,000 gallons;
    - (E) Two (2) Emulsion tanks, No.1 and No.2, each with a capacity of 88,000 gallons, or 176,000 gallons combined; and

- (F) Two (2) Emulsion tanks, No.3 and No.4, each with a capacity of 44,000 gallons, or 88,000 gallons combined.
- (6) Miscellaneous storage tanks at the temper mill operation not to exceed an overall capacity of 131,000 gallons, consisting of:
  - (A) One (1) direct oil application tank, with a capacity of 4,000 gallons;
  - (B) Three (3) temper mill tanks, TM1-UZ203, LSL-01, 02, and 03, each with a capacity of 10,000 gallons, or 30,000 gallons combined;
  - (C) One (1) base oil tank, with a capacity of 8,000 gallons;
  - (D) One (1) solution tank, with a capacity of 3,200 gallons;
  - (E) One (1) gear lube tank, TM-1-P-2084, with a capacity of 2,100 gallons; and
  - (F) Two (2) Morgoil tanks, TM-1-P-2000 and 99, each with a capacity of 5,300 gallons, or 10,600 gallons combined.
- (7) Miscellaneous oil storage tanks for the continuous galvanizing line (CGL) not to exceed an overall capacity of 16,250 gallons, consisting of:
  - (A) One (1) tank, GL1-PGOL-TNK-01, with a capacity of 6,000 gallons; and
  - (B) Three (3) tanks, GL1-PGOL-TNK-02, 03, and 04, each with a capacity of 3,000 gallons, or 9,000 gallons combined.
- (8) A miscellaneous oil storage tank for the continuous pickling line (CPL), consisting of one (1) CPL pickling tank, with a capacity of 15,000 gallons.
- (h) Rolling oils, rust preventative oils, and prelube oils.
- (i) Process boilers consisting of:
  - (1) North Boilers: Two (2) natural gas-fired boilers with ultra low-NOx burners, constructed in 1998, each rated at 76.0 MMBtu/hr heat input, exhausting to Stack S03.
  - (2) South Boilers: Two (2) natural gas-fired boilers with ultra low-NOx burners, constructed in 1998, each rated at 76.0 MMBtu/hr heat input, exhausting to Stack S20.

A.4 Insignificant Activities [326 IAC 2-7-1(21)] [326 IAC 2-7-4(c)] [326 IAC 2-7-5(15)]

- (a) This stationary source also includes the following insignificant activities, operated by AK Steel, which are not specifically regulated, as defined in 326 IAC 2-7-1(21):
  - (1) Emissions from a laboratory as defined in this clause.
    - (A) Three (3) chemical – process testing laboratories: one each at the APL, CPL, and Roll Shop.
    - (B) One (1) process sample testing laboratory located at the WWTP (Waste Water Treatment Plant).
    - (C) One (1) process sample testing laboratory located at the Fluids Manager complex.
    - (D) One (1) steel sample physical laboratory and fume hood located in the CGL.
  - (2) Fuel dispensing activities, including the following:
    - (A) One (1) gasoline fuel transfer dispensing operation, handling less than 1,300 gal/day, with storage tank capacity of 1,100 gallons.
    - (B) One (1) petroleum fuel other than gasoline dispensing operation, handling less than 3,500 gal/day, with storage tank capacity of 1,100 gallons.

- (3) Production related activities, including the following:
    - (A) Four (4) roll grinders, wherein cutting coolant continuously floods the machining interface, located in the roll repair shop.
    - (B) One (1) soapy water bearing washer/degreasing operation with a capacity of approximately 50 gallons, located in the roll repair shop.
    - (C) One (1) waste water treatment plant for treatment of process waste water.
  - (4) Activities associated with the following recovery systems: four (4) rolling oil circulation and recovery systems, located in the CCM Emulsion Room.
  - (5) Repair activities, including the following:
    - (A) Repair of baghouses, mist eliminators and scrubbers.
    - (B) Cleaning of APL cooling tower.
    - (C) Changeover from carbon to stainless and vice versa at the CPL.
  - (6) Flue gas conditioning systems and associated chemicals, such as the following: Ammonia is used in the deNOx system on the CGL Annealing Furnace.
  - (7) Blowdown for the following:
    - (A) Four (4) natural gas-fired boilers, listed in Section D.8, are equipped with automatic blowdown.
    - (B) Four (4) cooling towers, listed as ancillary equipment or in specific processes, are equipped with automatic blowdown.
  - (8) Activities associated with emergencies, including the following emergency generators:
    - (A) Diesel Powered – 519 HP, located at Primary Substation
    - (B) Diesel Powered – 1109 HP, located at CGL
    - (C) Diesel Powered – 1180 HP, located at CCM
    - (D) Diesel Powered – 349 HP, located at TM
    - (E) Diesel Powered – 1039 HP, located at APL/CPL
    - (F) Diesel Powered – 1039 HP, located at Reservoir
    - (G) Diesel Powered – 235 HP, located at Reservoir - Fire
- (b) This stationary source also includes the following insignificant activities, operated by on-site contractors, which are specifically regulated, as defined in 326 IAC 2-7-1(21):

**AIR LIQUIDE INDUSTRIAL, U.S.L.P.**

- (a) One (1) hydrogen generator using natural gas as feedstock, maximum input capacity of 6.24 MMBtu/hr;
- (b) One (1) cooling tower, maximum capacity of 3,700 gallons per minute; and
- (c) One (1) natural gas-fired emergency generator, maximum capacity of 80 KVA, with natural gas consumption rate of 1,138 cuft per hour.

**PRECISION STRIP, INC.**

- (a) One (1) backup electrostatic oiler, with a maximum capacity of 123.2 pounds per hour oil, not to exceed 15% of Precision Strip's total operation.
- (b) Mechanical cold rolled steel coil slitting operation, rated at 176,000 pounds per hour coiled steel, using various oils, with no emissions.

A.5 Part 70 Permit Applicability [326 IAC 2-7-2]

This stationary source 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 CONDITIONS

### B.1 Definitions [326 IAC 2-7-1]

Terms in this permit shall have the definition assigned to such terms in the referenced regulation. In the absence of definitions in the referenced regulation, the applicable definitions found in the statutes or regulations (IC 13-11, 326 IAC 1-2 and 326 IAC 2-7) shall prevail.

### B.2 Permit Term [326 IAC 2-7-5(2)] [326 IAC 2-1.1-9.5] [326 IAC 2-7-4(a)(1)(D)] [IC 13-15-3-6(a)]

(a) This permit, T147-11043-00041, is issued for a fixed term of five (5) years from the issuance date of this permit, as determined in accordance with IC 4-21.5-3-5(f) and IC 13-15-5-3. Subsequent revisions, modifications, or amendments of this permit do not affect the expiration date of this permit or of permits issued pursuant to Title IV of the Clean Air Act and 326 IAC 21 (Acid Deposition Control).

(b) If IDEM, OAQ, upon receiving a timely and complete renewal permit application, fails to issue or deny the permit renewal prior to the expiration date of this permit, this existing permit shall not expire and all terms and conditions shall continue in effect, including any permit shield provided in 326 IAC 2-7-15, until the renewal permit has been issued or denied.

### B.3 Enforceability [326 IAC 2-7-7]

Unless otherwise stated, all terms and conditions in this permit, including any provisions designed to limit the source's potential to emit, are enforceable by IDEM, the United States Environmental Protection Agency (U.S. EPA) and by citizens in accordance with the Clean Air Act.

### B.4 Termination of Right to Operate [326 IAC 2-7-10] [326 IAC 2-7-4(a)]

The Permittee's right to operate this source terminates with the expiration of this permit unless a timely and complete renewal application is submitted at least nine (9) months prior to the date of expiration of the source's existing permit, consistent with 326 IAC 2-7-3 and 326 IAC 2-7-4(a).

### B.5 Severability [326 IAC 2-7-5(5)]

The provisions of this permit are severable; a determination that any portion of this permit is invalid shall not affect the validity of the remainder of the permit.

### B.6 Property Rights or Exclusive Privilege [326 IAC 2-7-5(6)(D)]

This permit does not convey any property rights of any sort or any exclusive privilege.

### B.7 Duty to Provide Information [326 IAC 2-7-5(6)(E)]

(a) The Permittee shall furnish to IDEM, OAQ, within a reasonable time, any information that IDEM, OAQ, may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. The submittal by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34). Upon request, the Permittee shall also furnish to IDEM, OAQ, copies of records required to be kept by this permit.

(b) For information furnished by the Permittee to IDEM, OAQ, the Permittee may include a claim of confidentiality in accordance with 326 IAC 17.1. When furnishing copies of requested records directly to U.S. EPA, the Permittee may assert a claim of confidentiality in accordance with 40 CFR 2, Subpart B.

### B.8 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).

**B.9 Annual Compliance Certification [326 IAC 2-7-6(5)]**

- (a) The Permittee shall annually submit a compliance certification report which addresses the status of the source's compliance with the terms and conditions contained in this permit, including emission limitations, standards, or work practices. The initial certification shall cover the time period from the date of final permit issuance through December 31 of the same year. All subsequent certifications shall cover the time period from January 1 to December 31 of the previous year, and shall be submitted no later than July 1 of each year to:

Indiana Department of Environmental Management  
Compliance Branch, Office of Air Quality  
100 North Senate Avenue, MC61-53  
Indianapolis, Indiana 46204-2251

and

United States Environmental Protection Agency, Region V  
Air and Radiation Division, Air Enforcement Branch - Indiana (AE-17J)  
77 West Jackson Boulevard  
Chicago, Illinois 60604-3590

- (b) The annual compliance certification report 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.
- (c) The annual compliance certification report shall include the following:
- (1) The appropriate identification of each term or condition of this permit that is the basis of the certification;
  - (2) The compliance status;
  - (3) Whether compliance was continuous or intermittent;
  - (4) The methods used for determining the compliance status of the source, currently and over the reporting period consistent with 326 IAC 2-7-5(3); and
  - (5) Such other facts, as specified in Sections D of this permit, as IDEM, OAQ, may require to determine the compliance status of the source.

The submittal by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

**B.10 Preventive Maintenance Plan [326 IAC 1-6-3] [326 IAC 2-7-5(1),(3) and (13)] [326 IAC 2-7-6(1) and (6)]**

- (a) The Permittee shall prepare and maintain Preventive Maintenance Plans (PMPs) within ninety (90) days after issuance of this permit for the source as described in 326 IAC 1-6-3. At a minimum, the PMPs shall include:
- (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.
- (b) A copy of the PMPs 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 PMPs whenever lack of proper maintenance causes or is the primary contributor to an exceedance

of any limitation on emissions or potential to emit. The PMPs do not require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

- (c) 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.

**B.11 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, 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: 317-233-0178 (ask for Compliance Section)  
Facsimile Number: 317-233-6865  
Telephone Number: 1-888-672-8323 (Southwest Regional Office)  
Facsimile Number: 812-380-2304 (Southwest Regional Office)

- (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, MC61-53  
Indianapolis, Indiana 46204-2251

and

IDEM Southwest Regional Office  
1120 North Vincennes Avenue  
P.O. Box 128  
Petersburg, Indiana 47567-0128

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) The Permittee seeking to establish the occurrence of an emergency shall make records available upon request to ensure that failure to implement a PMP did not cause or contribute to an exceedance of any limitations on emissions. However, IDEM, OAQ, may require that the Preventive Maintenance Plans required under 326 IAC 2-7-4(c)(9) 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.
- (h) The Permittee shall include all emergencies in the Quarterly Deviation and Compliance Monitoring Report.

**B.12 Permit Shield [326 IAC 2-7-15] [326 IAC 2-7-20] [326 IAC 2-7-12]**

- (a) Pursuant to 326 IAC 2-7-15, the Permittee has been granted a permit shield. The permit shield provides that compliance with the conditions of this permit shall be deemed compliance with any applicable requirements as of the date of permit issuance, provided that either the applicable requirements are included and specifically identified in this permit or the permit contains an explicit determination or concise summary of a determination that other specifically identified requirements are not applicable. The Indiana statutes from IC 13 and rules from 326 IAC, referenced in conditions in this permit, are those applicable at the time the permit was issued. The issuance or possession of this permit shall not alone constitute a defense against an alleged violation of any law, regulation or standard, except for the requirement to obtain a Part 70 permit under 326 IAC 2-7 or for applicable requirements for which a permit shield has been granted.

This permit shield does not extend to applicable requirements which are promulgated after the date of issuance of this permit unless this permit has been modified to reflect such new requirements.

- (b) If, after issuance of this permit, it is determined that the permit is in nonconformance with an applicable requirement that applied to the source on the date of permit issuance, IDEM, OAQ, shall immediately take steps to reopen and revise this permit and issue a compliance order to the Permittee to ensure expeditious compliance with the applicable requirement until the permit is reissued. The permit shield shall continue in effect so long as the Permittee is in compliance with the compliance order.
- (c) No permit shield shall apply to any permit term or condition that is determined after issuance of this permit to have been based on erroneous information supplied in the permit application. Erroneous information means information that the Permittee knew to be false, or in the exercise of reasonable care should have been known to be false, at the time the information was submitted.
- (d) Nothing in 326 IAC 2-7-15 or in this permit shall alter or affect the following:
  - (1) The provisions of Section 303 of the Clean Air Act (emergency orders), including the authority of the U.S. EPA under Section 303 of the Clean Air Act;

- (2) The liability of the Permittee for any violation of applicable requirements prior to or at the time of this permit's issuance;
  - (3) The applicable requirements of the acid rain program, consistent with Section 408(a) of the Clean Air Act; and
  - (4) The ability of U.S. EPA to obtain information from the Permittee under Section 114 of the Clean Air Act.
- (e) This permit shield is not applicable to any change made under 326 IAC 2-7-20(b)(2) (Sections 502(b)(10) of the Clean Air Act changes) and 326 IAC 2-7-20(c)(2) (trading based on State Implementation Plan (SIP) provisions).
  - (f) This permit shield is not applicable to modifications eligible for group processing until after IDEM, OAQ, has issued the modifications. [326 IAC 2-7-12(c)(7)]
  - (g) This permit shield is not applicable to minor Part 70 permit modifications until after IDEM, OAQ, has issued the modification. [326 IAC 2-7-12(b)(8)]

**B.13** Prior Permits Superseded [326 IAC 2-1.1-9.5][326 IAC 2-7-10.5]

- (a) All terms and conditions of permits established prior to T147-11043-00041 and issued pursuant to permitting programs approved into the state implementation plan have been either:
  - (1) incorporated as originally stated,
  - (2) revised under 326 IAC 2-7-10.5, or
  - (3) deleted under 326 IAC 2-7-10.5.
- (b) Provided that all terms and conditions are accurately reflected in this permit, all previous registrations and permits are superseded by this permit.

**B.14** Deviations from Permit Requirements and Conditions [326 IAC 2-7-5(3)(C)(ii)]

- (a) Deviations from any permit requirements (for emergencies see Section B - 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, MC61-53  
Indianapolis, Indiana 46204-2251

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.

**B.15** Permit Modification, Reopening, Revocation and Reissuance, or Termination [326 IAC 2-7-5(6)(C)] [326 IAC 2-7-8(a)] [326 IAC 2-7-9]

- (a) This permit may be modified, reopened, revoked and reissued, or terminated for cause. The filing of a request by the Permittee for a Part 70 permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any condition of this permit. [326 IAC 2-7-5(6)(C)] The notification by the Permittee does require the certification by the

"responsible official" as defined by 326 IAC 2-7-1(34).

- (b) This permit shall be reopened and revised under any of the circumstances listed in IC 13-15-7-2 or if IDEM, OAQ, determines any of the following:
  - (1) That this permit contains a material mistake.
  - (2) That inaccurate statements were made in establishing the emissions standards or other terms or conditions.
  - (3) That this permit must be revised or revoked to assure compliance with an applicable requirement. [326 IAC 2-7-9(a)(3)]
- (c) Proceedings by IDEM, OAQ, to reopen and revise this permit shall follow the same procedures as apply to initial permit issuance and shall affect only those parts of this permit for which cause to reopen exists. Such reopening and revision shall be made as expeditiously as practicable. [326 IAC 2-7-9(b)]
- (d) The reopening and revision of this permit, under 326 IAC 2-7-9(a), shall not be initiated before notice of such intent is provided to the Permittee by IDEM, OAQ, at least thirty (30) days in advance of the date this permit is to be reopened, except that IDEM, OAQ, may provide a shorter time period in the case of an emergency. [326 IAC 2-7-9(c)]

**B.16 Permit Renewal [326 IAC 2-7-3] [326 IAC 2-7-4] [326 IAC 2-7-8(e)]**

- (a) The application for renewal shall be submitted using the application form or forms prescribed by IDEM, OAQ, and shall include the information specified in 326 IAC 2-7-4. Such information shall be included in the application for each emission unit at this source, except those emission units included on the trivial or insignificant activities list contained in 326 IAC 2-7-1(21) and 326 IAC 2-7-1(40). The renewal application does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

Request for renewal shall be submitted to:

Indiana Department of Environmental Management  
Permits Branch, Office of Air Quality  
100 North Senate Avenue, MC61-53  
Indianapolis, Indiana 46204-2251

- (b) A timely renewal application is one that is:
  - (1) Submitted at least nine (9) months prior to the date of the expiration of this permit; and
  - (2) 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.
- (c) If the Permittee submits a timely and complete application for renewal of this permit, the source's failure to have a permit is not a violation of 326 IAC 2-7 until IDEM, OAQ, takes final action on the renewal application, except that this protection shall cease to apply if, subsequent to the completeness determination, the Permittee fails to submit by the deadline specified in writing by IDEM, OAQ, any additional information identified as being needed to process the application.

**B.17 Permit Amendment or Modification [326 IAC 2-7-11] [326 IAC 2-7-12]**

- (a) Permit amendments and modifications are governed by the requirements of 326 IAC 2-7-11 or 326 IAC 2-7-12 whenever the Permittee seeks to amend or modify this permit.
- (b) Any application requesting an amendment or modification of this permit shall be submitted to:

Indiana Department of Environmental Management  
Permits Branch, Office of Air Quality

100 North Senate Avenue, MC61-53  
Indianapolis, Indiana 46204-2251

Any such application shall be certified by the "responsible official" as defined by 326 IAC 2-7-1(34).

- (c) The Permittee may implement administrative amendment changes addressed in the request for an administrative amendment immediately upon submittal of the request. [326 IAC 2-7-11(c)(3)]

**B.18 Permit Revision Under Economic Incentives and Other Programs [326 IAC 2-7-5(8)][326 IAC 2-7-12(b)(2)]**

- (a) No Part 70 permit revision shall be required under any approved economic incentives, marketable Part 70 permits, emissions trading, and other similar programs or processes for changes that are provided for in a Part 70 permit.
- (b) Notwithstanding 326 IAC 2-7-12(b)(1)(D)(i) and 326 IAC 2-7-12(c)(1), minor Part 70 permit modification procedures may be used for Part 70 modifications involving the use of economic incentives, marketable Part 70 permits, emissions trading, and other similar approaches to the extent that such minor Part 70 permit modification procedures are explicitly provided for in the applicable State Implementation Plan (SIP) or in applicable requirements promulgated or approved by the U.S. EPA.

**B.19 Operational Flexibility [326 IAC 2-7-20] [326 IAC 2-7-10.5]**

- (a) The Permittee may make any change or changes at the source that are described in 326 IAC 2-7-20(b), (c), or (e), without a prior permit revision, if each of the following conditions is met:

- (1) The changes are not modifications under any provision of Title I of the Clean Air Act;
- (2) Any preconstruction approval required by 326 IAC 2-7-10.5 has been obtained;
- (3) The changes do not result in emissions which exceed the limitations provided in this permit (whether expressed herein as a rate of emissions or in terms of total emissions);
- (4) The Permittee notifies the:

Indiana Department of Environmental Management  
Permits Branch, Office of Air Quality  
100 North Senate Avenue, MC61-53  
Indianapolis, Indiana 46204-2251

and

United States Environmental Protection Agency, Region V  
Air and Radiation Division, Regulation Development Branch - Indiana (AR-18J)  
77 West Jackson Boulevard  
Chicago, Illinois 60604-3590

in advance of the change by written notification at least ten (10) days in advance of the proposed change. The Permittee shall attach every such notice to the Permittee's copy of this permit; and

- (5) The Permittee maintains records on-site, on a rolling five (5) year basis, which document, all such changes and emission trades that are subject to 326 IAC 2-7-20(b), (c), or (e). The Permittee shall make such records available, upon reasonable request, for public review.

Such records shall consist of all information required to be submitted to IDEM, OAQ, in the notices specified in 326 IAC 2-7-20(b)(1), (c)(1), and (e)(2).

- (b) The Permittee may make Section 502(b)(10) of the Clean Air Act changes (this term is defined at 326 IAC 2-7-1(36)) without a permit revision, subject to the constraint of 326 IAC 2-7-20(a). For each such Section 502(b)(10) of the Clean Air Act change, the required written notification shall include the following:

- (1) A brief description of the change within the source;
- (2) The date on which the change will occur;
- (3) Any change in emissions; and
- (4) Any permit term or condition that is no longer applicable as a result of the change.

The notification which shall be submitted is not considered an application form, report or compliance certification. Therefore, the notification by the Permittee does not require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

(c) Emission Trades [326 IAC 2-7-20(c)]

The Permittee may trade emissions increases and decreases at the source, where the applicable SIP provides for such emission trades without requiring a permit revision, subject to the constraints of Section (a) of this condition and those in 326 IAC 2-7-20(c).

(d) Alternative Operating Scenarios [326 IAC 2-7-20(d)]

The Permittee may make changes at the source within the range of alternative operating scenarios that are described in the terms and conditions of this permit in accordance with 326 IAC 2-7-5(9). No prior notification of IDEM, OAQ, or U.S. EPA is required.

B.20 Source Modification Requirement [326 IAC 2-7-10.5]

- (a) A modification, construction, or reconstruction is governed by the requirements of 326 IAC 2 and 326 IAC 2-7-10.5.
- (b) Any modification at an existing major source is governed by the requirements of 326 IAC 2-2.

B.21 Inspection and Entry [326 IAC 2-7-6] [IC 13-14-2-2] [IC 13-17-3-2] [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 Part 70 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 any records that must be kept under the conditions of this permit;
- (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 any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit;
- (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 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.

B.22 Transfer of Ownership or Operational Control [326 IAC 2-7-11]

- (a) The Permittee must comply with the requirements of 326 IAC 2-7-11 whenever the Permittee seeks to change the ownership or operational control of the source and no other change in the permit is necessary.
- (b) Any application requesting a change in the ownership or operational control of the source shall contain a

written agreement containing a specific date for transfer of permit responsibility, coverage and liability between the current and new Permittee. The application shall be submitted to:

Indiana Department of Environmental Management  
Permits Branch, Office of Air Quality  
100 North Senate Avenue, MC61-53  
Indianapolis, Indiana 46204-2251

The application which shall be submitted by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

- (c) The Permittee may implement administrative amendment changes addressed in the request for an administrative amendment immediately upon submittal of the request. [326 IAC 2-7-11(c)(3)]

**B.23 Annual Fee Payment [326 IAC 2-7-19] [326 IAC 2-7-5(7)][326 IAC 2-1.1-7]**

- (a) The Permittee shall pay annual fees to IDEM, OAQ, within thirty (30) calendar days of receipt of a billing. Pursuant to 326 IAC 2-7-19(b), if the Permittee does not receive a bill from IDEM, OAQ, the applicable fee is due April 1 of each year.
- (b) Except as provided in 326 IAC 2-7-19(e), failure to pay may result in administrative enforcement action or revocation of this permit.
- (c) The Permittee may call the following telephone numbers: 1-800-451-6027 or 317-233-4230 (ask for OAQ, Billing, Licensing, and Training Section), to determine the appropriate permit fee.

**B.24 Credible Evidence [326 IAC 2-7-5(3)] [326 IAC 2-7-6] [62 FR 8314] [326 IAC 1-1-6]**

For the purpose of submitting compliance certifications or establishing whether or not the Permittee has violated or is in violation of any condition of this permit, nothing in this permit shall preclude the use, including the exclusive use, of any credible evidence or information relevant to whether the Permittee would have been in compliance with the condition of this permit if the appropriate performance or compliance test or procedure had been performed.

**B.25 Term of Conditions [326 IAC 2-1.1-9.5]**

Notwithstanding the permit term of a permit to construct, a permit to operate, or a permit modification, any condition established in a permit issued pursuant to a permitting program approved in the state implementation plan shall remain in effect until:

- (a) the condition is modified in a subsequent permit action pursuant to Title I of the Clean Air Act; or
- (b) the emission unit to which the condition pertains permanently ceases operation.

**SECTION C**

**SOURCE OPERATION CONDITIONS**

Entire Source

**Emission Limitations and Standards [326 IAC 2-7-5(1)]**

**C.1 Particulate Emission Limitations For Processes with Process Weight Rates Less Than One Hundred (100) pounds per hour [326 IAC 6-3-2]**

Pursuant to 326 IAC 6-3-2(e)(2), particulate emissions from any process not exempt under 326 IAC 6-3-1(b) or (c) which has a maximum process weight rate less than 100 pounds per hour and the methods in 326 IAC 6-3-2(b) through (d) do not apply shall not exceed 0.551 pounds per hour.

**C.2 Overall Source Limit [326 IAC 2-2]**

Pursuant to Construction Permit 147-6713-00041, issued February 13, 1997, and A147-11471-00041, issued April 18, 2002, the emissions of sulfur dioxide, asbestos, lead, beryllium, mercury, vinyl chloride, fluorides, hydrogen sulfide, sulfuric acid mist and total reduced sulfur compounds (including hydrogen sulfide) shall not exceed the annual significant levels established in 326 IAC 2-2 (PSD) and 40 CFR 52.21. Therefore the requirements of 326 IAC 2-2 and 40 CFR 52.21 are not applicable.

**C.3 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 forty percent (40%) 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 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.4 Open Burning [326 IAC 4-1] [IC 13-17-9]**

Pursuant to Construction Permit 147-6713-00041, issued February 13, 1997; operation condition 17, and A147-11471-00041, issued April 18, 2002, operation condition 17, the Permittee shall not open burn any material except as provided in 326 IAC 4-1-3, 326 IAC 4-1-4 or 326 IAC 4-1-6.

**C.5 Incineration [326 IAC 4-2] [326 IAC 9-1-2]**

The Permittee shall not operate an incinerator or incinerate any waste or refuse except as provided in 326 IAC 4-2 and 326 IAC 9-1-2.

**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 Fugitive Particulate Matter Emission Limitations [326 IAC 6-5]**

(a) For AK Steel, pursuant to 326 IAC 6-5 (Fugitive Particulate Matter Emission Limitations), fugitive particulate matter emissions shall be controlled according to the plan included in Construction Permit 147-6713-00041, issued February 13, 1997, and amended in Amendment 147-10571-00041, issued March 4, 1999. The plan consists of AK Steel Corporation meeting all of the following criteria:

- (1) All roads associated with routine plant operations and parking lots located on the AK Steel property shall be paved;
- (2) All paved road segments and parking lots shall be cleaned with a vehicular vacuum sweeper once every month to control PM10 emissions to no more than 3 tons per year and PM emissions to no more than 15 tons per year. Additionally, the following requirements shall apply:

(A) If a fugitive dust problem occurs at any time, the Permittee shall employ the sweeper

as soon as practicably possible in the incident areas;

- (B) After each incident, and the initial sweeper cleaning thereof, the Permittee shall sweep all incident areas, a second time, but no longer than 14 days after the incident; and
- (C) The monthly schedule resumes only after 14 consecutive incident - free days have passed.

- (3) Silt surface loading shall not exceed 16.8 pounds of silt per mile.

The cleaning activities of the paved road segments and parking lots may be delayed by one day when:

- (1) 0.1 or more inches of rain has accumulated during the 24-hour period prior to the scheduled cleaning;
- (2) The road segment is closed or abandoned. Abandoned roads will be barricaded to prevent vehicle access;
- (3) It is raining at the time of the scheduled cleaning; or
- (4) Road surface temperature is below 35 degrees Fahrenheit.

Upon request of the Assistant Commissioner, AK Steel Corporation shall sample surface material silt content and surface dust loadings at paved segments specified by IDEM in accordance with field and laboratory procedures set by IDEM within 15 days of the request. The sample results shall be submitted to IDEM within 30 days of the sample date. Supplemental cleaning parameters of the paved roads and/or parking lots found to exceed the controlled silt surface loading of 16.8 pounds of silt per mile shall also be submitted to the IDEM within 30 days of the sample date.

- (b) The plan does not require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

#### 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.

#### C.9 Asbestos Abatement Projects [326 IAC 14-10] [326 IAC 18] [40 CFR 61, Subpart M]

The Permittee shall comply with the applicable requirements of 326 IAC 14-10, 326 IAC 18, and 40 CFR 61.140.

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

##### C.10 Performance Testing [326 IAC 3-6]

- (a) All testing shall be performed according to the provisions of 326 IAC 3-6 (Source Sampling Procedures), except as provided elsewhere in this permit, utilizing any applicable procedures and analysis methods specified in 40 CFR 51, 40 CFR 60, 40 CFR 61, 40 CFR 63, 40 CFR 75, or other procedures approved by IDEM, OAQ.

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

Indiana Department of Environmental Management  
Compliance Data Section, Office of Air Quality  
100 North Senate Avenue, MC61-53  
Indianapolis, Indiana 46204-2251

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, not later than 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 not later than five (5) days prior to the end of the initial forty-five (45) day period.

### **Compliance Requirements [326 IAC 2-1.1-11]**

#### **C.11 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.12 Compliance Monitoring [326 IAC 2-7-5(3)] [326 IAC 2-7-6(1)]**

Unless otherwise specified in this permit, all monitoring and record keeping requirements not already legally required shall be implemented within ninety (90) days of permit issuance. If required by Section D, the Permittee shall be responsible for installing any necessary equipment and initiating any required monitoring related to that equipment. If due to circumstances beyond its control, that equipment cannot be installed and operated within ninety (90) days, the Permittee may extend the compliance schedule related to the equipment for an additional ninety (90) days provided the Permittee notifies:

Indiana Department of Environmental Management  
Compliance Branch, Office of Air Quality  
100 North Senate Avenue, MC61-53  
Indianapolis, Indiana 46204-2251

in writing, prior to the end of the initial ninety (90) day compliance schedule, with full justification of the reasons for the inability to meet this date.

The notification which shall be submitted by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

Unless otherwise specified in the approval for the new emission unit(s), compliance monitoring for new emission units or emission units added through a source modification shall be implemented when operation begins.

#### **C.13 Maintenance of Continuous Emission Monitoring Equipment [326 IAC 2-7-5(3)(A)][326 IAC 3-5]**

- (a) The Permittee shall calibrate, maintain, and operate all necessary continuous emission monitoring systems (CEMS) and related equipment.
- (b) All continuous emission monitoring systems shall meet all applicable performance specifications of 40 CFR 60 or any other performance specification, and are subject to monitor system certification requirements pursuant to 326 IAC 3-5-3.
- (c) In the event that a breakdown of a continuous emission monitoring system occurs, a record shall be made of the times and reasons of the breakdown and efforts made to correct the problem.
- (d) Whenever a continuous emission monitor other than an opacity monitor is malfunctioning or is down for maintenance or repairs, the following shall be used as an alternative to continuous data collection:

Supplemental or intermittent monitoring of the parameter shall be implemented as specified in Section D of this permit until such time as the primary continuous emission monitoring system is back in operation, if the CEMS is not used to monitor NO<sub>x</sub> or SO<sub>2</sub> emissions pursuant to 40 CFR 75 or 326 IAC 10-4.

- (e) Nothing in this permit shall excuse the Permittee from complying with the requirements to operate a continuous emission monitoring system pursuant to 326 IAC 3-5 and Construction Permit 147-6713-00041, issued February 13, 1997.

**C.14 Monitoring Methods [326 IAC 3] [40 CFR 60] [40 CFR 63]**

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

**C.15 Instrument Specifications [326 IAC 2-1.1-11] [326 IAC 2-7-5(3)] [326 IAC 2-7-6(1)]**

- (a) When required by any condition of this permit, an analog instrument used to measure a parameter related to the operation of an air pollution control device shall have a scale such that the expected maximum reading for the normal range shall be no less than twenty percent (20%) of full scale.
- (b) The Permittee may request that the IDEM, OAQ approve the use of an instrument that does not meet the above specifications provided the Permittee can demonstrate that an alternative instrument specification will adequately ensure compliance with permit conditions requiring the measurement of the parameters.

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

**C.16 Emergency Reduction Plans [326 IAC 1-5-2] [326 IAC 1-5-3]**

Pursuant to 326 IAC 1-5-2 (Emergency Reduction Plans; Submission):

- (a) The Permittee shall prepare written emergency reduction plans (ERPs) consistent with safe operating procedures.
- (b) These ERPs shall be submitted for approval to:  
  
Indiana Department of Environmental Management  
Compliance Branch, Office of Air Quality  
100 North Senate Avenue, MC61-53  
Indianapolis, Indiana 46204-2251  
  
within ninety (90) days after the date of issuance of this permit.  
  
The ERP does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).
- (c) If the ERP is disapproved by IDEM, OAQ, the Permittee shall have an additional thirty (30) days to resolve the differences and submit an approvable ERP.
- (d) These ERPs shall state those actions that will be taken, when each episode level is declared, to reduce or eliminate emissions of the appropriate air pollutants.
- (e) Said ERPs shall also identify the sources of air pollutants, the approximate amount of reduction of the pollutants, and a brief description of the manner in which the reduction will be achieved.
- (f) Upon direct notification by IDEM, OAQ, that a specific air pollution episode level is in effect, the Permittee shall immediately put into effect the actions stipulated in the approved ERP for the appropriate episode level. [326 IAC 1-5-3]

**C.17 Risk Management Plan [326 IAC 2-7-5(12)] [40 CFR 68.215]**

If a regulated substance, as defined in 40 CFR 68, is present at a source in more than a threshold quantity, the source must comply with the applicable requirements of 40 CFR 68.

**C.18 Response to Excursions or Exceedances 326 IAC 2-7-5] [326 IAC 2-7-6]**

- (a) Upon detecting an excursion or exceedance, the Permittee shall restore operation of the emissions unit (including any control device and associated capture system) to its normal or usual manner of operation, as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions.
- (b) The response shall include minimizing the period of any startup, shutdown or malfunction and taking any necessary corrective actions to restore normal operation and prevent the likely recurrence of the

cause of an excursion or exceedance (other than those caused by excused startup or shutdown conditions). Corrective actions may include, but are not limited to, the following:

- (1) initial inspection and evaluation;
  - (2) recording that operations returned to normal without operator action (such as through response by a computerized distribution control system); or
  - (3) any necessary follow-up actions to return operation to within the indicator range, designated condition, or below the applicable emission limitation or standard, as applicable.
- (c) A determination of whether the Permittee has used acceptable procedures in response to an excursion or exceedance will be based on information available, which may include, but is not limited to, the following:
- (1) monitoring results;
  - (2) review of operation and maintenance procedures and records;
  - (3) inspection of the control device, associated capture system, and the process.
- (d) Failure to take reasonable response steps shall be considered a deviation from the permit.
- (e) The Permittee shall maintain the following records:
- (1) monitoring data;
  - (2) monitor performance data, if applicable; and
  - (3) corrective actions taken.

**C.19 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 noncompliant stack tests.

The response action documents submitted pursuant to this condition do 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.20 Emission Statement [326 IAC 2-7-5(3)(C)(iii)] [326 IAC 2-7-5(7)] [326 IAC 2-7-19(c)] [326 IAC 2-6]**

- (a) Pursuant to 326 IAC 2-6-3(a)(1), the Permittee shall submit by July 1 of each year an emission statement covering the previous calendar year. The emission statement shall contain, at a minimum, the information specified in 326 IAC 2-6-4(c) and shall meet the following requirements:
  - (1) Indicate estimated actual emissions of all pollutants listed in 326 IAC 2-6-4(a);
  - (2) Indicate estimated actual emissions of regulated pollutants as defined by 326 IAC 2-7-1(32) ("Regulated pollutant which is used only for purposes of Section 19 of this rule") from the source, for purposes of fee assessment.

The statement must be submitted to:

Indiana Department of Environmental Management  
Technical Support and Modeling Section, Office of Air Quality  
100 North Senate Avenue, MC61-50  
Indianapolis, Indiana 46204-2251

The emission statement does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

- (b) The emission statement 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.

C. 21 General Record Keeping Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-6] [326 IAC 2-2] [326 IAC 2-3]

- (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 within ninety (90) days of permit issuance.
- (c) If there is a "project" (as defined in 326 IAC 2-2-1 (qq) and/or 326 IAC 2-3-1(II) at an existing emissions unit, which is not part of a "major modification" (as defined in 326 IAC 2-2-1 (ee) and/or 326 IAC 2-3-1 (z) and the Permittee elects to utilize the "projected actual emissions" (as defined in 326 IAC 2-2-1 (rr) and/or 326 IAC 2-3-1 (mm), the Permittee shall comply with following:
- (1) Before beginning actual construction of the "project" (as defined in 326 IAC 2-2-1 (qq) and/or 326 IAC 2-3-1 (II) at an existing emissions unit, document and maintain the following records:
- (A) A description of the project.
- (B) Identification of any emissions 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/or 326 IAC 2-3-1(mm)(2)(A)(3), 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 emissions unit identified in (1)(B) above; and
- (3) Calculate and maintain a record of the annual emissions, in tons per year on a calendar 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 of or the potential to emit that regulated NSR pollutant at the emissions unit.

C. 22 General Reporting Requirements [326 IAC 2-7-5(3)(C)] [326 IAC 2-1.1-11] [326 IAC 2-2] [326 IAC 2-3]

- (a) The Permittee 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 and reports required by conditions in Section D of this permit shall be submitted to:

Indiana Department of Environmental Management  
Compliance Data Section, Office of Air Quality  
100 North Senate Avenue, MC61-53  
Indianapolis, Indiana 46204-2251

- (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 required in Section D of this permit shall be submitted within thirty (30) days of the end of the reporting period. All reports do require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

- (e) 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) and/or 326 IAC 2-3-1 (II) at an existing emissions 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) and/or 326 IAC 2-3-1 (qq) for that regulated NSR 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).

- (f) The report for project at an existing emissions 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) and (3) 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) and/or 2-3-2(c)(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, MC61-53  
Indianapolis, Indiana 46204-2251

- (g) 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 a request for inspection by IDEM, OAQ. The general public may request this information from the IDEM, OAQ under 326 IAC 17.1.

## Stratospheric Ozone Protection

### C.23 Compliance with 40 CFR 82 and 326 IAC 22-1

Pursuant to 40 CFR 82 (Protection of Stratospheric Ozone), Subpart F, except as provided for motor vehicle air conditioners in Subpart B, the Permittee shall comply with the standards for recycling and emissions reduction:

- (a) Persons opening appliances for maintenance, service, repair, or disposal must comply with the required practices pursuant to 40 CFR 82.156.
- (b) Equipment used during the maintenance, service, repair, or disposal of appliances must comply with the standards for recycling and recovery equipment pursuant to 40 CFR 82.158.
- (c) Persons performing maintenance, service, repair, or disposal of appliances must be certified by an approved technician certification program pursuant to 40 CFR 82.161.

## SECTION D.1

## FACILITY OPERATION CONDITIONS

### Facility Description [326 IAC 2-7-5(15)]:

- (a) A Continuous Anneal and Pickling Line (APL) with a maximum normal capacity of 130 tons per hour consisting of:
- (1) one (1) flattener,
  - (2) one (1) shear,
  - (3) one (1) laser welder,
  - (4) one (1) leveller shear,
  - (5) one (1) alkaline cleaner section exhausting through a wet scrubber system to Stack S06,
  - (6) one (1) 110.0 MMBtu/hr natural gas-fired annealing furnace section equipped with low-NOx burners with integral exhaust gas recirculation (or equivalent) exhausting to Stack S07A,
  - (7) one (1) 55.0 MMBtu/hr natural gas-fired annealing furnace section equipped with low-NOx burners with integral exhaust gas recirculation (or equivalent) exhausting to Stack S07B,
  - (8) one (1) air quench station consisting of 10 sections exhausting through a baghouse to Stack S08,
  - (9) one (1) water quench section,
  - (10) one (1) cooling tower with 1650 gallons per minute recirculating capacity,
  - (11) one (1) enclosed shot blasting chamber exhausting through a baghouse to Stack S05,
  - (12) electrolytic pickle and rinse tanks exhausting through a wet scrubber system to Stack S09A,
  - (13) mixed acids pickle and rinse tanks exhausting through a multi-stage oxidation/reduction and acid neutralization scrubbing system to Stack S09B,
  - (14) one (1) steam heated strip dryer,
  - (15) skin pass temper mill and roll cleaning dust collection system exhausting through individual baghouses to Stack S09C, and
  - (16) one (1) tension/leveller and side trimmer.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

### Emission Limitations and Standards [326 IAC 2-7-5(1)]

#### D.1.1 Particulate Matter (PM/PM<sub>10</sub>) Best Available Control Technology (BACT) [326 IAC 2-2]

Pursuant to Construction Permit 147-6713-00041, issued February 13, 1997, operation condition 21, and A147-11471-00041, issued April 18, 2002, operation condition 21, and 326 IAC 2-2-3 (PSD BACT), the processes of the Continuous Annealing and Pickling Line shall be limited as follows:

- (a) The alkaline cleaner shall be enclosed and maintained under negative pressure. The filterable particulate matter (PM/PM<sub>10</sub>) generated from this process shall be controlled by a wet scrubber system. Particulate matter (where PM<sub>10</sub> includes both filterable and condensible portions) shall not exceed 0.0044 grains per dscf and 0.377 pounds per hour.
- (b) Filterable particulate matter (PM/PM<sub>10</sub>) generated from the air quench station shall be controlled by a baghouse (S08). Particulate matter (where PM<sub>10</sub> includes both filterable and condensible portions) shall not exceed 0.005 grains per dscf and 1.41 pounds per hour.
- (c) The shot blaster chamber shall be enclosed and maintained under negative pressure. The particulate matter generated from the operation shall be exhausted to a baghouse (S05) with an outlet grain loading not to exceed 0.000009 grains per dscf. The particulate matter emissions shall not exceed 0.006 pounds per hour.
- (d) Filterable particulate emissions (PM/PM<sub>10</sub>) generated from the electrolytic pickling section shall be controlled by a wet scrubber system (S09A). The outlet grain loading from the scrubber for filterable particulate matter shall not exceed 0.0022 grains per dscf and 0.349 pounds per hour. Particulate matter (where PM<sub>10</sub> includes both filterable and condensible portions) shall not exceed 0.0093 grains per dscf and 0.77 pounds per hour.
- (e) The mixed acid pickle and rinse tanks shall be enclosed and maintained under negative pressure. The particulate matter generated from this process shall be controlled by a wet scrubber system (S09B). The outlet grain loading for filterable particulate matter shall not exceed 0.003 grains per dscf and 0.153 pounds per hour. Total particulate matter (including condensible PM<sub>10</sub>) shall not exceed 0.0060 grains per dscf and 0.28 pounds per hour.

- (f) The strip dryer shall only use steam heat.
- (g) Filterable particulate matter (PM/PM10) generated from the skin pass temper mill and roll cleaning dust collection system shall be controlled by individual baghouses to a common Stack (S09C). Particulate matter (where PM10 includes both filterable and condensible portions) shall not exceed 0.0066 grains per dscf and 0.459 pounds per hour.

For parts (b), (d), (e) and (g), the OAQ may revise this permit to adjust the total PM/PM10 limitation based upon the results of IDEM approved stack testing. The Department will provide an opportunity for public notice and comment prior to finalizing any permit revision. IC 13-15-7-3 (Revocation or Modification of a Permit: Appeal to Board) shall apply to this permit condition.

**D.1.2 Nitrogen Oxides (NOx) Best Available Control Technology (BACT) [326 IAC 2-2]**

Pursuant to Construction Permit 147-6713-00041, issued February 13, 1997, operation condition 21, and A147-11471-00041, issued April 18, 2002, and 326 IAC 2-2-3 (PSD BACT), the processes of the Continuous Annealing and Pickling Line shall be limited as follows:

- (a) The 110.0 MMBtu per hour annealing furnace section No.1 and the 55.0 MMBtu per hour annealing furnace section No.2 shall each use only natural gas and NOx emissions shall be controlled by ultra low-NOx burners with integral exhaust gas recirculation (or its equivalent). Pursuant to Significant Source Modification 147-19502-00041, issued August 5, 2005, nitrogen oxide emissions from the furnaces shall not exceed the following limits:

Furnace	Stainless Steel Type	lb/MMBtu	lb/hr
110 MMBtu/hr (Section No.1)	400 Cold Roll	0.08	8.0
	300 Cold Roll	0.087	9.6
	300 Hot Roll	0.04	4.4
55 MMBtu/hr (Section No.2)	400 Cold Roll	0.14	7.7
	300 Cold Roll	0.11	6.1
	300 Hot Roll	0.04	2.2

- (b) The Permittee shall employ an operational practice called "smoke and anneal" for certain grades of stainless steel in the 110.0 MMBtu per hour annealing furnace section No.1 and the 55.0 MMBtu per hour annealing furnace section No.2. This operational practice shall be limited to no more than 48 days or 1152 hours per 12 consecutive month period. The outlet nitrogen oxide loading shall not exceed 0.080 pounds per MMBtu during this operation. The combined nitrogen oxide emissions from the two sections of the annealing furnace shall not exceed 13.2 pounds per hour and 7.60 tons per year for this operation.

**D.1.3 Nitrogen Oxides (NOx) PSD Best Available Control Technology (BACT) [326 IAC 2-2]**

- (a) The mixed acid pickle, and rinse tanks for the APL shall be enclosed and maintained under negative pressure.
- (b) Pursuant to 326 IAC 2-2-3 (PSD BACT), the APL and the CPL in SECTION D.2 which are both controlled by the wet scrubber system (S09B), shall be limited to a NOx concentration of 175 parts per million by volume dry (ppmvd) measured at the outlet of the scrubber.
- (c) The APL NOx emissions combined with the NOx emissions of the CPL in SECTION D.2, shall be limited to 9.66 pounds per hour after control.

**Compliance Determination Requirements**

**D.1.4 Testing Requirements [326 IAC 2-7-6(1),(6)] [326 IAC 2-1.1-11]**

- (a) Within five years after the most recent stack test or 36 months after issuance of this Part 70 permit, whichever is later, in order to demonstrate compliance with Conditions D.1.1, the Permittee shall perform PM and PM-10 testing for S06, S08, S09A, S09B, and S09C, utilizing methods as approved by the Commissioner. This test shall be repeated at least once every five (5) years from the date of this

valid compliance demonstration. PM-10 includes filterable and condensible components. Testing shall be conducted in accordance with Section C- Performance Testing.

- (b) Within five years after the most recent stack test, in order to demonstrate compliance with Conditions D.1.2 and D.1.3, the Permittee shall perform NOx testing for S07A, S07B, S09A, and S09B, utilizing methods as approved by the Commissioner. Testing of the outlet NOx concentration and emissions from scrubber, identified as S09B, controlling the APL and CPL in SECTION D.2, and scrubbers S02 and S09A was performed on January 30, 2006. This test shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. Testing shall be conducted in accordance with Section C- Performance Testing.

#### D.1.5 Control Equipment

- (a) Baghouses (S05, S08, S09C), shall be operated at all times and controlling PM when their respective emission units (shotblasting chamber, air quench station, electrolytic pickle, skin pass temper, and roll cleaning dust collection system) are in operation.
- (b) Scrubbers (S06, S09A, S09B), shall be operated at all times when their respective emission units (alkaline cleaner, electrolytic pickle and rinse tanks, and mixed acids pickle and rinse tanks are in operation.

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

#### D.1.6 Visible Emissions Notations

- (a) Visible emission notations of stack exhausts (S05, S06, S08, S09A, S09B, S09C) shall be performed. These notations shall be taken once per day during normal daylight operations when exhausting to the atmosphere. A trained employee shall record whether emissions are normal or abnormal.
- (b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.
- (c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.
- (d) A trained employee, including trained personnel under contract with the source, is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.
- (e) If abnormal emissions are observed, the Permittee shall take reasonable response steps in accordance with Section C - Response to Excursions or Exceedances. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances, shall be considered a deviation from this permit.

#### D.1.7 Parametric Monitoring for Baghouses

- (a) The Permittee shall record the pressure drop across the baghouses (S05, S08, S09C) used in conjunction with the APL at least once per day when the process is in operation. When for any one reading, the pressure drop across the baghouse is outside the normal range of 0.3 and 8.0 inches of water or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C- Response to Excursions or Exceedances. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances, shall be considered a deviation from this permit.
- (b) The instrument used for determining the pressure shall comply with Section C - Instrument Specifications, of this permit, shall be subject to approval by IDEM, OAQ, and shall be calibrated at least once every six (6) months.

#### D.1.8 Broken or Failed Bag Detection

In the event that bag failure is observed in a multi-compartment baghouse, if operations will continue for ten (10) days or more after the failure is observed before the failed units will be repaired or replaced, the Permittee shall

promptly notify the IDEM, OAQ of the expected date the failed units will be repaired or replaced. The notification shall also include the status of the applicable compliance monitoring parameters with respect to normal, and the results of any response actions taken up to the time of notification.

#### D.1.9 Parametric Monitoring for Scrubbers

- (a) The Permittee shall record the pH of the scrubbing liquid (if applicable), pressure drop and scrubbing liquid flow rate of the scrubbers (S06, S09A, S09B) used in conjunction with the APL at least once per day when the process is in operation. When for any one reading each parametric range or the minimum operating parameter for the scrubbers in below table is outside its normal range, or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C- Response to Excursions or Exceedances. A reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances, shall be considered a deviation from this permit.

Scrubber ID	Pressure Drop Range across the Scrubber (inches)	Minimum Flow Rate of Scrubbing Liquor (gallons/minute)	pH of Scrubbing Liquor
APL/CPL Mixed Scrubber (S09B)	0.25 - 5.0	250	8.0 - 12.5
Electrolytic Pickle & Rinse Tanks Scrubber (S09A)	0.5 - 6.0	250	5.5 - 9.5
Alkaline Cleaner Scrubber (S06)	1.0 - 8.0	300	-

- (b) The instruments used for determining the pH of the scrubbing liquid (if applicable), pressure drop, and scrubbing liquid flow rate at the inlet of the control device shall be subject to approval by IDEM, OAQ, and shall be calibrated at least once every six (6) months.

#### D.1.10 Scrubber Failure

In the event that failure of a scrubber has been observed, if operations will continue for ten (10) days or more after the failure is observed before the failed system will be repaired or replaced, the Permittee shall promptly notify the IDEM, OAQ of the expected date the failed system will be repaired or replaced. The notification shall also include the status of the applicable compliance monitoring parameters with respect to normal, and the results of any response actions taken up to the time of notification.

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

#### D.1.11 Record Keeping Requirements

- (a) To document compliance with Condition D.1.2(b), the Permittee shall maintain hourly records of the "smoke and aneal" operational practice.
- (b) To document compliance with Condition D.1.6, the Permittee shall maintain records of the daily visible emission notations for stacks S05, S06, S08, S09A, S09B, and S09C.
- (c) To document compliance with Condition D.1.7, the Permittee shall maintain once per day records of the pressure drop across the baghouses (S05, S08, S09C).
- (d) To document compliance with Condition D.1.9, the Permittee shall maintain once per day records of the pressure drop across the scrubbers (S06, S09A, S09B).
- (e) To document compliance with Condition D.1.9, the Permittee shall maintain once per day records of the pH, and flow rate of the scrubbing liquor from scrubbers (S06, S09A, S09B).
- (f) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit. Records necessary to demonstrate compliance shall be available within 30 days of the end of each compliance period.

## SECTION D.2

## FACILITY OPERATION CONDITIONS

### Facility Description [326 IAC 2-7-5(15)]:

- (b) Continuous Pickling Line (CPL) with a maximum capacity of 476 tons per hour consisting of:
  - (1) one (1) strip leveller and one (1) mechanical scale breaker exhausting through a baghouse to Stack S01,
  - (2) one (1) laser welder and one (1) tension leveller,
  - (3) three (3) HCl acid pickle and rinse tanks;
    - (A) when processing carbon steel only: three (3) HCl acid pickle and rinse tanks exhausting through a wet scrubber system to Stack S02;
    - (B) when processing stainless steels only: three (3) HCl acid pickle tanks exhausting through a wet scrubber system to Stack S02; mixed acid and rinse tanks exhausting through a wet scrubber system to Stack S02, through the electrolytic pickle scrubber system on the APL to Stack S09A, and exhausting through the multi-stage oxidation/reduction and acid neutralization scrubbing system on the APL at Stack S09B.
  - (4) one (1) steam heated pickle dryer,
  - (5) one (1) shear/trimmer, and
  - (6) one (1) CPL electrostatic oiler.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

### Emission Limitations and Standards [326 IAC 2-7-5(1)]

#### D.2.1 Particulate Matter (PM/PM10) Best Available Control Technology (BACT) [326 IAC 2-2]

Pursuant to 326 IAC 2-2-3 (Best Available Control Technology), Construction Permit 147-6713-00041, issued February 13, 1997, operation condition 22, and A147-11471-00041, issued April 18, 2002, and 326 IAC 2-2 (PSD BACT), the processes of the continuous pickling line (CPL) shall be limited as follows:

- (a) Filterable particulate matter (PM/PM10) generated from the strip leveller and mechanical scale breaker shall be controlled by a baghouse. The outlet grain loading of the baghouse for filterable particulate matter shall not exceed 0.0044 grains per dscf and 1.52 pounds per hour. Particulate matter (where PM10 includes both filterable and condensable portions) shall not exceed 0.0076 grains per dscf and 3.69 pounds per hour.
- (b) The HCl pickling baths and rinse tanks shall be enclosed and maintained under negative pressure. The filterable particulate matter (PM/PM10 HCl acid mist) generated from this process shall be controlled by a wet scrubber system. The outlet grain loading from the scrubber for filterable particulate matter shall not exceed 0.0020 grains per dscf and 0.206 pounds per hour. Particulate matter (where PM10 includes both filterable and condensable portions) shall not exceed 0.0091 grains per dscf and 0.61 pounds per hour.
- (c) The pickling line dryer shall only use steam heat.
- (d) The rust Preventive oils shall be applied to the metal strips electrostatically.

For parts (a) and (b), the OAQ may revise this permit to adjust the total PM/PM10 limitation based upon the results of IDEM approved stack testing. The Department will provide an opportunity for public notice and comment prior to finalizing any permit revision. IC 13-15-7-3 (Revocation or Modification of a Permit: Appeal to Board) shall apply to this permit condition.

#### D.2.2 Nitrogen Oxides (NOx) Best Available Control Technology (BACT) [326 IAC 2-2]

- (a) The mixed acid pickle, and rinse tanks for the CPL shall be enclosed and maintained under negative pressure.

- (b) Pursuant to 326 IAC 2-2-3 (PSD BACT), the CPL and the APL in SECTION D.1 which are both controlled by the wet scrubber system (S09B) shall be limited to a NO<sub>x</sub> concentration of 175 ppmvd measured at the outlet of the scrubber.
- (c) The CPL NO<sub>x</sub> emissions combined with the NO<sub>x</sub> emissions of the APL in SECTION D.1, shall be limited to 9.66 pounds per hour after control.

#### D.2.3 Hazardous Air Pollutants

Pursuant to Construction Permit 147-6713-00041, issued February 13, 1997, operation condition 19, and Amendment 147-11471-00041, issued April 18, 2002, the emissions of hazardous air pollutants from the entire source shall be less than 10 tons per 365 day period for any individual HAP and 25 tons per 365 day period of any combination of HAPs.

### Compliance Determination Requirements

#### D.2.4 Testing Requirements [326 IAC 2-7-6(1),(6)] [326 IAC 2-1.1-11]

- (a) Within five years after the most recent stack test or 36 months after issuance of this Part 70 permit, whichever is later, in order to demonstrate compliance with Condition D.2.1, the Permittee shall perform PM and PM-10 testing for S01 and S02 utilizing methods as approved by the Commissioner. This test shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. PM-10 includes filterable and condensible components. Testing shall be conducted in accordance with Section C- Performance Testing.
- (b) Within five years after the most recent stack test, in order to demonstrate compliance with Condition D.2.2, the Permittee shall perform NO<sub>x</sub> testing for S02, S09A, and S09B, utilizing methods as approved by the Commissioner. Testing of the outlet NO<sub>x</sub> concentration and emissions from the scrubber, identified as S09B, controlling the CPL and APL in SECTION D.1, and scrubbers S02 and S09A was performed on January 30, 2006. This test shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. Testing shall be conducted in accordance with Section C- Performance Testing.

#### D.2.5 Particulate Matter (PM) Control

- (a) Baghouse (S01) shall be operated at all times and controlling PM when the strip leveler and mechanical scale breaker are in operation.
- (b) Scrubber S02 shall be operated at all times and controlling PM when the three (3) HCl acid pickle and rinse tanks are in operation.

#### D.2.6 Visible Emissions Notations

- (a) Visible emission notations of stacks S01 and S02 shall be performed. These notations shall be taken once per day during normal daylight operations when exhausting to the atmosphere. A trained employee shall record whether emissions are normal or abnormal.
- (b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.
- (c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.
- (d) A trained employee, including trained personnel under contract with the source, is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.
- (e) If abnormal emissions are observed, the Permittee shall take reasonable response steps in accordance with Section C - Response to Excursions or Exceedances. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances, shall be considered a deviation from this permit.

#### D.2.7 Parametric Monitoring for Baghouse

- (a) The Permittee shall record the pressure drop across the baghouse (S01) used in conjunction with the CPL at least once per day when the process is in operation. When for any one reading, the pressure drop across the baghouse is outside the normal range of 1.5 and 5.0 inches of water or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C- Response to Excursions or Exceedances. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances, shall be considered a deviation from this permit.
- (b) The instrument used for determining the pressure shall comply with Section C - Instrument Specifications, of this permit, shall be subject to approval by IDEM, OAQ, and shall be calibrated at least once every six (6) months.

#### D.2.8 Broken or Failed Bag Detection

In the event that bag failure is observed in a multi-compartment baghouse, if operations will continue for ten (10) days or more after the failure is observed before the failed units will be repaired or replaced, the Permittee shall promptly notify the IDEM, OAQ of the expected date the failed units will be repaired or replaced. The notification shall also include the status of the applicable compliance monitoring parameters with respect to normal, and the results of any response actions taken up to the time of notification.

#### D.2.9 Parametric Monitoring for Scrubber

- (a) The Permittee shall record the pH of the scrubbing liquid, pressure drop and scrubbing liquid flow rate of scrubbers S02, S09A, and S09B at least once per day when the process is in operation. When for any one reading each parametric range or the minimum operating parameter for the scrubbers in below table is outside its normal range, or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C- Response to Excursions or Exceedances. A reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances, shall be considered a deviation from this permit.

Scrubber ID	Pressure Drop Range across the Scrubber (inches)	Minimum Flow Rate of Scrubbing Liquor (gallons/minute)	pH of Scrubbing Liquor
APL/CPL Mixed Scrubber (S09B)	0.25 - 5.0	250	8.0 - 12.5
Electrolytic Pickle & Rinse Tanks Scrubber (S09A)	0.5 - 6.0	250	5.5 - 9.5
HCL Scrubber (S02)	0.5 - 5.5	550	-

- (b) The instruments used for determining the pH of the scrubbing liquid, pressure drop, and scrubbing liquid flow rate at the inlet of the control device shall be subject to approval by IDEM, OAQ, and shall be calibrated at least once every six (6) months.

#### D.2.10 Scrubber Failure

In the event that failure of a scrubber (S02) has been observed, if operations will continue for ten (10) days or more after the failure is observed before the failed system will be repaired or replaced, the Permittee shall promptly notify the IDEM, OAQ of the expected date the failed system will be repaired or replaced. The notification shall also include the status of the applicable compliance monitoring parameters with respect to normal, and the results of any response actions taken up to the time of notification.

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

### **D.2.11 Record Keeping Requirements**

- (a) To document compliance with Condition D.2.6, the Permittee shall maintain records of the daily visible emission notations for stacks S01 and S02.
- (b) To document compliance with Condition D.2.7, the Permittee shall maintain once per day records of the pressure drop across the baghouse S01.
- (c) To document compliance with Condition D.2.9, the Permittee shall maintain once per day records of the pressure drop across the scrubbers S02, S09A, and S09B.
- (d) To document compliance with Condition D.2.9, the Permittee shall maintain once per day records of the pH, and flow rate of the scrubbing liquor from scrubbers S02, S09A, and S09B.
- (e) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit. Records necessary to demonstrate compliance shall be available within 30 days of the end of each compliance period.

### SECTION D.3

### FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-7-5(15)]:

- (c) A Continuous Cold Mill (CCM) with a maximum normal capacity of 660 tons per hour consisting of:
  - (1) one (1) strip leveller and one (1) shear,
  - (2) one (1) laser welder,
  - (3) five (5) cold reduction mills exhausting through one (1) mist elimination system to S11; and
  - (4) one (1) cold mill rotary shear and tension reels.
- (d) A Temper Mill with a maximum capacity of 300 tons per hour exhausting to one (1) oil mist elimination system to Stack S16.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

#### Emission Limitations and Standards [326 IAC 2-7-5(1)]

##### D.3.1 Particulate Matter (PM/PM10) Best Available Control Technology (BACT) [326 IAC 2-2]

- (a) Pursuant to 326 IAC 2-2-3 (Best Available Control Technology), Construction Permit 147-6713-00041, issued February 13, 1997, operation condition 23, and A147-11471-00041, issued April 18, 2002, and 326 IAC 2-2 (PSD BACT), the five-strand cold reduction mill shall be enclosed and maintained under negative pressure. The filterable particulate matter (PM/PM10) generated from this process shall be controlled by a mist elimination system. Particulate matter (where PM10 includes both filterable and condensable portions) shall not exceed 0.0087 grains per dscf and 16.1 pounds per hour.
- (b) Pursuant to 326 IAC 2-2-3 (Best Available Control Technology), Construction Permit 147-6713-00041, issued February 13, 1997, operation condition 25, and A147-11471-00047, issued April 18, 2002, and 326 IAC 2-2 (PSD BACT), the filterable particulate matter (PM/PM10) generated from the temper mill shall be controlled by a mist eliminator. Particulate matter (where PM10 includes both filterable and condensable portions) shall not exceed 0.010 grains per dscf and 5.71 pounds per hour.

For parts (a) and (b), the OAQ may revise this permit to adjust the total PM/PM10 limitation based upon the results of IDEM approved stack testing. The Department will provide an opportunity for public notice and comment prior to finalizing any permit revision. IC 13-15-7-3 (Revocation or Modification of a Permit: Appeal to Board) shall apply to this permit condition.

##### D.3.2 Opacity Best Available Control Technology [326 IAC 2-2]

Pursuant to 326 IAC 2-2-3 (Best Available Control Technology) and Construction Permit 147-6713-00041, issued February 13, 1997, operation condition 14, and 326 IAC 2-2 (PSD BACT), visible emissions from stacks S11 and S16 shall not exceed an average of five (5) percent opacity in 24 consecutive readings.

#### Compliance Determination Requirements

##### D.3.3 Testing Requirements [326 IAC 2-7-6(1),(6)] [326 IAC 2-1.1-11]

Within five years after the most recent stack test or 36 months after issuance of this Part 70 permit, whichever is later, in order to demonstrate compliance with Condition D.3.1, the Permittee shall perform PM and PM-10 testing for S11 and S16 utilizing methods as approved by the Commissioner. This test shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. PM-10 includes filterable and condensable components. Testing shall be conducted in accordance with Section C- Performance Testing.

##### D.3.4 Particulate Matter (PM) Control

Each mist elimination system (S11, S16) shall be in operation at all times when the temper mill and cold reduction mills are in operation.

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

### **D.3.5 Visible Emissions Notations**

- (a) Visible emission notations of stack exhausts S11 and S16 shall be performed once per day during normal daylight operations when exhausting to the atmosphere. A trained employee shall record whether emissions are normal or abnormal.
- (b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.
- (c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.
- (d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.
- (e) If abnormal emissions are observed, the Permittee shall take reasonable response steps in accordance with Section C- Response to Excursions or Exceedances. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances, shall be considered a deviation from this permit.

### **D.3.6 Parametric Monitoring**

- (a) The Permittee shall record the pressure drop of the mist elimination systems (S11, S16) used in conjunction with the CCM at least once per day when in operation. When for any one reading, the pressure drop across the systems are outside their normal range, or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C - Response to Excursions or Exceedances. A reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances, shall be considered a deviation from this permit.
- (b) The instruments used for determining the pressure drop shall be subject to approval by IDEM, OAQ, and shall be calibrated at least once every six (6) months.

### **D.3.7 Mist Eliminator Failure**

In the event that a mist elimination system's failure has been observed, if operations will continue for ten (10) days or more after the failure is observed before the failed system will be repaired or replaced, the Permittee shall promptly notify the IDEM, OAQ of the expected date the failed system will be repaired or replaced. The notification shall also include the status of the applicable compliance monitoring parameters with respect to normal, and the results of any response actions taken up to the time of notification.

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

### **D.3.8 Record Keeping Requirements**

- (a) To document compliance with Condition D.3.5, the Permittee shall maintain records of the daily visible emission notations for stacks S11 and S16.
- (b) To show compliance with condition D.3.6, the Permittee shall maintain records of the pressure drop across each mist eliminators (S11, S16).
- (c) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit. Records necessary to demonstrate compliance shall be available within 30 days of the end of each compliance period.

## SECTION D.4

## FACILITY OPERATION CONDITIONS

### Facility Description [326 IAC 2-7-5(15)]:

- (e) A Continuous Galvanizing Line (CGL) with a maximum normal capacity of 183.6 tons per hour consisting of:
- (1) one (1) flattener,
  - (2) one (1) mash seam welder,
  - (3) alkaline cleaning system exhausting through a wet scrubber system to Stack S17,
  - (4) one (1) 4.1 MMBtu/hr natural gas-fired cleaning section dryer,
  - (5) one (1) 205.7 MMBtu/hr annealing furnace with NOx emissions measured by a continuous emissions monitor (CEM) and controlled by a selective catalytic reduction (SCR) system, exhausting to Stack S18,
  - (6) one (1) 7.0 MMBtu/hr natural gas-fired back-up galvanneal soak section burner,
  - (7) one (1) 2.05 MMBtu/hr natural gas-fired preheater for the zinc pot equipment,
  - (8) one (1) induction zinc premelt pot,
  - (9) one (1) induction heated zinc coating pot,
  - (10) one (1) 0.82 MMBtu/hr natural gas-fired edge burner,
  - (11) one (1) water quench cooling section with a closed loop, recirculating water spray,
  - (12) one (1) 4.1 MMBtu/hr natural gas-fired dryer,
  - (13) one (1) skin pass temper mill and one (1) tension leveller,
  - (14) one (1) chromate application system with one (1) roll coater,
  - (15) one (1) 6.0 MMBtu/hr natural gas-fired dryer,
  - (16) one (1) phosphate application system with one (1) roll coater,
  - (17) one (1) 5.68 MMBtu/hr natural gas-fired dryer,
  - (18) one (1) CGL electrostatic oiler, and
  - (19) one (1) rotary shear

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

### Emission Limitations and Standards [326 IAC 2-7-5(1)]

#### D.4.1 Particulate Matter (PM/PM10) Best Available Control Technology (BACT) [326 IAC 2-2]

Pursuant to Construction Permit 147-6713-00041, issued February 13, 1997, operation condition 24, A147-11471-00041, issued April 18, 2002, and 326 IAC 2-2-3 (Best Available Control Technology), the filterable particulate matter (PM/PM10) generated from the alkaline cleaning baths and rinse tanks shall be controlled by a wet scrubber system (S17). The outlet grain loading from the scrubber for filterable particulate matter shall not exceed 0.0022 grains per dscf and 0.125 pounds per hour. Particulate matter (where PM10 includes both filterable and condensable portions) shall not exceed 0.0065 grains per dscf and 0.382 pounds per hour.

The OAQ may revise this permit to adjust the total PM/PM10 limitation based upon the results of IDEM approved stack testing. The Department will provide an opportunity for public notice and comment prior to finalizing any permit revision. IC 13-15-7-3 (Revocation or Modification of a Permit: Appeal to Board) shall apply to this permit condition.

#### D.4.2 Nitrogen Oxides (NOx) Best Available Control Technology (BACT) [326 IAC 2-2]

Pursuant to Construction Permit 147-6713-00041, issued February 13, 1997, operation condition 24, and 326 IAC 2-2-3 (Best Available Control Technology), the outlet nitrogen oxide loading from the 205.7 MMBtu/hr annealing and induction heating galvannealing furnace shall not exceed 0.06 pounds per MMBtu. The nitrogen oxide emissions shall not exceed 12.3 pounds per hour.

#### D.4.3 Continuous Galvanizing Line Processes Best Available Control Technology (BACT) [326 IAC 2-2]

Pursuant to Construction Permit 147-6713-00041, issued February 13, 1997, operation condition 24, and 326 IAC 2-2-3 (Best Available Control Technology):

- (a) The 4.10 MMBtu per hour cleaning section dryer shall only use natural gas.
- (b) The 7.0 MMBtu per hour galvanized soak section backup burner shall only use natural gas.

- (c) The 2.05 MMBtu per hour preheater for the zinc pot equipment shall only use natural gas.
- (d) The induction zinc premelt pot and induction zinc coating pot shall be heated by electricity.
- (e) The 0.82 MMBtu per hour edge burners shall only use natural gas.
- (f) The 4.1 MMBtu per hour galvanizing line dryer shall only use natural gas.
- (g) The 6.0 MMBtu per hour chromate application system dryer shall only use natural gas.
- (h) The 5.68 MMBtu per hour phosphate application with roll coater's dryer shall only use natural gas.
- (i) The rust Preventive oils shall be applied to the metal strips electrostatically.

### **Compliance Determination Requirements**

#### **D.4.4 Testing Requirements [326 IAC 2-7-6(1),(6)] [326 IAC 2-1.1-11]**

Within five years after the most recent stack test or 36 months after issuance of this Part 70 permit, whichever is later, in order to demonstrate compliance with Conditions D.4.1 and D.4.2, the Permittee shall perform PM and PM-10 testing for S17, and NOx testing for S18 utilizing methods as approved by the Commissioner. This test shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. PM-10 includes filterable and condensable components. Testing shall be conducted in accordance with Section C-Performance Testing.

#### **D.4.5 Particulate Matter (PM) Control [326 IAC 2-2]**

Pursuant to Construction Permit 147-6713-00041, issued February 13, 1997, operation condition 24, and 326 IAC 2-2-3 (Best Available Control Technology), the alkaline cleaning baths and rinse tanks shall be enclosed and maintained under negative pressure.

#### **D.4.6 Nitrogen Oxides (NOx) Control [326 IAC 2-2]**

To control NOx emissions and:

- (a) Pursuant to Construction Permit 147-6713-00041, issued February 13, 1997, operation condition 24, and 326 IAC 2-2-3 (Best Available Control Technology), the 205.7 MMBtu/hr annealing and induction heating galvannealing furnace shall be controlled by a selective catalytic reduction control (SCR).
- (b) Pursuant to Construction Permit 147-6713-00041, issued February 13, 1997, operation condition 38, and 326 IAC 2-2 (PSD), that upon startup, the selective catalytic reduction (SCR) system shall be operated at all times when the 205.7 MMBtu per hour annealing furnace is in operation.

#### **D.4.7 Continuous Emissions Monitoring [326 IAC 3-5]**

- (a) Pursuant to 326 IAC 3-5 (Continuous Monitoring of Emissions) the continuous emission monitoring system for the selective catalytic reduction control (SCR) unit shall be calibrated, maintained, and operated for measuring NOx, thereby meeting the performance specifications of 326 IAC 3-5-2.
- (b) The Permittee shall continuously monitor and record NOx emissions from the SCR control unit. This activity shall be conducted in accordance with 326 IAC 3-5.

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

#### **D.4.8 Visible Emissions Notations**

- (a) Visible emission notations of the stack exhaust S17 shall be performed. These notations shall be performed once per day during daylight hours when exhausting to the atmosphere. A trained employee shall record whether emissions are normal or abnormal.
- (b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.
- (c) In the case of batch or discontinuous operations, notations shall be taken during that part of the

operation specified in the facility's specific condition prescribing visible emissions.

- (d) A trained employee, including trained personnel under contract with the source, is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.
- (e) If abnormal emissions are observed, the Permittee shall take reasonable response steps in accordance with Section C - Response to Excursions or Exceedances. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances, shall be considered a deviation of this permit.

#### D.4.9 Parametric Monitoring for Scrubber

- (a) The Permittee shall record the pressure drop and scrubbing liquid flow rate of scrubber S17 at least once per day when the process is in operation. When for any one reading, the pressure drop across the scrubber is outside its normal range, or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C- Response to Excursions or Exceedances. A reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances, shall be considered a deviation from this permit.
- (b) The instruments used for determining the pressure drop, and scrubbing liquid flow rate at the inlet of the control device shall be subject to approval by IDEM, OAQ, and shall be calibrated at least once every six (6) months.

#### D.4.10 Scrubber Failure

In the event that failure of the scrubber has been observed, if operations will continue for ten (10) days or more after the failure is observed before the failed system will be repaired or replaced, the Permittee shall promptly notify the IDEM, OAQ of the expected date the failed system will be repaired or replaced. The notification shall also include the status of the applicable compliance monitoring parameters with respect to normal, and the results of any response actions taken up to the time of notification.

#### D.4.11 Selective Catalytic Reduction System Failure

In the event that the SCR's failure has been observed, if operations will continue for ten (10) days or more after the failure is observed before the failed system will be repaired or replaced, the Permittee shall promptly notify the IDEM, OAQ of the expected date the failed system will be repaired or replaced. The notification shall also include the status of the applicable compliance monitoring parameters with respect to normal, and the results of any response actions taken up to the time of notification.

#### D.4.12 Continuous Emission Monitoring

The Permittee shall calibrate, maintain, certify, and operate the continuous monitoring system for the measurement of the NO<sub>x</sub> emissions discharged into the atmosphere from S18 in accordance with 326 IAC 3-5-2 and 3-5-7.

- (a) The continuous emission monitoring system (CEMS) shall measure NO<sub>x</sub> emission rates in pounds per hour. The use of CEMS to measure and record the NO<sub>x</sub> hourly emission rates over a three (3) hour operating block averaging period is sufficient to demonstrate compliance with the limitations established in condition D.4.2. The source shall maintain records of emission rates in pounds per hour.
- (b) The Permittee shall demonstrate compliance with Condition D.4.2 utilizing data from the NO<sub>x</sub> CEMS, the fuel flow meter, and Method 19 calculations.

#### D.4.13 NO<sub>x</sub> Monitoring System Downtime [326 IAC 2-7-6] [326 IAC 2-7-5(3)]

Whenever the NO<sub>x</sub> continuous emission monitoring system is malfunctioning or down for repairs or adjustments, the following method shall be used to provide information related to NO<sub>x</sub> emissions:

Monitoring of the SCR operating parameters for ammonia flow rate and inlet duct temperature, shall be implemented. The parameters are as follows:

- (a) The Permittee shall record the ammonia flow rate and inlet duct temperature at least four (4) times per hour until the primary CEM or a backup CEM is brought online and functioning properly. The Preventive

Maintenance Plan for the SCR shall contain troubleshooting contingency and corrective actions for when the readings are outside of the normal range for any one reading during downtime of the NOx CEMS. When for any one reading, the ammonia flow rate and inlet duct temperature are outside the normal range during downtime of the NOx CEMS, the Permittee shall take reasonable response steps in accordance with Section C – Response to Excursions or Exceedances.

- (b) The instrument used for determining the ammonia flow rate and inlet duct temperature shall comply with Section C - Instrument Specifications, of this permit, shall be subject to approval by IDEM, OAQ, and shall be calibrated at least once every six (6) months.

Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances, shall be considered a deviation from this permit.

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

#### **D.4.14 Record Keeping Requirements**

- (a) To document compliance with condition D.4.2, the Permittee shall maintain records of the emission rates of NO<sub>x</sub> in pounds per hour.
- (b) To document compliance with condition D.4.8, the Permittee shall maintain records of visible emission notations for stack S17.
- (c) To document compliance with condition D.4.9, the Permittee shall maintain once per day records of the pressure drop across the scrubber S17 and scrubbing liquid flow rate.
- (d) To document compliance with condition D.4.12, the Permittee shall record the output of the CEM system and shall perform the required record keeping and reporting in accordance with 326 IAC 3-5-6 and 326 IAC 3-5-7, respectively.
- (e) To document compliance with condition D.4.13, the Permittee shall record the ammonia flow rate and inlet duct temperature of the SCR at least four (4) times per hour until the primary CEMS or a backup CEMS is brought online.
- (f) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit. Records necessary to demonstrate compliance shall be available within 30 days of the end of each compliance period.

#### **D.4.15 Reporting Requirements**

- (a) A written report of excess emissions measured by the continuous emissions monitor shall be submitted each calendar quarter to the addresses listed in Section C- General Reporting Requirements, of this permit, using the reporting forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the quarter being reported. Pursuant to 326 IAC 3-5-7, the averaging periods used to determine excess emissions shall be three hour block periods ending at 03:00, 06:00, 09:00, 12:00, 15:00, 18:00, 21:00, and 24:00. The excess emissions report shall consist of the following:
  - (1) A description of the nature and cause of the excess emissions, if known.
  - (2) The date and time identifying each period during which the continuous monitoring system was inoperative or malfunctioning, except for zero and span checks, and the nature of the system repair or adjustments.
  - (3) When no excess emissions have occurred and the continuous monitoring system has not been inoperative, repaired, or adjusted.
- (b) The report described in part (a) of this condition as submitted by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

## SECTION D.5

## FACILITY OPERATION CONDITIONS

### Facility Description [326 IAC 2-7-5(15)]:

- (f) A Roll Repair Shop consisting of:
- (1) Two (2) electrolytic chrome dip tanks, identified as 1 East and 1 West constructed in 1998, rated at 36 tons per hour steel rolls each, or 5.5 gallons per hour chromium solution, with both exhausting through a mesh pad mist elimination system to Stack S15.
  - (2) One (1) electrodischarge texturing machine exhausting through a baghouse to the interior of the building.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

### Emission Limitations and Standards [326 IAC 2-7-5(1)]

#### D.5.1 Particulate Matter (PM) Best Available Control Technology (BACT) [326 IAC 2-2]

- (a) That pursuant to 326 IAC 2-2-3 (Best Available Control Technology), and Construction Permit Amendment 147-9557-00041, issued May 6, 1998, operation condition 27, the particulate matter generated, measured as chromium, from the electrolytic chrome dip tanks located in the roll repair shop shall be controlled by a mesh pad mist elimination system. The outlet grain loading shall not exceed  $6.6 \times 10^{-6}$  grains/dscf.
- (b) That pursuant to 326 IAC 2-2-3 (Best Available Control Technology), Construction Permit Amendment 147-9557-00041, issued May 6, 1998, operation condition 29, and A147-11471-00041, issued April 18, 2002, the particulate matter generated from the electrodischarge texturing machine located in the roll repair shop shall be controlled by a baghouse. The outlet grain loading shall not exceed 0.002 grains per dscf. The particulate matter emissions from the baghouse exhaust shall not exceed 0.012 pounds per hour.

#### D.5.2 General Provisions Relating to HAPs [326 IAC 20-1-1][40 CFR Part 63, Subpart A]

- (a) The provisions of 40 CFR Part 63, Subpart A - General Provisions, which are incorporated by reference as 326 IAC 20-1-1, apply to the facility described in this section except when otherwise specified in 40 CFR Part 63, Subpart N. The Permittee shall comply with the requirements of this condition on and after the compliance date for the tanks.
- (b) Pursuant to Construction Permit 147-6713-00041, issued February 13, 1997, operation condition 19, and Amendment 147-11471-00041, issued April 18, 2002, and 326 IAC 2-2 (PSD), the emissions of hazardous air pollutants from the entire source shall be less than 10 tons per 365 day period for any individual HAP and 25 tons per 365 day period of any combination of HAPs.

#### D.5.3 Chromium Electroplating and Anodizing NESHAP [326 IAC 20-8-1] [40 CFR Part 63, Subpart N]

The provisions of 40 CFR 63, Subpart N - National Emission Standards for Chromium Emissions From Hard and Decorative Chromium Electroplating and Chromium Anodizing Tanks, which are incorporated by reference as 326 IAC 20-8-1, apply to the electrolytic chrome dip tanks. The Permittee shall comply with the requirements of this condition on and after the compliance date for the tank.

#### D.5.4 Chromium Emissions Limitation [40 CFR 63.342(c)] [40 CFR 63.343(a)(1)&(2)]

- (a) The emission limitations in this condition apply only during tank operation, and also apply during periods of startup and shutdown as these are routine occurrences for tanks subject to 326 IAC 20-8-1. The emission limitations do not apply during periods of malfunction.
- (b) The hard chromium electroplating tank, identified as 1 East and 2 West above, is considered a large, new hard chromium electroplating operation. During tank operation, the Permittee shall control chromium emissions discharged to the atmosphere from the tank by not allowing the concentration of total chromium in the exhaust gas stream discharged to the atmosphere to exceed 0.015 mg/dscm [ $6.6 \times 10^{-6}$  gr/dscf].

#### D.5.5 Work Practice Standards [40 CFR 63.342(f)]

The following work practice standards apply to the electrolytic chrome dip tanks:

- (a) At all times, including periods of startup, shutdown, malfunction and excess emissions, the Permittee shall operate and maintain the tanks, composite mesh-pad, the mesh pad mist elimination system (S15) and monitoring equipment, in a manner consistent with good air pollution control practices, consistent with the Operation and Maintenance Plan (OMP) required by Condition D.5.6.
- (b) Malfunctions and excess emissions shall be corrected as soon as practicable after their occurrence in accordance with the OMP required by Condition D.5.6.
- (c) These operation and maintenance requirements are enforceable independent of emissions limitations or other requirements in this section.
- (d) Determination of whether acceptable operation and maintenance procedures are being used will be based on information available to IDEM, OAQ, which may include, but is not limited to, monitoring results; review of the OMP, procedures, and records; and inspection of the source.
- (e) Based on the results of a determination made under paragraph (d) of this condition, IDEM, OAQ may require that the Permittee make changes to the OMP required by Condition D.5.6. Revisions may be required if IDEM, OAQ finds that the plan:
  - (1) Does not address a malfunction or period of excess emissions that has occurred;
  - (2) Fails to provide for the operation of the electrolytic chrome dip tanks, the composite mesh-pad, or the mesh pad mist elimination system and process monitoring equipment during a malfunction or period of excess emissions in a manner consistent with good air pollution control practices; or
  - (3) Does not provide adequate procedures for correcting malfunctioning process equipment, composite mesh-pad, monitoring equipment or other causes of excess emissions as quickly as practicable.

For the electrolytic chrome dip tanks, the Permittee shall comply with the requirements of this condition on and after the start-up date of each tank.

The work practice standards that address operation and maintenance must be followed during malfunctions and periods of excess emissions.

#### D.5.6 Operation and Maintenance Plan [40 CFR 63.342(f)(3)]

- (a) The Permittee shall prepare an Operation and Maintenance Plan (OMP) to be implemented no later than the startup date of the electrolytic chrome dip tanks. The OMP shall specify the operation and maintenance criteria for the tanks, the composite mesh-pad, the mesh pad mist elimination system and monitoring equipment and shall include the following elements:
  - (1) For the composite mesh-pad system (CMP):
    - (A) Quarterly visual inspections of the device to ensure there is proper drainage, no chromic acid buildup on the pads, and no evidence of chemical attack on the structural integrity of the device.
    - (B) Quarterly visual inspection of the back portion of the mesh pad closest to the fan to ensure there is no breakthrough of chromic acid mist.
    - (C) Quarterly visual inspection of the duct work from the tank to the control device to ensure there are no leaks.
    - (D) Perform washdown of the composite mesh-pads in accordance with manufacturers recommendations.
  - (2) A standardized checklist to document the operation and maintenance criteria for the electrolytic chrome dip tanks, the air pollution control device, the add-on air pollution control device and the monitoring equipment.

- (3) Procedures to be followed to ensure that equipment or process malfunctions due to poor maintenance or other preventable conditions or periods of excess emissions as indicated by monitoring data do not occur.
  - (4) A systematic procedure for identifying malfunctions and periods of excess emissions of the electrolytic chrome dip tanks, the air pollution control device, the add-on air pollution control device and monitoring equipment; and for implementing corrective actions to address such malfunctions and periods of excess emissions.
- (b) The Permittee may use applicable standard operating procedures (SOP) manuals, Occupational Safety and Health Administration (OSHA) plans, or other existing plans such as the PMP required in this condition as the OMP, provided the alternative plans meet the above listed criteria in Condition D.5.6(a).
  - (c) If the OMP fails to address or inadequately addresses an event that meets the characteristics of a malfunction or period of excess emissions at the time the plan is initially developed, the Permittee shall revise the OMP within forty-five (45) days after such an event occurs. The revised plan shall include procedures for operating and maintaining the electrolytic chrome dip tanks, the air pollution control device, the add-on air pollution control device and the monitoring equipment, during similar malfunction or period of excess emissions events, and a program for corrective action for such events.
  - (d) If actions taken by the Permittee during periods of malfunction or period of excess emissions are inconsistent with the procedures specified in the OMP, the Permittee shall record the actions taken for that event and shall report by phone such actions within two (2) working days after commencing actions inconsistent with the plan. This report shall be followed by a letter within seven (7) working days after the end of the event, unless the Permittee makes alternative reporting arrangements, in advance, with IDEM, OAQ.
  - (e) The Permittee shall keep the written OMP on record after it is developed to be made available, upon request, by IDEM, OAQ for the life of the electrolytic chrome dip tanks or until the tanks are no longer subject to the provisions of 40 CFR 63.340. In addition, if the OMP is revised, the Permittee shall keep previous versions of the OMPs on record to be made available for inspection, upon request by IDEM, OAQ for a period of five (5) years after each revision to the plan.

#### **Compliance Determination Requirements [326 IAC 2-1.1-11] [326 IAC 2-7-6(1)]**

##### **D.5.7 Performance Testing [326 IAC 2-1.1-11][326 IAC 2-7-6(1)][40 CFR 63.343(b)(2)] [40 CFR 63.7] [40 CFR 63.344]**

- (a) A performance test demonstrating initial compliance for tanks 1 and 2 was performed on January 20, 1999.  
  
During the initial performance test conducted on January 20, 1999, it was determined that the average pressure drop across the composite mesh pad system was 4.0 inches of water and the average outlet chromium concentration is 0.00336 mg/dscm.
- (b) The Permittee is not required to further test the electrolytic chrome dip tanks by this permit. However, the IDEM may require testing when necessary to determine if the tanks are in compliance. If testing is required by the IDEM, compliance with the limit specified in Conditions D.5.1(a) and D.5.4 shall be determined by a performance test conducted in accordance with 40 CFR 63.344 and Section C - Performance Testing.
- (c) Any change, modification, or reconstruction of the electrolytic chrome dip tanks, the composite mesh-pad, the mesh pad mist elimination system or monitoring equipment may require additional performance testing conducted in accordance with 40 CFR 63.344 and Section C - Performance Testing.

##### **D.5.8 Monitoring to Demonstrate Continuous Compliance [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)] [40 CFR 63.343(c)]**

- (a) Pursuant to 40 CFR 63.343(c)(1)(ii), when using a composite mesh-pad system to comply with the limit specified in Condition D.5.4, the Permittee shall monitor and record the pressure drop across the composite mesh-pad system during tank operation once each day when a hard chromium electroplating tank is operating. To be in compliance with the standards, the composite mesh-pad system shall be operated within  $\pm 1$  inch of water column of the pressure drop value established during the initial performance test, or within the range of compliant values for pressure drop established during multiple

performance tests.

- (b) Tank operation or operating time is defined as that time when a part is in the tank and the rectifier is turned on. If the amount of time that no part is in the tank is fifteen minutes or longer, that time is not considered operating time. Likewise, if the amount of time between placing parts in the tank (i.e., when no part is in the tank) is less than fifteen minutes, that time between plating the two parts is considered operating time.

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

#### **D.5.9 Record Keeping Requirements [326 IAC 2-7-5(3)] [40 CFR 63.346]**

The Permittee shall maintain records to document compliance with Conditions D.5.1, D.5.2 and D.5.3. These records shall be maintained in accordance with Section C - General Record Keeping Requirements of this permit and include a minimum of the following:

- (a) Inspection records for the composite mesh-pad system, the mesh pad mist elimination system and monitoring equipment to document that the inspection and maintenance required by Condition D.5.6 has taken place. The record can take the form of a checklist and should identify the following:
  - (1) The device inspected;
  - (2) The date of inspection;
  - (3) A brief description of the working condition of the device during the inspection, including any deficiencies found; and
  - (4) Any actions taken to correct deficiencies found during the inspection, including the date(s) such actions were taken.
- (b) Records of all maintenance performed on the electrolytic chrome dip tanks, the mist elimination system and monitoring equipment.
- (c) Records of the occurrence, duration, and cause (if known) of each malfunction of the electrolytic chrome dip tanks, the composite mesh-pad system and monitoring equipment.
- (d) Records of the occurrence, duration, and cause (if known) of each period of excess emissions of the electrolytic chrome dip tanks, the composite mesh-pad system and monitoring equipment as indicated by monitoring data collected in accordance with this condition.
- (e) Records of actions taken during periods of malfunction or excess emissions when such actions are inconsistent with the OMP.
- (f) Other records, which may take the form of checklists, necessary to demonstrate consistency with the provisions of the OMP.
- (g) Test reports documenting results of all performance tests.
- (h) All measurements as may be necessary to determine the conditions of performance tests, including measurements necessary to determine compliance.
- (i) Records of monitoring data required by 40 CFR 63.343(c) that are used to demonstrate compliance with the standard including the date and time the data are collected.
- (j) The total process operating time, as defined in Condition D.5.7(b), of each tank, during the reporting period.
- (k) Records of the actual cumulative rectifier capacity of each hard chromium electroplating tank expended during each month of the reporting period, and the total capacity expended to date for a reporting period.
- (l) All documentation supporting the notifications and reports required by 40 CFR 63.9 and 63.10 (Subpart

A, General Provisions) and by Condition D.5.9.

D.5.10 Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 3-6-4(b)] [40 CFR 63.344(a), 63.345 and 63.347]

The notifications and reports required in this section shall be submitted to IDEM, OAQ using the address specified in Section C - General Reporting Requirements.

(a) Notifications:

(1) A Notification of Compliance Status (NCS) is required each time that the facility becomes subject to the requirements of 40 CFR Part 63 Subpart N.

(A) The NCS shall be submitted to IDEM, OAQ, and shall list, for each tank, the information identified in 40 CFR 63.347(e)(2).

(B) The NCS for tanks 1 and 2 shall be submitted to IDEM, OAQ no later than forty-five (45) days following completion of the compliance demonstration pursuant to Section C - Performance Testing.

(2) Notification of Construction or Reconstruction

Pursuant to 40 CFR 63.345(b)(1), the Permittee may not construct a new tank subject to 40 CFR 63, Subpart N (including non-affected tanks defined in 40 CFR 63.344(e)) without submitting a Notification of Construction or Reconstruction (NCR) to IDEM, OAQ. In addition, the Permittee may not change, modify, or reconstruct the electrolytic chrome dip tanks without submitting a Notification of Construction or Reconstruction (NCR) to IDEM, OAQ.

(A) The NCR shall contain the information identified in 40 CFR 63.345(b)(2) and (3).

(B) A change, modification, or reconstruction of this facility includes any change in the air pollution control techniques, the addition of add-on control devices, or the construction of duct work for the purpose of controlling both existing tanks and non-affected facilities by a common control technique or device [i.e., the addition of duct work to the CMP system].

(C) A complete application to construct new chromium electroplating or chromium anodizing tanks serves as this notification. Likewise, the complete application to modify or reconstruct the electrolytic chrome dip tank serves as this notification.

(D) Pursuant to 326 IAC 2-1.1-2(a), permission must be received from IDEM, OAQ before construction, modification, or reconstruction may commence.

(b) Performance Test Results

The Permittee shall document results from any future performance tests in a complete test report that contains the information required in 40 CFR 63.344(a).

The Permittee shall submit reports of performance test results as part of the Notification of Compliance Status, described in 40 CFR 63.347(e), no later than forty-five (45) days following the completion of the performance test.

(c) Ongoing Compliance Status Report

The Permittee shall prepare summary reports to document the ongoing compliance status of the electrolytic chrome dip tanks using the Ongoing Compliance Status Report form provided with this permit. This report shall contain the information specified in 40 CFR 63.347(g)(3).

Because tank RRS is located at a site that is an area source of hazardous air pollutants (HAPs), the Ongoing Compliance Status Report shall be retained on site and made available to IDEM, OAQ upon request.

(1) The Ongoing Compliance Status Report shall be completed according to the following schedule except as provided in paragraphs (c)(2).

(A) The first report shall cover the period from the issuance date of this permit to

December 31 of the year in which the permit is issued.

- (B) Following the first year of reporting, the report shall be completed on a calendar year basis with the reporting period covering from January 1 to December 31.
- (2) If both of the following conditions are met, semiannual reports shall be prepared and submitted to IDEM, OAQ:
- (A) The total duration of excess emissions [as indicated by the monitoring data collected by the Permittee in accordance with 40 CFR 63.343(c)] is one percent (1%) or greater of the total operating time as defined in Condition D.5.7(b) for the reporting period; and
  - (B) The total duration of malfunctions of the add-on air pollution control device and monitoring equipment is five percent (5%) or greater of the total operating time as defined in Condition D.5.7(b).

Once the Permittee reports an exceedance as defined above, Ongoing Compliance Status Reports shall be submitted semiannually until a request to reduce reporting frequency in accordance with 40 CFR 63.347(g)(2) is approved.

- (3) IDEM, OAQ may determine on a case-by-case basis that the summary report shall be completed more frequently and submitted, or that the report required of (c)(2) above shall be submitted instead of being retained on site, if these measures are necessary to accurately assess the compliance status of the source.

## SECTION D.6

## FACILITY OPERATION CONDITIONS

### Facility Description [326 IAC 2-7-5(15)]:

- (g) Ancillary Equipment, as follows;
- (1) Hydrogen batch annealing with fifteen (15) natural gas-fired furnaces with low-NOx burners rated at 6.75 MMBtu/hr exhausting through the roof vent system in building 500;
  - (2) Space heaters and air make-up units with each unit limited to no more than 5.2 MMBtu per hour and a combined rating limited to no more than 251 MMBtu/hr;
  - (3) Two (2) non-contact cooling towers with mist drift eliminators exhausting to the atmosphere;
  - (4) Storage tanks for HCl, nitric acid, and HF exhausting through a fume scrubber to Stack S04 consisting of:
    - (A) One (1) HF acid tank with a capacity of 20,000 gallons;
    - (B) One (1) nitric acid tank with a capacity of 20,000 gallons;
    - (C) Three (3) waste acid tanks, each with a capacity of 40,000 gallons, or 120,000 gallons combined;
    - (D) Three (3) HCl/ra acid tanks, each with a capacity of 20,000 gallons, or 60,000 gallons combined; and
    - (E) Two (2) CPL waste acid tanks, each with a capacity of 20,000 gallons, or 40,000 gallons combined.
  - (5) Miscellaneous storage tanks at the continuous cold mill (CCM) operation not to exceed an overall capacity of 353,000 gallons, consisting of:
    - (A) Two (2) Morgoil System 2 tanks, No.1 and No.2, each with a capacity of 18,500 gallons, or 37,000 gallons combined;
    - (B) One (1) CCM gear lube tank, with a capacity of 13,500 gallons;
    - (C) One (1) base oil storage tank, with a capacity of 10,000 gallons;
    - (D) One (1) direct oil tank, with a capacity of 4,000 gallons;
    - (E) Two (2) Emulsion tanks, No.1 and No.2, each with a capacity of 88,000 gallons, or 176,000 gallons combined; and
    - (F) Two (2) Emulsion tanks, No.3 and No.4, each with a capacity of 44,000 gallons, or 88,000 gallons combined;
  - (6) Miscellaneous storage tanks at the temper mill operation not to exceed an overall capacity of 131,000 gallons, consisting of:
    - (A) One (1) direct oil application tank, with a capacity of 4,000 gallons;
    - (B) Three (3) temper mill tanks, TM1-UZ203, LSL-01, 02, and 03, each with a capacity of 10,000 gallons, or 30,000 gallons combined;
    - (C) One (1) base oil tank, with a capacity of 8,000 gallons;
    - (D) One (1) solution tank, with a capacity of 3,200 gallons;
    - (E) One (1) gear lube tank, TM-1-P-2084, with a capacity of 2,100 gallons; and
    - (F) Two (1) Morgoil tanks, TM-1-P-2000 and 99, each with a capacity of 5,300 gallons, or 10,600 gallons combined.
  - (7) Miscellaneous oil storage tanks for the continuous galvanizing line (CGL) not to exceed an overall capacity of 16,250 gallons, consisting of:
    - (A) One (1) tank, GL1-PGOL-TNK-01, with a capacity of 6,000 gallons; and
    - (B) Three (3) tanks, GL1-PGOL-TNK-02, 03, and 04, each with a capacity of 3,000 gallons, or 9,000 gallons combined.
  - (8) A miscellaneous oil storage tank for the continuous pickling line (CPL), consisting of one (1) CPL pickling tank, with a capacity of 15,000 gallons.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

### Emission Limitations and Standards [326 IAC 2-7-5(1)]

#### D.6.1 State Construction and Operating Permit: Construction Permit [326 IAC 2-1.1]

Pursuant to Construction Permit 147-6713-00041, issued February 13, 1997, operation condition 33, and pursuant to 326 IAC 2-1.1 (State Construction and Operating Permit: Construction Permit), the space heaters

and air make-up units shall be limited as follows:

- (a) each unit shall burn only natural gas,
- (b) each unit may vary in size up to a maximum of 5.2 MMBtu per hour and shall not exceed a total combined capacity of 251 MMBtu per hour, and
- (c) space heater operations utilizing natural gas shall be restricted to the months of October through April.

**D.6.2 Particulate Matter (PM) Best Available Control Technology (BACT) [326 IAC 2-2]**

- (a) Pursuant to Construction Permit 147-6713-00041, issued February 13, 1997, operation condition 34, and pursuant to 326 IAC 2-2-3 (Best Available Control Technology), the mist from the two (2) non-contact cooling towers shall be controlled by drift eliminators and exhausted to the atmosphere. The drift losses from each of the cooling towers shall not exceed 0.005% of cooling water.
- (b) Pursuant to 326 IAC 2-2-3 (Best Available Control Technology), Construction Permit 147-6713-00041, issued February 13, 1997, operation condition 35, the storage tanks for CPL HCl, nitric acid, and HF shall be controlled by a fume scrubber system. The outlet grain loading from the scrubber shall not exceed 0.0066 grains per dscf. The particulate matter emissions from Stack S04 shall not exceed 0.0967 pounds per hour.

**D.6.3 Nitrogen Oxides (NOx) Best Available Control Technology (BACT) [326 IAC 2-2]**

Pursuant to Construction Permit 147-6713-00041, issued February 13, 1997, operation condition 26, and pursuant to 326 IAC 2-2-3 (Best Available Control Technology), the outlet NOx loading from the fifteen (15) 6.75 MMBtu per hour hydrogen batch annealing furnaces shall not exceed 0.1 pounds per MMBtu. The nitrogen oxide emissions shall not exceed 9.45 pounds per hour.

**Compliance Determination Requirements**

**D.6.4 Nitrogen Oxides (NOx) Control [326 IAC 2-2]**

Pursuant to Construction Permit 147-6713-00041, issued February 13, 1997, operation condition 26, and pursuant to 326 IAC 2-2-3 (Best Available Control Technology), the fifteen (15) 6.75 MMBtu per hour hydrogen batch annealing furnaces shall use only natural gas and shall be equipped with low-NOx burners.

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

**D.6.5 Parametric Monitoring for Scrubber**

- (a) The Permittee shall record the pressure drop range, and the scrubbing liquid flow rate of scrubber S04 at least once per day when the process is in operation. The process operation occurs each time material is being added to or taken from the tanks controlled by scrubber S04. When for any one reading, the pressure drop range across the scrubber is outside the range of 0.4 to 4.0 inches, or the scrubbing liquor is below the minimum flow rate of 5 gallons per minute or a range as established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C-Response to Excursions or Exceedances. A reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances, shall be considered a deviation from this permit.
- (b) The instruments used for determining the pressure drop, and scrubbing liquid flow rate at the inlet of the control device shall be subject to approval by IDEM, OAQ, and shall be calibrated at least once every six (6) months.

**D.6.6 Scrubber Failure**

In the event that failure of a scrubber (S04) has been observed, if operations will continue for ten (10) days or more after the failure is observed before the failed system will be repaired or replaced, the Permittee shall promptly notify the IDEM, OAQ of the expected date the failed system will be repaired or replaced. The notification shall also include the status of the applicable compliance monitoring parameters with respect to normal, and the results of any response actions taken up to the time of notification.

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

**D.6.7 Record Keeping**

- (a) Pursuant to 326 IAC 12 and 40 CFR Part 60.110b, Subpart Kb (Standards of Performance for Storage Vessels for Petroleum Liquids), the owner or operator of all storage vessels shall keep readily accessible records of the tank dimensions and tank capacity.
- (b) To document compliance with Condition D.6.5, the Permittee shall maintain once per day records of the pressure drop range across the scrubber, and the flow rate of the scrubbing liquor.
- (c) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit. Records necessary to demonstrate compliance shall be available within 30 days of the end of each compliance period.

## SECTION D.7

## FACILITY OPERATION CONDITIONS

### Facility Description [326 IAC 2-7-5(15)]:

(h) Rolling oils, rust preventative oils, and prelube oils.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

### Emission Limitations and Standards [326 IAC 2-7-5(1)]

#### D.7.1 Volatile Organic Compounds (VOC) Best Available Control Technology (BACT) [326 IAC 2-2]

Pursuant to Construction Permit 147-6713-00041, issued February 13, 1997, operation condition 20, and 326 IAC 2-2-3 (Best Available Control Technology), the volatile organic compound (VOC) emissions of the various oils shall meet the following:

- (a) the VOC content of any rolling oil employed shall not exceed 6.9 pounds of VOC per gallon of oil, excluding water and exempt solvents;
- (b) the VOC content of any rust Preventive oil employed shall not exceed 3.3 pounds of VOC per gallon of oil, excluding water and exempt solvents; and
- (c) the VOC content of any prelube oil employed shall not exceed 0.8 pounds of VOC per gallon of oil, excluding water and exempt solvents.

#### D.7.2 Volatile Organic Compounds (VOC) Best Available Control Technology (BACT) [326 IAC 2-2]

Pursuant to Construction Permit 147-6713-00041, issued February 13, 1997, operation condition 20, and 326 IAC 2-2-3 (Best Available Control Technology), the volatile organic compound (VOC) emissions of the various oils shall contain no hazardous air pollutants (HAPs) as defined in 326 IAC 14-1-2 and 40 CFR 61.02 and 61.03.

#### D.7.3 Surface Coating Emission Limitations [326 IAC 8-2-1]

Pursuant to 326 IAC 8-2-4 (Coil Coating Operations) part (b), after December 31, 1985, no owner or operator of a coil coating line may cause, allow, or discharge into the atmosphere of any volatile organic compounds in excess of 0.31 kilograms per liter of coating (2.6 pounds per gallon) excluding water.

### Compliance Determination Requirements

#### D.7.4 VOC and HAPs

Material Safety and Data Sheets shall be kept on site by the Permittee for the various oils to show compliance with Conditions D.7.1, D.7.2 and 7.3.

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

#### D.7.5 Record Keeping Requirements

All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit. Records necessary to demonstrate compliance shall be available within 30 days of the end of each compliance period.

## SECTION D.8

## FACILITY OPERATION CONDITIONS

### Facility Description [326 IAC 2-7-5(15)]:

- (i) Process boilers consisting of:
- (1) North Boilers: Two (2) natural gas-fired boilers with ultra low-NOx burners, constructed in 1998, each rated at 76.0 MMBtu/hr heat input, exhausting to Stack S03.
  - (2) South Boilers: Two (2) natural gas-fired boilers with ultra low-NOx burners, constructed in 1998, each rated at 76.0 MMBtu/hr heat input, exhausting to Stack S20.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

### Emission Limitations and Standards [326 IAC 2-7-5(1)]

#### D.8.1 Particulate Matter Limitation (PM) [326 IAC 6-2-4]

Pursuant to 326 IAC 6-2-4(a)(Particulate emission limitations for sources of indirect heating: emission limitations for facilities specified in 326 IAC 6-2-1(d)), particulate emissions from all facilities used for indirect heating purposes which were constructed after September 21, 1983, shall not exceed 0.25 pounds of particulate matter per million British thermal units heat input as established by the following equation:

$$Pt = \frac{1.09}{Q^{0.26}}$$

Where: Pt= Pounds of particulate matter emitted per million Btu (lb/MMBtu) heat input.  
Q= Total source maximum operating capacity rating in million Btu per hour (MMBtu/hr).

For the facilities exhausting to Stacks S03 and S20, Q equals 304 MMBtu per hour heat input.

#### D.8.2 Nitrogen Oxides (NOx) Best Available Control Technology (BACT) [326 IAC 2-2]

Pursuant to Significant Source Modification 147-19502-00041, issued August 5, 2005:

- (a) The two 76.0 MMBtu package boilers (known as the North Boilers) shall use only natural gas and shall be equipped with ultra low NOx burners. The total outlet nitrogen oxide loading from each individual boiler shall not exceed 0.04 pounds per MMBtu. The nitrogen oxide emissions from Stack S03 shall not exceed 3.04 pounds per hour from each individual boiler.
- (b) The two 76.0 MMBtu package boilers (known as the South Boilers) shall use only natural gas and shall be equipped with ultra low NOx burners. The total outlet nitrogen oxide loading from each individual boiler shall not exceed 0.04 pounds per MMBtu. The nitrogen oxide emissions from Stack S20 shall not exceed 3.04 pounds per hour from each individual boiler.

#### D.8.3 Particulate Matter (PM), Carbon Monoxide (CO), and Volatile Organic Compounds (VOC) Best Available Control Technology (BACT) [326 IAC 2-2]

Pursuant to the Technical Support Document for Construction Permit 147-6713-00041, issued February 13, 1997, and 326 IAC 2-2-3 (Best Available Control Technology), the North and South boilers shall only combust natural gas as BACT for PM, CO, and VOC.

### Compliance Determination Requirements

#### D.8.4 Particulate Matter

In order to demonstrate compliance with condition D.8.1, the boilers shall only combust natural gas as fuel.

#### D.8.5 Nitrogen Oxides

The ultra low-NOx burners for each boiler shall be operating at all times the boilers are in operation.

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

### **D.8.6 Record Keeping Requirements**

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- (a) Pursuant to Construction Permit 147-6713-00041, issued February 13, 1997, operation condition 32, 326 IAC 2-2 (PSD), 326 IAC 12, and 40 CFR Part 60.40c, Subpart Dc (Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating units), the natural gas usage of the four (4) 76.0 MMBtu per hour package boilers shall be recorded and maintained as required in NSPS 60.48c(g).
- (b) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit. Records necessary to demonstrate compliance shall be available within 30 days if the end of each compliance period.

### **D.8.7 Reporting Requirements**

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- (a) A quarterly summary of the information to document compliance with Condition D.8.2 shall be submitted to the address listed in Section C - General Reporting Requirements, of this permit, within thirty (30) days after the end of the quarter being reported. The report submitted by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).
- (b) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit. Records necessary to demonstrate compliance shall be available within 30 days of the end of each compliance period.

**SECTION D.9**

**FACILITY OPERATION CONDITIONS - Insignificant Activities**

**Air Liquide Industrial, U.S.L.P.**

Facility Description [326 IAC 2-7-5(15)]: This industrial gas production plant consists of the following:

- (a) One (1) hydrogen generator using natural gas as feedstock, maximum input capacity of 6.24 MMBtu/hr;
- (b) One (1) cooling tower, maximum capacity of 3,700 gallons per minute; and
- (c) One (1) natural gas fired emergency generator, maximum capacity of 80 KVA, with natural gas consumption rate of 1,138 cuft per hour.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

**Emission Limitations and Standards [326 IAC 2-7-5(1)]**

**D.9.1 Nitrogen Oxides (NOx)**

Any change or modification which may increase the potential nitrogen oxides emissions to 10 tons per year or more from this process must be approved by the Office of Air Quality (OAQ) before such a change may occur.

**D.9.2 Insignificant Thresholds [326 IAC 2-7-1]**

Pursuant to 326 IAC 2-7-1(21), to remain an insignificant activity, the potential uncontrolled emissions of the industrial gas production plant shall be less than the following:

Lead (Pb)= 0.6 ton/year or 3.29 lbs/day  
Sulfur Dioxide (SO2)= 5 lbs/hour or 25 lbs/day  
Nitrogen Oxides (NOx)= 5 lbs/hour or 25 lbs/day

Carbon Monoxide (CO)= 25 lbs/day  
Particulate Matter (PM)= 5 lbs/hour or 25 lbs/day  
Volatile Organic Compounds (VOC)= 3 lbs/hour or 15 lbs/day

**SECTION D.10**

**FACILITY OPERATION CONDITIONS- Insignificant Activities**

**Precision Strip, Inc.**

Facility Description [326 IAC 2-7-5(15)]: A steel coil slitting operation consisting of:

- (a) One (1) backup electrostatic oiler, with a maximum capacity of 123.2 pounds per hour oil, not to exceed 15% of Precision Strip's total operation.
- (b) Mechanical cold rolled steel coil slitting operation, rated at 176,000 pounds per hour coiled steel, using various oils, with no emissions.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

**Emission Limitations and Standards [326 IAC 2-7-5(1)]**

**D.10.1 Surface Coating Emission Limitations [326 IAC 8-2-1]**

Pursuant to 326 IAC 8-2-4 (Coil Coating Operations) part (b), after December 31, 1985, no owner or operator of a coil coating line may cause, allow, or discharge into the atmosphere of any volatile organic compounds in excess of 0.31 kilograms per liter of coating (2.6 pounds per gallon) excluding water.

**D.10.2 Usage Limit**

Pursuant to Amendment 147-9787-00050, issued October 2, 1998, the electrostatic oiler shall only be operated as a back-up unit in the event that any of AK Steel's electrostatic oilers, which were properly permitted under CP 147-6713-00041, breaks down or if steel coils produced by AK Steel need to be re-oiled after they have been slit per customer request. This electrostatic oiling shall not exceed 15 percent of Precision Strip's total operation.

**D.10.3 VOC**

Pursuant to 326 IAC 2-7-1(21), to remain an insignificant activity, the potential uncontrolled VOC emissions of this steel coil slitting operation shall be less than 3 lbs/hour or 15 lbs/day.

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

**D.10.4 Record Keeping Requirements**

- (a) Precision Strip, Inc., shall keep production records for the back-up electrostatic oiler on site and available at all times to show compliance with condition D.10.1, D.10.2 and D.10.3.
- (b) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit. Records necessary to demonstrate compliance shall be available within 30 days of the end of each compliance period.

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
OFFICE OF AIR QUALITY  
COMPLIANCE BRANCH**

**PART 70 OPERATING PERMIT  
CERTIFICATION**

Source Name: AK Steel Corporation, Rockport Works  
Source Address: 6500 North U.S. 231, Rockport, Indiana, 47635  
Mailing Address: Same  
Part 70 Permit No.: T147-11043-00041

**This certification shall be included when submitting monitoring, testing reports/results  
or other documents as required by this permit.**

Please check what document is being certified:

- Annual Compliance Certification Letter
- 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:

Phone:

Date:

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
OFFICE OF AIR QUALITY  
COMPLIANCE BRANCH  
100 North Senate Avenue, MC61-53  
Indianapolis, Indiana 46204-2251  
Phone: 317-233-0178  
Fax: 317-233-6865**

**PART 70 OPERATING PERMIT  
EMERGENCY OCCURRENCE REPORT**

Source Name: AK Steel Corporation, Rockport Works  
Source Address: 6500 North U.S. 231, Rockport, Indiana, 47635  
Mailing Address: Same  
Part 70 Permit No.: T147-11043-00041

**This form consists of 2 pages**

**Page 1 of 2**

- This is an emergency as defined in 326 IAC 2-7-1(12)
- The Permittee must notify the Office of Air Quality (OAQ), within four (4) business hours (1-800-451-6027 or 317-233-0178, ask for Compliance Section); and
  - The Permittee must submit notice in writing or by facsimile within two (2) days (Facsimile Number: 317-233-6865), and follow the other requirements of 326 IAC 2-7-16.

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:

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

Page 2 of 2

Date/Time Emergency started:
Date/Time Emergency was corrected:
Was the facility being properly operated at the time of the emergency?    Y    N Describe:
Type of Pollutants Emitted: TSP, PM-10, SO <sub>2</sub> , VOC, NO <sub>x</sub> , 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 minimize 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:

Phone:

A certification is not required for this report.

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
 OFFICE OF AIR QUALITY  
 COMPLIANCE DATA SECTION**

**PART 70 OPERATING PERMIT  
 CHROMIUM ELECTROPLATING AND ANODIZING NESHAP  
 ONGOING COMPLIANCE STATUS REPORT**

Source Name: AK Steel Corporation, Rockport Works  
 Source Address: 6500 North U.S. 231, Rockport, Indiana, 47635  
 Mailing Address: Same  
 Part 70 Permit No.: T147-11043-00041  
 Tank ID #: The electrolytic chrome dip tank  
 Type of process: Hard Chrome  
 Monitoring Parameter: Pressure drop across the composite mesh pad system during tank operation  
 Parameter Value: ±1 inch of pressure drop value established during initial performance test, or within the range of compliant values for pressure drop established during multiple performance tests  
 Limits: Total chromium emissions may not exceed 0.0000066 grains per dscf pursuant to 40 CFR 63.342(c)(1)(i)

This form is to be used to report compliance for the Chromium Electroplating and Anodizing NESHAP only. The frequency for completing this report may be altered by IDEM, OAQ, Compliance Branch.

**Companies classified as a major source:**      ***Submit this report no later than 30 days after the end of the reporting period.***

This form consists of 2 pages

Page 1 of 2

BEGINNING AND ENDING DATES OF THE REPORTING PERIOD:
TOTAL OPERATING TIME OF THE TANK DURING THE REPORTING PERIOD:

<b>MAJOR AND AREA SOURCES: CHECK ONE</b>
<input type="checkbox"/> NO DEVIATIONS OF THE MONITORING PARAMETER ASSOCIATED WITH THIS TANK FROM THE COMPLIANT VALUE OR RANGE OF VALUES OCCURRED DURING THIS REPORTING PERIOD.
<input type="checkbox"/> THE MONITORING PARAMETER DEVIATED FROM THE COMPLIANT VALUE OR RANGE OF VALUES DURING THIS REPORTING PERIOD (THUS INDICATING THE EMISSION LIMITATION MAY HAVE BEEN EXCEEDED, WHICH COULD RESULT IN MORE FREQUENT REPORTING).

<b>AREA (I.E., NON-MAJOR) SOURCES OF HAP ONLY:</b> IF DEVIATIONS OCCURRED, LIST THE AMOUNT OF TANK OPERATING TIME EACH MONTH THAT MONITORING RECORDS SHOW THE MONITORING PARAMETER DEVIATED FROM THE COMPLIANT VALUE OR RANGE OF VALUES.			
JAN	APR	JUL	OCT
FEB	MAY	AUG	NOV
MAR	JUN	SEP	DEC

<b>HARD CHROME TANKS / MAXIMUM RECTIFIER CAPACITY LIMITED IN ACCORDANCE WITH 40 CFR 63.342(c)(2) ONLY:</b> LIST THE ACTUAL AMPERE-HOURS CONSUMED (BASED ON AN AMP-HR METER) BY THE INDIVIDUAL TANK.			
JAN	APR	JUL	OCT
FEB	MAY	AUG	NOV
MAR	JUN	SEP	DEC

## CHROMIUM ELECTROPLATING AND ANODIZING NESHAP ONGOING COMPLIANCE STATUS REPORT (CONTINUED)

ATTACH A SEPARATE PAGE IF NEEDED

Page 2 of 2

IF THE OPERATION AND MAINTENANCE PLAN REQUIRED BY 40 CFR 63.342 (f)(3) WAS NOT FOLLOWED, PROVIDE AN EXPLANATION OF THE REASONS FOR NOT FOLLOWING THE PLAN AND DESCRIBE THE ACTIONS TAKEN FOR THAT EVENT:

DESCRIBE ANY CHANGES IN TANKS, RECTIFIERS, CONTROL DEVICES, MONITORING, ETC. SINCE THE LAST STATUS REPORT:

ADDITIONAL COMMENTS:

**ALL SOURCES: CHECK ONE**

- I CERTIFY THAT THE WORK PRACTICE STANDARDS IN 40 CFR 63.342(f) WERE FOLLOWED IN ACCORDANCE WITH THE OPERATION AND MAINTENANCE PLAN ON FILE; AND, THAT THE INFORMATION CONTAINED IN THIS REPORT IS ACCURATE AND TRUE TO THE BEST OF MY KNOWLEDGE.
- THE WORK PRACTICE STANDARDS IN 40 CFR 63.342(f) WERE NOT FOLLOWED IN ACCORDANCE WITH THE OPERATION AND MAINTENANCE PLAN ON FILE, AS EXPLAINED ABOVE AND/OR ON ATTACHED.

Submitted by: \_\_\_\_\_  
Title/Position: \_\_\_\_\_  
Signature: \_\_\_\_\_  
Date: \_\_\_\_\_  
Phone: \_\_\_\_\_

Attach a signed certification to complete this report.

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
OFFICE OF AIR QUALITY  
COMPLIANCE DATA SECTION**

**PART 70 OPERATING PERMIT  
QUARTERLY DEVIATION AND COMPLIANCE MONITORING REPORT**

Source Name: AK Steel Corporation, Rockport Works  
Source Address: 6500 North U.S. 231, Rockport, Indiana, 47635  
Mailing Address: Same  
Part 70 Permit No.: T147-11043-00041

Months: \_\_\_\_\_ to \_\_\_\_\_ Year: \_\_\_\_\_

Page 1 of 2

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. Deviations that are required to be reported by an applicable requirement shall be reported according to the schedule stated in the applicable requirement and do 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".	
<input type="checkbox"/> NO DEVIATIONS OCCURRED THIS REPORTING PERIOD.	
<input type="checkbox"/> 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:	

<b>Permit Requirement (specify permit condition #)</b>	
<b>Date of Deviation:</b>	<b>Duration of Deviation:</b>
<b>Number of Deviations:</b>	
<b>Probable Cause of Deviation:</b>	
<b>Response Steps Taken:</b>	
<b>Permit Requirement (specify permit condition #)</b>	
<b>Date of Deviation:</b>	<b>Duration of Deviation:</b>
<b>Number of Deviations:</b>	
<b>Probable Cause of Deviation:</b>	
<b>Response Steps Taken:</b>	
<b>Permit Requirement (specify permit condition #)</b>	
<b>Date of Deviation:</b>	<b>Duration of Deviation:</b>
<b>Number of Deviations:</b>	
<b>Probable Cause of Deviation:</b>	
<b>Response Steps Taken:</b>	

Form Completed By:

Title/Position:

Date:

Phone:

Attach a signed certification to complete this report.

**Indiana Department of Environmental Management  
Office of Air Quality**

Addendum to the  
Technical Support Document for a PSD/Significant Source Modification and a Significant Permit  
Modification to a Part 70 Source

Source Name:	AK Steel Corporation - Rockport Works
Source Address:	6500 North U.S. 231, Rockport, Indiana 47635
County:	Spencer
SIC Code:	3312
Operation Permit No.:	T147-11043-00041
Operation Permit Issuance Date:	September 1, 2006
PSD/Significant Source Modification No.:	147-23585-00041
Significant Permit Modification No.:	147-23809-00041
Permit Reviewer:	Aida De Guzman

On March 8, 2007, the Office of Air Quality (OAQ) had a notice published in the Journal Democrat, Rockport, Indiana, stating that AK Steel Corporation - Rockport Works had applied for an application regarding Prevention of Significant Deterioration (PSD) Best Available Control Technology (BACT) for Nitrogen Oxides (NOx) emissions from the existing Continuous Pickling Line (CPL), and the incorporation of this BACT and other applicable requirements for the CPL as a significant permit modification to the Part 70 permit. The notice also stated that OAQ proposed to issue a permit for this operation and provided information on how the public could review the proposed permit and other documentation. Finally, the notice informed interested parties that there was a period of thirty (30) days to provide comments on whether or not these permits should be issued as proposed.

On March 12, 2007, Ms. Geneva King, an adjacent property owner submitted the following comment to the proposed PSD/significant source modification and significant permit modification:

**Comment:** AK Steel should stop emitting pollutants at their Rockport plant.

**Response:** The Clean Air Act, which was amended in 1990, requires the US EPA to set National Ambient Air Quality Standards (NAAQS) for wide-spread pollutants from numerous and diverse sources considered harmful to public health and the environment. The Clean Air Act established two types of national air quality standards. Primary standards set limits to protect public health, including the health of "sensitive" populations such as asthmatics, children and the elderly. Secondary standards set limits to protect public welfare, including protection against visibility impairment, damage to animals, crops, vegetation and buildings. Ozone, particulate matter, carbon monoxide, sulfur dioxide, nitrogen oxides and lead are the pollutants regulated under the NAAQS. Spencer County is classified as attainment for all these pollutants, which means that the air quality in Spencer County meets the standards determined to be protective of public health.

AK Steel has demonstrated in previous air modeling conducted as part of PSD permitting that their emissions will not cause or contribute to air pollution in violation of the ambient air quality standards.

The proposed permit will not change the air quality in the area, because AK Steel is not changing their current operations as a result of this modification.

There is no increase in emissions as a result of this permit modification. In addition, all emissions from this source are regulated by this permit at levels that will not constitute a threat to human health or the environment.

No changes have been made to the proposed permit as a result of this comment.

Upon further review, the OAQ has decided to make the following changes to the Part 70 permit (bolded language has been added, the language with a line through it has been deleted).

All references to IDEM, OAQ's mailing address have been revised as follows:

Indiana Department of Environmental Management  
Permits Branch, Office of Air Quality  
100 North Senate Avenue, **MC61-53**  
Indianapolis, Indiana 46204-2251;

Indiana Department of Environmental Management  
Technical Support and Modeling Section, Office of Air Quality  
100 North Senate Avenue, **MC61-50**  
Indianapolis, Indiana 46204-2251,

Indiana Department of Environmental Management  
Compliance Branch, Office of Air Quality  
100 North Senate Avenue, **MC61-53**  
Indianapolis, Indiana 46204-2251

and

Indiana Department of Environmental Management  
Compliance Data Section, Office of Air Quality  
100 North Senate Avenue, **MC61-53**  
Indianapolis, Indiana 46204-2251

**Indiana Department of Environmental Management  
Office of Air Management**

**Technical Support Document (TSD) for a Part 70 PSD/Significant Source  
Modification and Significant Permit Modification**

**Source Background and Description**

Source Name:	AK Steel Corporation, Rockport Works
Source Location:	6500 North U.S. 231, Rockport, Indiana 47635
County:	Spencer
SIC Code:	3312
Operation Permit No.:	T147-11043-00041
Operation Permit Issuance Date:	September 1, 2006
PSD/Significant Source Modification No.:	147-23585-00041
Significant Permit Modification No.:	147-23809-00041
Permit Reviewer:	Aida De Guzman

**Source Definition**

The following source determination has been made in the issued Part 70 permit T147-11043-00041:

This stationary source consists of three companies; one primary plant, and two on-site contractors. The primary plant is:

AK Steel Corporation (147-00041), a steel coil finishing operation located at 6500 North U.S. 231, Rockport, Indiana, 47635.

The two on-site contractors are:

- (a) MG Industries (147-00049), an industrial gas production operation located in the AK Steel plant, at 6500 North US Route 231, Rockport, Indiana 47635; and
- (b) Precision Strip, Inc. (147-00051), a slitting operation located in the AK Steel plant, at 6500 North US Route 231, Rockport, Indiana 47635.

These two contractors are considered one source with AK Steel, Rockport Works, due to location, and reliance of at least 50 percent of AK Steel's business. Therefore, the term "source" in the Part 70 documents refers to both contractors and AK Steel as one source.

One document for the Part 70 permit (T 147-11043-00041) has been created which includes AK Steel Rockport Works, MG Industries, and Precision Strip, Inc.

Although there is one Part 70 permit for these companies, each will have its own designated Responsible Official.

IDEM has determined that American Iron Oxide Company (AMROX) is not considered one source with AK Steel based on the review of several criteria. AMROX is not under common control of AK Steel, and each source has different SIC codes. AK Steel provides less than 50% of AMROX's permitted capacity (the second roaster has not yet been built), and in turn does not purchase iron oxide from them. Also, less than 50% percent of the HCL regenerated by AMROX is returned to AK Steel. As a result, these two plants are considered separate sources for the purposes of Part 70 and PSD review. Additional information was submitted by AMROX to support this information. Because AMROX is also a major source, they submitted a Part 70 application on October 21, 2002.

**Existing Approvals**

The source was issued a Part 70 Operating Permit T147-11043-00041 on September 1, 2006. The source has never been issued a modification to their Part 70 permit.

**County Attainment Status**

The source is located in Spencer County.

Pollutant	Status
PM10	Attainment
PM2.5	Attainment
SO <sub>2</sub>	Attainment
NO <sub>2</sub>	Attainment
8-hour Ozone	Attainment
CO	Attainment
Lead	Not determined

- (a) Volatile organic compounds (VOC) and nitrogen oxides (NOx) are regulated under the Clean Air Act (CAA) for the purposes of attaining and maintaining the National Ambient Air Quality Standards (NAAQS) for ozone. Therefore, VOC and NOx emissions are considered when evaluating the rule applicability relating to ozone. Spencer County has been designated as attainment or unclassifiable for ozone. Therefore, VOC and NOx emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.
- (b) Spencer County has been classified as attainment for PM2.5. U.S. EPA has not yet established the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 for PM2.5 emissions. Therefore, until the U.S.EPA adopts specific provisions for PSD review for PM2.5 emissions, it has directed states to regulate PM10 emissions as a surrogate for PM2.5 emissions.
- (c) Spencer County has been classified as attainment or unclassifiable for all other criteria pollutants. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.
- (d) Fugitive Emissions  
 Since this type of operation is one of the twenty-eight (28) listed source categories under 326 IAC 2-2, fugitive emissions are counted toward the determination of PSD applicability.

**Source Status**

The table below summarizes the potential to emit of the entire source, prior to the proposed modification, after consideration of all enforceable limits established in the effective permits:

POTENTIAL TO EMIT (TONS/YEAR)							
Facility	PM	PM-10	SO <sub>2</sub>	VOC	CO	NO <sub>x</sub>	HAPs
AK Steel*	252.0	252.0	3.03	63.0	208.0	346.0	less than 10 single, less than 25 combined
Precision Strip	2.76	2.76	-	2.6 lb/VOC per gallon, and less than 3 lbs/hour, or 15 lbs/day **	-	-	-
MG Industries	4.42	4.42	0.01	0.73	4.24	17.0	-

POTENTIAL TO EMIT (TONS/YEAR)							
Facility	PM	PM-10	SO <sub>2</sub>	VOC	CO	NO <sub>x</sub>	HAPs
Total Emissions	270.26	274.18	3.20	63.73**	220.7	383.3	less than 10 single, less than 25 combined

\* See BACT for specific units

\*\* The use of Precision Strip's back-up electrostatic oiler does not add VOC emissions to the Total VOC, since it operates only when AK Steel's oiler is off line.

- (a) This existing source is a major stationary source under 326 IAC 2-2 (Prevention of Significant Deterioration) because at least one regulated attainment pollutant is emitted at a rate of 100 tons per year or more, and it is one of the twenty-eight (28) listed source categories, as specified in 326 IAC 2-2-1(gg)(1).
- (b) This existing source is not a major source of HAPs, as defined in 40 CFR 63.41, because HAPs emissions are less than ten (10) tons per year for any single HAP and less than twenty-five (25) tons per year of a combination of HAPs. Therefore, this source is an area source under Section 112 of the Clean Air Act (CAA).

**Actual Emissions**

The following table shows the actual emissions from the source. This information reflects the 2005 OAQ emission data.

Pollutant	Actual Emissions (tons/year)
PM	43.0
PM10	43.0
SO <sub>2</sub>	1.0
VOC	19.0
CO	128.0
NO <sub>x</sub>	111.0

**Description of Proposed Project**

The Office of Air Quality (OAQ) has reviewed a modification application from AK Steel Corporation, Rockport Works relating to the proposed PSD/SSM Permit No. 147-23585-00041 to address the PSD NO<sub>x</sub> BACT, for the Continuous Pickling Line (CPL) which should have been performed in the issued PSD Permit No. 147-6713-00041. AK Steel Corporation failed to identify the CPL NO<sub>x</sub> emissions at the time this PSD Permit No. 147-6713-00041 was issued, so BACT was not evaluated. This issued permit only performed NO<sub>x</sub> BACT Analysis for the Annealing and Pickling Line (APL). This issued PSD permit established an emission limit of 175 parts per million by volume dry (ppmvd) and 9.66 pounds of NO<sub>x</sub> per hour (lbs/hr).

NO<sub>x</sub> is emitted from the following existing process lines:

- (a) One (1) Annealing Pickling Line (APL), which processes stainless grades of strip steel. The line uses a mixture of hydrofluoric and nitric acids. NO<sub>x</sub> is generated in the nitric acid pickling baths. The entire APL is equipped with a ventilation system which draws fumes from the line through multi-stage high efficiency scrubber to minimize NO<sub>x</sub> emissions.

At the entry end of the APL, steel is immersed in a bath of electrolytic sodium sulfate (ESS). Because the ESS process generates fumes (but not NO<sub>x</sub>), it is equipped with its own scrubber. The ESS scrubber is not intended to control NO<sub>x</sub>.

- (b) One (1) Continuous Pickling Line (CPL), which processes both carbon and stainless grades, which is unique in the industry.

Hydrochloric acid (HCl) is the primary pickling acid used in the CPL, when carbon steel grades are processed. The CPL is equipped with a ventilation system and a two-stage wet scrubber designed to control HCl emissions from the entire line.

When the CPL is used for pickling stainless grades of steel, nitric acid is added to two of the rinse baths of the process. NOx is generated in these baths when stainless grades are pickled. Other than the rinse baths, nitric acid is not used in any other sections of the CPL.

Because, the CPL scrubber is not designed for NOx control, the rinse sections of the CPL are equipped with an auxiliary ventilation system to divert fumes from the rinse baths away from the CPL scrubber. This auxiliary ventilation system is operated only when stainless grades are processed in the CPL. Through a series of dampers and controls, the diverted NOx fumes are drawn through a fan (the booster/crossover fan) which discharges into the same NOx scrubber which serves the APL.

#### **Emission Calculations**

The PTE remains unchanged as a result of this PSD/Significant Source Modification.

#### **Enforcement Issue**

IDEM is aware that the CPL was not evaluated for NOx Best Available Control Technology, pursuant to 326 IAC 2-2-3, when the APL was permitted in PSD Permit No. 147-6713-00041. IDEM is reviewing this matter and will take the appropriate action. This proposed approval is intended to satisfy the requirements of the PSD permitting requirements.

#### **Permit Level Determination – Part 70**

- (a) This modification is subject to 326 IAC 2-2, PSD, and therefore, is subject to Significant Source Modification under 326 IAC 2-7-10.5(f).
- (b) This modification is subject to 326 IAC 2-7-12(d), Significant Permit Modification, since it involves incorporating applicable requirements determined in PSD/Significant Source Modification No. 147-23585-00041, that do not qualify as minor permit modification or as an administrative amendment.

#### **Federal Rule Applicability Determination**

This modification will not affect the federal rules already determined for the source, and there are no additional federal rules that will be applicable to the source as a result of this source modification.

#### **State Rule Applicability Determination**

- (a) 326 IAC 2-2 (Prevention of Significant Deterioration (PSD)) and 40 CFR 52.21:  
This rule is applicable to address the PSD NOx BACT, for the Continuous Pickling Line (CPL) which should have been performed in PSD Permit No. 147-6713-00041, issued on February 13, 1997.
- (b) 326 IAC 2-2-3 (PSD Rule: Best Available Control Technology (BACT)):  
Pursuant to 326 IAC 2-2-3(a)(3), a major PSD modification shall apply Best Available Control Technology (BACT) for each pollutant subject to regulation under the provisions of the Clean Air Act for which said modification would result in a significant net emissions increase at the source. This requirement applies to each proposed emissions unit at which a net emissions increase of the pollutant would occur.

The source went through NOx PSD review in PSD Permit No. 147-6713-00041 and BACT analysis was performed for the APL. However, the CPL NOx was not evaluated for BACT, although it is controlled by the APL scrubber.

IDEM, OAQ has performed a BACT analysis, based on the BACT Analysis for the CPL, submitted by AK Steel, which was based on the Draft "Top Down Approach: BACT Guidance" by USEPA, Office of Air Quality Planning Standards, March 15, 1990. See Appendix A for the detailed BACT

Analysis.

(c) 326 IAC 2-2-4 (PSD Rule: Air Quality Analysis)

Section (a) of this rule states that “any application for a permit under the provisions of this rule shall contain an analysis of ambient air quality in the area that the major stationary PSD source or major PSD modification would affect for each of the following pollutant:

- (1) For a modification, each regulated NSR pollutant for which the modification would result in a significant emission increase.

The allowable NOx PTE from the APL which includes the allowable NOx emissions from the CPL remains unchanged, and air modeling done for the APL/CPL scrubber stack as required in the original PSD/SSM 147-6713-00041, was based on this allowable PTE, therefore, nothing has changed to warrant another air modeling.

(d) 326 2-2-5 (PSD Rule: Air Quality Impact Requirements)

Section (a) of this rule states that the owner or operator of the proposed major modification shall demonstrate that allowable emissions increases in conjunction with all applicable emissions increases or reductions (including secondary emissions) will not cause or contribute to air pollution in violation of any:

- (1) ambient air quality standard, as designated in 326 IAC 1-3, in any air quality control region; or
- (2) applicable maximum allowable increase over the baseline concentration in any area as described in section 6 of this rule.

Section (e) of this rule states that an air quality impact analysis required by this section shall be conducted in accordance with the following provisions:

- (1) Any estimates of ambient air concentrations used in the demonstration processes required shall be based upon the applicable air quality models, data bases, and other requirements specified in 40 CFR Part 51, Appendix W (Requirements for Preparation, Adoption, and Submittal of Implementation Plans, Guideline on Air Quality Models).
- (2) Where an air quality impact model specified in the guidelines cited in (1) is inappropriate, a model may be modified or another model substituted provided that all applicable guidelines are satisfied.
- (3) Modifications or substitution of any model may only be done in accordance with guideline documents and with written approval from U.S. EPA and shall be subject to public comment procedures set forth in 326 IAC 2-1.1-6.

This modification which only involves a NOx PSD BACT analysis for the existing permitted CPL will not result in NOx incremental consumption that will cause significant degradation of the air quality in the area, because NOx allowable PTE will remain the same.

(e) 326 IAC 2-2-12 (PSD Rule: Permit Rescission)

The PSD permit or the significant source modification permit shall remain in effect unless it is rescinded, modified, revoked or expires.

**Changes to the Part 70 Permit**

The changes listed below have been made to the Part 70 Operating Permit No. 147-11043-00041, issued on September 1, 2006. Deleted language appears as strikethroughs and new language appears in **bold**:

*Upon further review, IDEM, OAQ has determined that it is not necessary to list the Responsible Official in the permit. Section A.1 has been modified as follows:*

**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 a stationary steel coil finishing plant with ancillary equipment.

Responsible Officials: ~~General Manager of AK Steel, Rockport Works;  
Manager of Precision Strip, Inc., Rockport Works; and  
Vice President of Operations, Air Liquide Industrial, U.S.L.P.~~

*SECTION B.20 Source Modification Requirement [326 IAC 2-7-10.5] has been modified to include the provisions for modification to an existing major source.*

**B.20 Source Modification Requirement [326 IAC 2-7-10.5]**

(a) A modification, construction, or reconstruction is governed by the requirements of 326 IAC 2 and 326 IAC 2-7-10.5.

(b) **Any modification at an existing major source is governed by the requirements of 326 IAC 2-2.**

*The condition title in C.18 has been corrected due to a typographical error.*

**C.18 Response to Excursions and ~~or~~ Exceedances 326 IAC 2-7-5] [326 IAC 2-7-6]**

(a) Upon detecting an excursion or exceedance, the Permittee shall restore operation of the emissions unit (including any control device and associated capture system) to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions.

*It has been decided that it is best to have Condition C.8 Operation of Equipment under compliance determination in the specific D conditions, and remove C.8.*

**C.8 ~~Operation of Equipment [326 IAC 2-7-6(6)]~~**

~~Except as otherwise provided by statute, 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.~~

*Conditions C.22 and C.23, now C.21 and C.22, respectively, have been modified to reflect the changes made to rules, 326 IAC 2-2 and 326 IAC 2-3.*

**C.22 21 General Record Keeping Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-6] [326 IAC 2-2] [326 IAC 2-3]**

(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 within ninety (90) days of permit issuance.

(c) ~~If there is a reasonable possibility that a "project" (as defined in 326 IAC 2-2-1 (qq) and/or 326 IAC 2-3-1(II) at an existing emissions unit, other than projects at a Clean Unit, which is not part of a "major modification" (as defined in 326 IAC 2-2-1 (ee) and/or 326 IAC 2-3-1 (z) may result in significant emissions increase and the Permittee elects to utilize the "projected actual emissions" (as defined in 326 IAC 2-2-1 (rr) and/or 326 IAC 2-3-1 (mm), the Permittee shall comply with following:~~

(1) Before beginning actual construction of the "project" (as defined in 326 IAC 2-2-1 (qq)

**and/or 326 IAC 2-3-1 (II)** at an existing emissions unit, document and maintain the following records:

- (A) A description of the project.
  - (B) Identification of any emissions 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/or 326 IAC 2-3-1(mm)(2)(A)(3), 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 emissions unit identified in (1)(B) above; and
- (3) Calculate and maintain a record of the annual emissions, in tons per year on a calendar 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 of or the potential to emit that regulated NSR pollutant at the emissions unit.

C.-23 22General Reporting Requirements [326 IAC 2-7-5(3)(C)] [326 IAC 2-1.1-11] [326 IAC 2-2] [326 IAC 2-3]

- (a) The Permittee 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 and reports required by conditions in Section D 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 46204-2251
- (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 required in Section D of this permit shall be submitted within thirty (30) days of the end of the reporting period. All reports do require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).
- (e) 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) **and/or 326 IAC 2-3-1 (II)**) at an existing emissions 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) **and/or 326 IAC 2-3-1 (qq)** for that regulated NSR 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).
- (f) The report for project at an existing emissions 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) and (3) 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) and/or 2-3-2(c)(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 46204-2251

- (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 a request for inspection by IDEM, OAQ. The general public may request this information from the IDEM, OAQ under 326 IAC 17.1.

## SECTION D.1

## FACILITY OPERATION CONDITIONS

### Facility Description [326 IAC 2-7-5(15)]:

- (a) A Continuous Anneal and Pickling Line (APL) with a maximum normal capacity of 130 tons per hour consisting of:
  - (1) one (1) flattener,
  - (2) one (1) shear,
  - (3) one (1) laser welder,
  - (4) one (1) leveller shear,
  - (5) one (1) alkaline cleaner section exhausting through a wet scrubber system to Stack S06,
  - (6) one (1) 110.0 MMBtu/hr natural gas-fired annealing furnace section equipped with low-NOx burners with integral exhaust gas recirculation (or equivalent) exhausting to Stack S07A,
  - (7) one (1) 55.0 MMBtu/hr natural gas-fired annealing furnace section equipped with low-NOx burners with integral exhaust gas recirculation (or equivalent) exhausting to Stack S07B,
  - (8) one (1) air quench station consisting of 10 sections exhausting through a baghouse to Stack S08,
  - (9) one (1) water quench section,
  - (10) one (1) cooling tower with 1650 gallons per minute recirculating capacity,
  - (11) one (1) enclosed shot blasting chamber exhausting through a baghouse to Stack S05,
  - (12) electrolytic pickle and rinse tanks exhausting through a wet scrubber system to Stack S09A,
  - (13) mixed acids pickle and rinse tanks exhausting through a multi-stage oxidation/reduction and acid neutralization scrubbing system to Stack S09B,
  - (14) one (1) steam heated strip dryer,
  - (15) skin pass temper mill and roll cleaning dust collection system exhausting through individual baghouses to Stack S09C, and
  - (16) one (1) tension/leveller and side trimmer.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

**Emission Limitations and Standards [326 IAC 2-7-5(1)]**

*Condition D.1.2(c) has been separated from D.1.2, and numbered as Condition D.1.3, since a PSD BACT for the CPL in SECTION D.2, which affected the APL in this SECTION D.1 has been established. Subsequent conditions have been re-numbered accordingly. Changes are as follows:*

**D.1.2 Nitrogen Oxides (NOx) Best Available Control Technology (BACT) [326 IAC 2-2]**

Pursuant to Construction Permit 147-6713-00041, issued February 13, 1997, operation condition 21, and A147-11471-00041, issued April 18, 2002, and 326 IAC 2-2-3 (PSD BACT), the processes of the Continuous Annealing and Pickling Line shall be limited as follows:

- (a) The 110.0 MMBtu per hour annealing furnace section No.1 and the 55.0 MMBtu per hour annealing furnace section No.2 shall each use only natural gas and NOx emissions shall be controlled by ultra low-NOx burners with integral exhaust gas recirculation (or its equivalent). Pursuant to Significant Source Modification 147-19502-00041, issued August 5, 2005, nitrogen oxide emissions from the furnaces shall not exceed the following limits:

Furnace	Stainless Steel Type	lb/MMBtu	lb/hr
110 MMBtu/hr (Section No.1)	400 Cold Roll	0.08	8.0
	300 Cold Roll	0.087	9.6
	300 Hot Roll	0.04	4.4
55 MMBtu/hr (Section No.2)	400 Cold Roll	0.14	7.7
	300 Cold Roll	0.11	6.1
	300 Hot Roll	0.04	2.2

- (b) The Permittee shall employ an operational practice called "smoke and anneal" for certain grades of stainless steel in the 110.0 MMBtu per hour annealing furnace section No.1 and the 55.0 MMBtu per hour annealing furnace section No.2. This operational practice shall be limited to no more than 48 days or 1152 hours per 12 consecutive month period. The outlet nitrogen oxide loading shall not exceed 0.080 pounds per MMBtu during this operation. The combined nitrogen oxide emissions from the two sections of the annealing furnace shall not exceed 13.2 pounds per hour and 7.60 tons per year for this operation.
- (c) ~~The mixed acid pickle, and rinse tanks shall be enclosed and maintained under negative pressure. The nitrogen oxide generated from this process shall be controlled by a wet scrubber system (S09B). The outlet nitrogen oxide loading shall not exceed 175 ppmvd and the nitrogen oxide emissions shall not exceed 9.66 pounds per hour.~~

**D.1.3 Nitrogen Oxides (NOx) Best Available Control Technology (BACT) [326 IAC 2-2]**

- (a) The mixed acid pickle, and rinse tanks for the APL shall be enclosed and maintained under negative pressure.
- (b) Pursuant to 326 IAC 2-2-3 (PSD BACT), the APL and the CPL in SECTION D.2 which are both controlled by the wet scrubber system (S09B) shall be limited to a NOx concentration of 175 parts per million by volume dry (ppmvd) measured at the outlet of the scrubber.
- (c) The APL NOx emissions combined with the NOx emissions of the CPL in SECTION D.2, shall be limited to 9.66 pounds per hour after control.

**Compliance Determination Requirements**

*NOx stack testing has been performed on January 30, 2006, and AK Steel has demonstrated compliance with the combined NOx limit of 9.66 lbs/hr for the APL and CPL. This condition has been modified by separating the NOx testing requirements from the PM and PM10 testing.*

**D.1.3.4 Testing Requirements [326 IAC 2-7-6(1),(6)] [326 IAC 2-1.1-11]**

- (a) Within five years after the most recent stack test or 36 months after issuance of this Part 70 permit, whichever is later, in order to demonstrate compliance with Conditions D.1.1 and D.1.2, the Permittee

shall perform PM and PM-10 testing for S06, S08, S09A, S09B, and S09C, and NOx testing for S07A, S07B, and S09B utilizing methods as approved by the Commissioner. This test shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. PM-10 includes filterable and condensable components. Testing shall be conducted in accordance with Section C- Performance Testing.

- (b) **Within five years after the most recent stack test, in order to demonstrate compliance with Conditions D.1.2 and D.1.3, the Permittee shall perform NOx testing for S07A, S07B, S09A, and S09B, utilizing methods as approved by the Commissioner. Testing of the combined NOx emissions from the scrubber, identified as S09B, controlling the APL and CPL in SECTION D.2, and scrubbers S02 and S09A was performed on January 30, 2006. This test shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. Testing shall be conducted in accordance with Section C- Performance Testing.**

*The rule cite in Condition D.1.4, now D.1.5, has been deleted, since this condition is not a PSD condition, and the issued permit referenced in this condition has been deleted, since its original requirements have been changed.*

#### D.1.4.5 Control Equipment [326 IAC 2-2]

- (a) Pursuant to Construction Permit 147-6713-00041, issued February 13, 1997, operation condition 10, and 326 IAC 2-2 (PSD), upon startup, the ~~b~~Baghouses (S05, S08, S09C), shall be operated at all times and controlling PM when their respective emission units (**shotblasting chamber, air quench station, electrolytic pickle, skin pass temper, and roll cleaning dust collection system**) are in operation.
- (b) Pursuant to Construction Permit 147-6713-00041, issued February 13, 1997, operation condition 11, and 326 IAC 2-2 (PSD), upon startup, the ~~s~~Scrubbers (S06, S09A, S09B), shall be operated at all times when their respective emission units (**alkaline cleaner, electrolytic pickle and rinse tanks, and mixed acids pickle and rinse tanks**) are in operation.

*Condition D.1.5, now D.1.6 has been corrected for typographical errors, and the PSD rule cite has been deleted from this condition. Additionally, the issued permit referenced in this condition has been deleted, since its original requirements have been changed.*

#### D.1.5.6 Visible Emissions Notations

- (a) Pursuant to Construction Permit 147-6713-00041, issued February 13, 1997, operation condition 13, and Amendment 147-11471-00041, issued April 18, 2002, and 326 IAC 2-2 (PSD) ~~v~~Visible emission notations of stack exhausts (S05, S06, S08, S09A, S09B, S09C) shall be performed. These notations shall be taken once per day during normal daylight operations when exhausting to the atmosphere. A trained employee shall record whether emissions are normal or abnormal.
- (b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.
- (c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.
- (d) A trained employee, including trained personnel under contract with the source, is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.
- (e) If abnormal emissions are observed, the Permittee shall take reasonable response steps in accordance with Section C - Response to Excursions or Exceedances. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances, shall be considered a violation of **deviation from this permit**.

*Condition D.1.6, now D.1.7 has been updated, typographical errors have been corrected, and the PSD rule cite has been deleted, since this condition is not a PSD requirement. Additionally, the issued permit referenced in this condition has been deleted, since its original requirements have been changed.*

#### D.1.6 7 Parametric Monitoring for Baghouses

- (a) Pursuant to Construction Permit 147-6713-00041, issued February 13, 1997, operation condition 10, and 326 IAC 2-2 (PSD), the Permittee shall record the total static pressure drop across the baghouses (S05, S08, S09C) used in conjunction with the APL at least once per day when the process is in operation. When for any one reading, the pressure drop across the baghouse is outside the normal range of 0.3 and 8.0 inches of water or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C- Response to Excursions and or Exceedances. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C - Response to Excursions and or Exceedances, shall be considered a violation of **deviation from** this permit.
- (b) The instrument used for determining the pressure shall comply with Section C - Instrument Specifications, of this permit, shall be subject to approval by IDEM, OAQ, and shall be calibrated at least once every six (6) months.
- (b) The gauge employed to take the pressure drop across the baghouses shall have a scale such that the expected normal reading shall be no less than 20 percent of full scale and be accurate within  $\pm 2\%$  of full scale reading for S05 and S09C, and within  $\pm 0.25\%$  (or  $\pm 5$  digits at 22 degrees Celsius) for S08. The instrument shall be quality assured and maintained as specified by the vendor.

*Condition D.1.7 for control device inspection has been deleted from the permit, because it is not a PSD requirement and IDEM has determined that it is the Permittee that is in the best position to determine the appropriate frequency of control device inspections and the details regarding which components of the control should be inspected.*

#### D.1.7 Baghouse Inspections

Pursuant to Construction Permit 147-6713-00041, issued February 13, 1997, operation condition 10, and 326 IAC 2-2 (PSD), an inspection shall be performed each calendar quarter for the APL baghouses (S05, S08, S09C). Inspections required by this condition shall not be performed in consecutive months. Defective bags shall be replaced.

*The PSD rule cite in Condition D.1.8 has been deleted, since this condition is not a PSD requirement, and the referenced issued permit in this condition has been deleted, since its original requirements have been changed.*

#### D.1.8 Broken or Failed Bag Detection

Pursuant to Construction Permit 147-6713-00041, issued February 13, 1997, operation condition 10(e), and 326 IAC 2-2 (PSD), in the event that a bag's bag failure has been observed in a multi-compartment baghouse, if operations will continue for ten (10) days or more after the failure is observed before the failed units will be repaired or replaced, the Permittee shall promptly notify the IDEM, OAQ of the expected date the failed units will be repaired or replaced. The notification shall also include the status of the applicable compliance monitoring parameters with respect to normal, and the results of any response actions taken up to the time of notification.

- (a) The process associated with the affected compartments will be shut down immediately until the failed units have been repaired or replaced.
- (b) Based upon the findings of the inspection, any additional corrective actions will be devised within eight (8) hours of discovery and will include a timetable for completion.

*The PSD rule cite in Condition D.1.9 has been deleted, since this condition is not a PSD requirement, and the referenced issued permit in this condition has been deleted, since its original requirements have been changed. Additionally, typographical errors have been corrected, and the parametric ranges established from the stack test done on January 30, 2006 have been added:*

**D.1.9 Parametric Monitoring for Scrubbers**

- (a) Pursuant to Permit 147-11471-00041, issued April 18, 2002, and 326 IAC 2-2 (PSD), t The Permittee shall record the pH of the scrubbing liquid (if applicable), pressure drop and scrubbing liquid flow rate of the scrubbers (S06, S09A, S09B) used in conjunction with the APL at least once per day when the process is in operation. When for any one reading, **each parametric range or the minimum operating parameter for the scrubbers in below table** pressure drop across a scrubber, the flowrate, or the pH of the scrubbing liquid is outside its normal range, or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C-Response to Excursions and or Exceedances. A reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C - Response to Excursions and or Exceedances, shall be considered a violation of **deviation from** this permit.

Scrubber ID	Pressure Drop Range across the Scrubber (inches)	Minimum Flow Rate of Scrubbing Liquor (gallons/minute)	pH of Scrubbing Liquor
APL/CPL Mixed Scrubber (S09B)	0.25 - 5.0	250	8.0 - 12.5
Electrolytic Pickle & Rinse Tanks Scrubber (S09A)	0.5 - 6.0	250	5.5 - 9.5
Alkaline Cleaner Scrubber (S06)	1-0 - 8.0	300	-

- (b) The instruments used for determining the pH of the scrubbing liquid (if applicable), pressure drop, and scrubbing liquid flow rate at the inlet of the control device shall be subject to approval by IDEM, OAQ, and shall be calibrated at least once every six (6) months.
- (b) ~~The gauge employed to take the pressure drop across the scrubbers or any part of the facility shall have a scale such that the expected normal reading shall be no less than 20 percent of full scale and be accurate within ±0.25% (or ±5 digits at 22 degrees Celsius) for S06, S09A, and S09B. The instrument shall be quality assured and maintained as specified by the vendor.~~

*Condition D.1.10 for scrubber inspection has been deleted from the permit, because it is not a PSD requirement and IDEM has determined that it is the Permittee who is in the best position to determine the appropriate frequency of control device inspections and the details regarding which components of the control should be inspected.*

**D.1.10 Scrubber Inspections**

~~Pursuant to Construction Permit 147-6713-00041, issued February 13, 1997, operation condition 11, and 326 IAC 2-2 (PSD), an inspection shall be performed each calendar quarter of the scrubbers (S06, S09A, S09B). Inspections required by this condition shall not be performed in consecutive months. Defective scrubber components shall be replaced.~~

*The PSD rule cite in Condition D.1.11, now D.1.10, has been deleted, since this condition is not a PSD requirement, and the referenced issued permit in this condition has been deleted, since its original requirements have been changed.*

**D.1.14 10 Scrubber Failure**

Pursuant to Construction Permit 147-6713-00041, issued February 13, 1997, operation condition 11, and 326 IAC 2-2 (PSD), i In the event that failure of a scrubber has been observed, **if operations will continue for ten (10) days or more after the failure is observed before the failed system will be repaired or replaced, the Permittee shall promptly notify the IDEM, OAQ of the expected date the failed system will be repaired or replaced. The notification shall also include the status of the applicable compliance monitoring parameters with respect to normal, and the results of any response actions taken up to the time of notification.**

- ~~(a) The process associated with the affected unit will be shut down immediately until the failed unit has been repaired or replaced.~~
- ~~(b) Based upon the findings of the inspection, or any additional corrective actions will be devised within eight (8) hours of discovery and will include a timetable for completion.~~

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

*Condition D.1.12, now D.1.11 has been modified to clarify this condition.*

#### D.1.12 11 Record Keeping Requirements

- (a) To document compliance with Condition D.1.2(b), the Permittee shall maintain hourly records of the "smoke and anneal" operational practice.
- (b) To document compliance with Condition D.1.5 6, the Permittee shall maintain records of the daily visible emission notations for stacks S05, S06, S08, S09A, S09B, and S09C.
- (e) To document compliance with Condition D.1.6 7, the Permittee shall maintain once per day records of the total static pressure drop across the baghouses (S05, S08, S09C), during normal operation when exhausting to the atmosphere.
- ~~(d) Pursuant to Construction Permit 147-6713-00041, issued February 13, 1997, operation condition 10, and 326 IAC 2-2 (PSD), a record shall be kept of the results of the inspections and the number of bags replaced to document compliance with Condition D.1.7.~~

**To document compliance with Condition D.1.9, the Permittee shall maintain once per day records of the pressure drop across the scrubber (S06, S09A, S09B).**

- ~~(d) Pursuant to Construction Permit 147-6713-00041, issued February 13, 1997, operation condition 11, and 326 IAC 2-2 (PSD), to show compliance with conditions D.1.9, D.1.10, and D.1.11, records shall be kept and made available upon request to the Office of Air Quality (OAQ).~~
- (e) **To document compliance with Condition D.1.9, the Permittee shall maintain once per day records of the pH, and flow rate of the scrubbing liquor from scrubbers (S06, S09A, S09B).**
- (e) (f) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit. Records necessary to demonstrate compliance shall be available within 30 days of the end of each compliance period.

## SECTION D.2

## FACILITY OPERATION CONDITIONS

### Facility Description [326 IAC 2-7-5(15)]:

- (b) Continuous Pickling Line (CPL) with a maximum capacity of 476 tons per hour consisting of:
  - (1) one (1) strip leveller and one (1) mechanical scale breaker exhausting through a baghouse to Stack S01,
  - (2) one (1) laser welder and one (1) tension leveller,
  - (3) three (3) HCl acid pickle and rinse tanks;
    - (A) when processing carbon steel only: three (3) HCl acid pickle and rinse tanks exhausting through a wet scrubber system to Stack S02;
    - (B) when processing stainless steels only: three (3) HCl acid pickle tanks exhausting through a wet scrubber system to Stack S02; mixed acid and rinse tanks exhausting through a wet scrubber system to Stack S02, through the electrolytic pickle scrubber system on the APL to Stack S09A, and exhausting through the multi-stage oxidation/reduction and acid neutralization scrubbing system on the APL at Stack S09B.

- (4) one (1) steam heated pickle dryer,
- (5) one (1) shear/trimmer, and
- (6) one (1) CPL electrostatic oiler.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

#### Emission Limitations and Standards [326 IAC 2-7-5(1)]

*The following NOx PSD BACT condition has been added in the permit. Subsequent conditions have been re-numbered accordingly:*

#### D.2.2 Nitrogen Oxides (NOx) Best Available Control Technology (BACT) [326 IAC 2-2]

- (a) The mixed acid pickle, and rinse tanks for the CPL shall be enclosed and maintained under negative pressure.
- (b) Pursuant to 326 IAC 2-2-3 (PSD BACT), the CPL and the APL in SECTION D.1 which are both controlled by the wet scrubber system (S09B) shall be limited to a NOx concentration of 175 ppmvd measured at the outlet of the scrubber.
- (c) The CPL NOx emissions combined with the NOx emissions of the APL in SECTION D.1, shall be limited to 9.66 pounds per hour after control.

#### Compliance Determination Requirements

*Condition D.2.3, now D.2.4 has been modified to add section (b) for NOx testing.*

#### D.2.3 4 Testing Requirements [326 IAC 2-7-6(1), (6)] [326 IAC 2-1.1-11]

- (a) Within five years after the most recent stack test or 36 months after issuance of this Part 70 permit, whichever is later, in order to demonstrate compliance with Condition D.2.1, the Permittee shall perform PM and PM-10 testing for S01 and S02 utilizing methods as approved by the Commissioner. This test shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. PM-10 includes filterable and condensable components. Testing shall be conducted in accordance with Section C- Performance Testing.
- (b) Within five years after the most recent stack test, in order to demonstrate compliance with Condition D.2.2, the Permittee shall perform NOx testing for S02, S09A, and S09B, utilizing methods as approved by the Commissioner. Testing of the combined NOx emissions from the scrubber, identified as S09B, controlling the CPL and APL in SECTION D.1, and scrubbers S02 and S09A was performed on January 30, 2006. This test shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. Testing shall be conducted in accordance with Section C- Performance Testing.

*The PSD rule cite in Condition D.2.4, now D.2.5 has been deleted, since this condition is not a PSD requirement, and the referenced issued permit has been deleted, since its original requirements have been changed.*

#### D.2.4 5 Particulate Matter (PM) Control [326 IAC 2-2]

- (a) Pursuant to Construction Permit 147-6713-00041, issued February 13, 1997, operation condition 10, and 326 IAC 2-2 (PSD), upon startup, bBaghouse (S01) shall be operated at all times and controlling PM when its associated facility the strip leveler and mechanical scale breaker is are in operation.
- (b) Pursuant to Construction Permit 147-6713-00041, issued February 13, 1997, operation condition 11, and 326 IAC 2-2 (PSD), upon startup, sScrubber S02 shall be operated at all times and controlling PM when its associated facility the three (3) HCl acid pickle and rinse tanks is are in operation.

*Condition D.2.5, now D.2.6 has been corrected for typographical errors, and the PSD rule cite has been deleted since this condition is not a PSD requirement. Additionally, the referenced issued permit has been deleted, since its original requirements have been changed.*

#### D.2.5 6 Visible Emissions Notations

- (a) Pursuant to Construction Permit 147-6713-00041, issued February 13, 1997, operation condition 13, and 326 IAC 2-2 (PSD), ~~v~~Visible emission notations of stacks S01 and S02 shall be performed. These notations shall be taken once per day during normal daylight operations when exhausting to the atmosphere. A trained employee shall record whether emissions are normal or abnormal.
- (b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.
- (c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.
- (d) A trained employee, including trained personnel under contract with the source, is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.
- (e) If abnormal emissions are observed, the Permittee shall take reasonable response steps in accordance with Section C - Response to Excursions or Exceedances. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances, shall be considered a violation of **deviation from** this permit.

*The PSD rule cite in Condition D.2.6, now D.2.7 has been deleted, since this condition is not a PSD requirement, typographical errors have been corrected, and the referenced issued permit have been deleted, since its original requirements have been changed.*

#### D.2.6 7 Parametric Monitoring for Baghouse

- (a) Pursuant to Construction Permit 147-6713-00041, issued February 13, 1997, operation condition 10, and 326 IAC 2-2 (PSD), ~~t~~The Permittee shall record the total static pressure drop across the baghouse (S01) used in conjunction with the CPL at least once per day when the process is in operation. When for any one reading, the pressure drop across the baghouse is outside the normal range of 1.5 and 5.0 inches of water or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C- Response to Excursions and ~~or~~ Exceedances. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C - Response to Excursions and ~~or~~ Exceedances, shall be considered a violation of **deviation from** this permit.
- (b) The instrument used for determining the pressure shall comply with Section C - Pressure Gauge and Other Instrument Specifications, of this permit, shall be subject to approval by IDEM, OAQ, and shall be calibrated at least once every six (6) months.
- (~~b~~) ~~The gauge employed to take the pressure drop across the baghouse, or any part of the facility shall have a scale such that the expected normal reading shall be no less than 20 percent of full scale and be accurate within ±2% of full scale reading. The instrument shall be quality assured and maintained as specified by the vendor.~~

*Condition D.2.7, for control device inspection has been deleted from the permit, because it is not a PSD requirement and IDEM has determined that it is the Permittee who is in the best position to determine the appropriate frequency of control device inspections and the details regarding which components of the control should be inspected.*

#### D.2.7 Baghouse Inspections

~~Pursuant to Construction Permit 147-6713-00041, issued February 13, 1997, operation condition 10, and 326 IAC 2-2 (PSD), an inspection shall be performed each calendar quarter for the CPL baghouse (S01). Inspections required by this condition shall not be performed in consecutive months. Defective bags shall be replaced.~~

*The PSD rule cite in Condition D.2.8 has been deleted, since this condition is not a PSD requirement, and the referenced issued permit has been deleted, since its original requirements have been changed,*

**D.2.8 Broken or Failed Bag Detection**

~~Pursuant to Construction Permit 147-6713-00041, issued February 13, 1997, operation condition 10(e), and 326 IAC 2-2 (PSD), i~~ **In the event that a bag's bag failure has been is observed in a multi-compartment baghouse, if operations will continue for ten (10) days or more after the failure is observed before the failed units will be repaired or replaced, the Permittee shall promptly notify the IDEM, OAQ of the expected date the failed units will be repaired or replaced. The notification shall also include the status of the applicable compliance monitoring parameters with respect to normal, and the results of any response actions taken up to the time of notification**

- ~~(a) — The process associated with the affected compartments will be shut down immediately until the failed units have been repaired or replaced.~~
- ~~(b) — Based upon the findings of the inspection, any additional corrective actions will be devised within eight (8) hours of discovery and will include a timetable for completion.~~

*The typographical errors in D 2.9 have been corrected, and the PSD rule cite has been deleted since this condition is not a PSD requirement.*

*The APL scrubber in SECTION D.1 will be identified in Condition D.2.9, since it is also controlling the CPL in this SECTION D.2; in addition the parametric ranges established from the stack test done on January 30, 2006 have been added in this condition:*

**D.2.9 Parametric Monitoring for Scrubber**

- (a) ~~Pursuant to A147-11471-00041, issued April 18, 2002, and 326 IAC 2-2 (PSD t~~ **The Permittee shall record the pH of the scrubbing liquid, pressure drop and scrubbing liquid flow rate of scrubbers S02, S09A, and S09B at least once per day when the process is in operation. When for any one reading, each parametric range or the minimum operating parameter for the scrubbers in below table the pressure drop across the scrubber, or the pH of the scrubbing liquid is outside its normal range, or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C- Response to Excursions and or Exceedances. A reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C - Response to Excursions and or Exceedances, shall be considered a violation of deviation from this permit.**

Scrubber ID	Pressure Drop Range across the Scrubber (inches)	Minimum Flow Rate of Scrubbing Liquor (gallons/minute)	pH of Scrubbing Liquor
<b>APL/CPL Mixed Scrubber (S09B)</b>	<b>0.25 - 5.0</b>	<b>250</b>	<b>8.0 - 12.5</b>
<b>Electrolytic Pickle &amp; Rinse Tanks Scrubber (S09A)</b>	<b>0.5 - 6.0</b>	<b>250</b>	<b>5.5 - 9.5</b>
<b>HCL Scrubber (S02)</b>	<b>0.5 - 5.5</b>	<b>550</b>	<b>-</b>

- (b) ~~The instruments used for determining the pH of the scrubbing liquid, pressure drop, and scrubbing liquid flow rate at the inlet of the control device shall be subject to approval by IDEM, OAQ, and shall be calibrated at least once every six (6) months.~~
- (b) ~~The gauge employed to take the pressure drop across the scrubbers shall have a scale such that the expected normal reading shall be no less than 20 percent of full scale and be accurate within 0.25% (or ±5 digits at 22 degrees Celsius) for S02. The instrument shall be quality assured and maintained as specified by the vendor.~~

*Condition D.2.10 for control device inspection has been deleted from the permit, because it is not a PSD requirement and IDEM has determined that it is the Permittee who is in the best position to determine the appropriate frequency of control device inspections and the details regarding which components of the control should be inspected.*

#### ~~D.2.10~~ Scrubber Inspections

~~Pursuant to Construction Permit 147-6713-00041, issued February 13, 1997, operation condition 11, and 326 IAC 2-2 (PSD), an inspection shall be performed each calendar quarter of the scrubber (S02). Inspections required by this condition shall not be performed in consecutive months. Defective scrubber components shall be replaced.~~

*The PSD rule cite in Condition D.2.11, now D.2.9 has been deleted, since D.2.11, now D.2.9 is not a PSD requirement.*

#### ~~D.2.11~~ Scrubber Failure

~~Pursuant to Construction Permit 147-6713-00041, issued February 13, 1997, operation condition 11, and 326 IAC 2-2 (PSD), in the event that failure of a scrubber (S02) has been observed, **if operations will continue for ten (10) days or more after the failure is observed before the failed system will be repaired or replaced, the Permittee shall promptly notify the IDEM, OAQ of the expected date the failed system will be repaired or replaced. The notification shall also include the status of the applicable compliance monitoring parameters with respect to normal, and the results of any response actions taken up to the time of notification.**~~

- ~~(c) — The process associated with the affected unit will be shut down immediately until the failed unit has been repaired or replaced.~~
- ~~(d) — Based upon the findings of the inspection, or any additional corrective actions will be devised within eight (8) hours of discovery and will include a timetable for completion.~~

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

*Condition D.2.12, now D.2.10 has been modified to clarify this condition.*

#### ~~D.2.12~~ Record Keeping Requirements

- ~~(a) To document compliance with Condition D.2.5 6, the Permittee shall maintain records of the daily visible emission notations for stacks S01 and S02.~~
- ~~(b) To document compliance with Condition D.2.6 7, the Permittee shall maintain once per day records of the total static pressure drop across **baghouse S01**. during normal operation when exhausting to the atmosphere.~~
- ~~(c) Pursuant to Construction Permit 147-6713-00041, issued February 13, 1997, operation condition 10 a record shall be kept of the results of the inspections and the number of bags replaced to document compliance with Condition D.2.7. These records shall be kept and made available upon request to the Office of Air Quality.~~

**To document compliance with Condition D.2.9, the Permittee shall maintain once per day records of the pressure drop across the scrubbers S02, S09A, and S09B.**

- ~~(d) Pursuant to Construction Permit 147-6713-00041, issued February 13, 1997, operation condition 11, to show compliance with conditions D.2.9, D.2.10, and D.2.11, records shall be kept and made available upon request to the Office of Air Quality (OAQ).~~

**To document compliance with Condition D.2.9, the Permittee shall maintain once per day records of the pH, and flow rate of the scrubbing liquor from scrubbers S02, S09A, and S09B.**

- ~~(e) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit. Records necessary to demonstrate compliance shall be available within 30 days of the end of each compliance period.~~

### SECTION D.3

### FACILITY OPERATION CONDITIONS

#### Facility Description [326 IAC 2-7-5(15)]:

- (c) A Continuous Cold Mill (CCM) with a maximum normal capacity of 660 tons per hour consisting of:
  - (1) one (1) strip leveller and one (1) shear,
  - (2) one (1) laser welder,
  - (3) five (5) cold reduction mills exhausting through one (1) mist elimination system to S11; and
  - (4) one (1) cold mill rotary shear and tension reels.
- (d) A Temper Mill with a maximum capacity of 300 tons per hour exhausting to one (1) oil mist elimination system to Stack S16.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

#### Emission Limitations and Standards [326 IAC 2-7-5(1)]

*The rule cite in Condition D.3.4 has been deleted, since this condition is not a PSD requirement, and the referenced issued permit in Condition D.3.4 has been deleted, since its requirements have been changed.*

#### D.3.4 Particulate Matter (PM) Control [326 IAC 2-2]

~~Pursuant to Construction Permit 147-6713-00041, issued February 13, 1997, operation condition 12, and 326 IAC 2-2 (PSD), e~~Each mist elimination system (S11, S16) shall be in operation at all times when its associated facility ~~the temper mill and cold reduction mills are in operation.~~

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

*Condition D.3.5, has been corrected for typographical errors.*

#### D.3.5 Visible Emissions Notations

- (a) Visible emission notations of stack exhausts S11 and S16 shall be performed once per day during normal daylight operations when exhausting to the atmosphere. A trained employee shall record whether emissions are normal or abnormal.
- (b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.
- (c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.
- (d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.
- (e) If abnormal emissions are observed, the Permittee shall take reasonable response steps in accordance with Section C- Response to Excursions and or Exceedances. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances, shall be considered a ~~violation of~~ deviation from this permit.

*The typographical errors in D.3.6 have been corrected, and the PSD rule cite has been deleted, since this condition is not a PSD requirement, and the referenced issued permit in this condition has been deleted, since its requirements have been changed.*

#### D.3.6 Parametric Monitoring

- (a) ~~Pursuant to Construction Permit 147-6713-00041, issued February 13, 1997, operation condition 12, and 326 IAC 2-2 (PSD), t~~The Permittee shall record the pressure drop of the mist elimination systems (S11, S16) used in conjunction with the CCM at least once per day when in operation. When for any

one reading, the pressure drop across the systems are outside their normal range, or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C - Response to Excursions and or Exceedances. A reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C - Response to Excursions and or Exceedances, shall be considered a violation of deviation from this permit.

- (b) The instruments used for determining the pressure drop shall be subject to approval by IDEM, OAQ, and shall be calibrated at least once every six (6) months.
- (b) ~~The gauge employed to take the pressure drop across the mist elimination systems shall have a scale such that the expected normal reading shall be no less than 20 percent of full scale and be accurate within 0.25% (or  $\pm 5$  digits at 22 degrees Celsius) of full scale reading for S11 and S16. The instrument shall be quality assured and maintained as specified by the vendor.~~

*Condition D.3.7 for control device inspection has been deleted from the permit, because it is not a PSD requirement and IDEM has determined that it is the Permittee that is in the best position to determine the appropriate frequency of control device inspections and the details regarding which components of the control should be inspected.*

#### D.3.7 Mist Eliminator Inspections

~~Pursuant to Construction Permit 147-6713-00041, issued February 13, 1997, operation condition 12, and 326 IAC 2-2 (PSD), an inspection shall be performed each calendar quarter of the mist elimination systems. Inspections required by this condition shall not be performed in consecutive months. Defective mist eliminator components shall be replaced.~~

*The referenced issued permit in Condition D.3.8, now D.3.7 has been deleted, since its original requirements have been changed. Additionally, the PSD rule cite has been deleted, since this condition is not a PSD requirement*

#### D.3.87 Mist Eliminator Failure

~~Pursuant to Construction Permit 147-6713-00041, issued February 13, 1997, operation condition 12, and 326 IAC 2-2 (PSD), **In the event that a mist elimination system's failure has been observed, if operations will continue for ten (10) days or more after the failure is observed before the failed system will be repaired or replaced, the Permittee shall promptly notify the IDEM, OAQ of the expected date the failed system will be repaired or replaced. The notification shall also include the status of the applicable compliance monitoring parameters with respect to normal, and the results of any response actions taken up to the time of notification.**~~

- (e) ~~The process associated with the affected unit will be shut down immediately until the failed unit has been repaired or replaced.~~
- (f) ~~Based upon the findings of the inspection, or any additional corrective actions will be devised within eight (8) hours of discovery and will include a timetable for completion.~~

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

*Condition D.2.12, now D.2.11 has been modified to clarify this condition. Section (d) of this condition has been deleted because the record keeping information required is a duplication of Section (b) and conditions for control device inspections were deleted from the permit.*

#### D.3.98 Record Keeping Requirements

- (a) To document compliance with Condition D.3.5, the Permittee shall maintain records of **the daily** visible emission notations for stacks S11 and S16.
- (b) To show compliance with condition D.3.6, the Permittee shall maintain records of the pressure drop **across each mist eliminators (S11, S16)**, during normal operation when exhausting to the atmosphere.

- (c) ~~To show compliance with condition D.3.7, and pursuant to Construction Permit 147-6713-00041, issued February 13, 1997, operation condition 12, a record shall be kept of the results of the inspection and the number of mist eliminator components replaced.~~
- (d) ~~Pursuant to Construction Permit 147-6713-00041, issued February 13, 1997, operation condition 12, and 326 IAC 2-2 (PSD), to show compliance with conditions D.3.6, D.3.7, and D.3.8, records shall be kept and made available upon request to the Office of Air Quality (OAQ).~~
- (e) (c) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit. Records necessary to demonstrate compliance shall be available within 30 days of the end of each compliance period.

## SECTION D.4

## FACILITY OPERATION CONDITIONS

### Facility Description [326 IAC 2-7-5(15)]:

- (e) A Continuous Galvanizing Line (CGL) with a maximum normal capacity of 183.6 tons per hour consisting of:
  - (1) one (1) flattener,
  - (2) one (1) mash seam welder,
  - (3) alkaline cleaning system exhausting through a wet scrubber system to Stack S17,
  - (4) one (1) 4.1 MMBtu/hr natural gas-fired cleaning section dryer,
  - (5) one (1) 205.7 MMBtu/hr annealing furnace with NOx emissions measured by a continuous emissions monitor (CEM) and controlled by a selective catalytic reduction (SCR) system, exhausting to Stack S18,
  - (6) one (1) 7.0 MMBtu/hr natural gas-fired back-up galvanneal soak section burner,
  - (7) one (1) 2.05 MMBtu/hr natural gas-fired preheater for the zinc pot equipment,
  - (8) one (1) induction zinc premelt pot,
  - (9) one (1) induction heated zinc coating pot,
  - (10) one (1) 0.82 MMBtu/hr natural gas-fired edge burner,
  - (11) one (1) water quench cooling section with a closed loop, recirculating water spray,
  - (12) one (1) 4.1 MMBtu/hr natural gas-fired dryer,
  - (13) one (1) skin pass temper mill and one (1) tension leveller,
  - (14) one (1) chromate application system with one (1) roll coater,
  - (15) one (1) 6.0 MMBtu/hr natural gas-fired dryer,
  - (16) one (1) phosphate application system with one (1) roll coater,
  - (17) one (1) 5.68 MMBtu/hr natural gas-fired dryer,
  - (18) one (1) CGL electrostatic oiler, and
  - (19) one (1) rotary shear

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

### Emission Limitations and Standards [326 IAC 2-7-5(1)]

*The referenced issued permit has been deleted in Condition D.4.7(b), and the PSD rule cite has been deleted, since this condition is not a PSD requirement.*

#### D.4.7 Continuous Emissions Monitoring [326 IAC 3-5]

- (a) Pursuant to 326 IAC 3-5 (Continuous Monitoring of Emissions) the continuous emission monitoring system for the selective catalytic reduction control (SCR) unit shall be calibrated, maintained, and operated for measuring NOx, thereby meeting the performance specifications of 326 IAC 3-5-2.
- (b) Pursuant to ~~Construction Permit 147-6713-00041, issued February 13, 1997, operation condition 39, and 326 IAC 2-2 (PSD),~~ The Permittee shall continuously monitor and record NOx emissions from the SCR control unit. This activity shall be conducted in accordance with 326 IAC 3-5.

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

*The referenced issued permit in Condition D.4.8 has been deleted, since its original requirements have been changed. Additionally, the PSD rule cite has been deleted since this condition is not a PSD requirement.*

#### D.4.8 Visible Emissions Notations

- ~~Pursuant to Construction Permit 147-6713-00041, issued February 13, 1997, operation condition 13, and A147-11471-00041, issued April 18, 2002, and 326 IAC 2-2 (PSD), v~~ Visible emission notations of the stack exhaust S17 shall be performed. These notations shall be performed once per day during daylight hours when exhausting to the atmosphere. A trained employee shall record whether emissions are normal or abnormal:
- (a) Pursuant to Construction Permit 147-6713-00041, issued February 13, 1997, operation condition 13, and A147-11471-00041, issued April 18, 2002, and 326 IAC 2-2 (PSD), v Visible emission notations of the stack exhaust S17 shall be performed. These notations shall be performed once per day during daylight hours when exhausting to the atmosphere. A trained employee shall record whether emissions are normal or abnormal:
  - (b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.
  - (c) In the case of batch or discontinuous operations, notations shall be taken during that part of the operation specified in the facility's specific condition prescribing visible emissions.
  - (d) A trained employee, including trained personnel under contract with the source, is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.
  - (e) If abnormal emissions are observed, the Permittee shall take reasonable response steps in accordance with Section C - Response to Excursions and or Exceedances. Failure to take response steps in accordance with Section C - Response to Excursions and or Exceedances, shall be considered a violation of **deviation from this permit**.

*Condition D.4.9 has been updated, typographical errors have been corrected, and the referenced issued permit has been deleted, since its original requirements have been changed. Additionally, the PSD rule cite has been deleted since this condition is not a PSD requirement.*

#### D.4.9 Parametric Monitoring for Scrubber

- ~~Pursuant to Construction Permit 147-6713-00041, issued February 13, 1997, operation condition 11, A147-11471-00041, issued April 18, 2002, and 326 IAC 2-2 (PSD), t~~ The Permittee shall record the pressure drop and scrubbing liquid flow rate of scrubber S17 at least once per day when the process is in operation. When for any one reading, the pressure drop across the scrubber is outside its normal range, or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C- Response to Excursions and or Exceedances. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C - Response to Excursions and or Exceedances, shall be considered a violation of **deviation from this permit**.
- (a) Pursuant to Construction Permit 147-6713-00041, issued February 13, 1997, operation condition 11, A147-11471-00041, issued April 18, 2002, and 326 IAC 2-2 (PSD), t The Permittee shall record the pressure drop and scrubbing liquid flow rate of scrubber S17 at least once per day when the process is in operation. When for any one reading, the pressure drop across the scrubber is outside its normal range, or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C- Response to Excursions and or Exceedances. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C - Response to Excursions and or Exceedances, shall be considered a violation of **deviation from this permit**.
  - (b) The instruments used for determining the pressure drop, and scrubbing liquid flow rate at the inlet of the control device shall be subject to approval by IDEM, OAQ, and shall be calibrated at least once every six (6) months.
  - (b) ~~The gauge employed to take the pressure drop across the scrubber shall have a scale such that the expected normal reading shall be no less than 20 percent of full scale and be accurate within 0.25% (or  $\pm 5$  digits at 22 degrees Celsius) of full scale reading for S17. The instrument shall be quality assured and maintained as specified by the vendor.~~

*Condition D.4.10, for control device inspection has been deleted from the permit, because it is not a PSD requirement and IDEM has determined that it is the Permittee who is in the best position to determine the appropriate frequency of control device inspections and the details regarding which components of the control should be inspected.*

#### D.4.10 Scrubber Inspections

Pursuant to Construction Permit 147-6713-00041, issued February 13, 1997, operation condition 11, and 326 IAC 2-2 (PSD), an inspection shall be performed each calendar quarter of the scrubber. Inspections required by this condition shall not be performed in consecutive months. Defective scrubber components shall be replaced.

*The referenced issued permit in Condition D.4.11, now D.4.10 has been deleted, since its original requirements have been changed. Additionally, the PSD rule cite has been deleted, since this condition is not a PSD requirement.*

#### D.4.11 Scrubber Failure

Pursuant to Construction Permit 147-6713-00041, issued February 13, 1997, operation condition 11, and 326 IAC 2-2 (PSD), in the event that failure of the scrubber has been observed, **if operations will continue for ten (10) days or more after the failure is observed before the failed system will be repaired or replaced, the Permittee shall promptly notify the IDEM, OAQ of the expected date the failed system will be repaired or replaced. The notification shall also include the status of the applicable compliance monitoring parameters with respect to normal, and the results of any response actions taken up to the time of notification.**

- (a) ~~The process associated with the affected unit will be shut down immediately until the failed unit has been repaired or replaced.~~
- (b) ~~Based upon the findings of the inspection, or any additional corrective actions will be devised within eight (8) hours of discovery and will include a timetable for completion.~~

*Condition D.4.12, for control device inspection has been deleted from the permit, because it is not a PSD requirement and IDEM has determined that it is the Permittee who is in the best position to determine the appropriate frequency of control device inspections and the details regarding which components of the control should be inspected.*

#### D.4.12 Selective Catalytic Reduction System Inspection

Pursuant to Construction Permit 147-6713-00041, issued February 13, 1997, operation condition 38(c), and 326 IAC 2-2 (PSD), an inspection shall be performed each calendar quarter of the SCR. Inspections required by this condition shall not be performed in consecutive months. Defective SCR components shall be replaced.

*The referenced issued permit in Condition D.4.13, now D.4.1 permit has been deleted, since its original requirements have been changed. Additionally, the PSD rule cite has been deleted, since this condition is not a PSD requirement.*

#### D.4.13 Selective Catalytic Reduction System Failure

Pursuant to Construction Permit 147-6713-00041, issued February 13, 1997, operation condition 38(d), and 326 IAC 2-2 (PSD), in the event that the SCR's failure has been observed, **if operations will continue for ten (10) days or more after the failure is observed before the failed system will be repaired or replaced, the Permittee shall promptly notify the IDEM, OAQ of the expected date the failed system will be repaired or replaced. The notification shall also include the status of the applicable compliance monitoring parameters with respect to normal, and the results of any response actions taken up to the time of notification.**

- (a) ~~The affected unit will be shut down immediately until the failed unit has been repaired or replaced.~~
- (b) ~~Based upon the findings of the inspection, any additional corrective actions will be devised within~~

eight (8) hours of discovery and will include a timetable for completion.

*The typographical errors in Condition D.4.15, now D.4.13 have been corrected as follows:*

**D.4.1513NOx Monitoring System Downtime [326 IAC 2-7-6] [326 IAC 2-7-5(3)]**

Whenever the NOx continuous emission monitoring system is malfunctioning or down for repairs or adjustments, the following method shall be used to provide information related to NOx emissions:

Monitoring of the SCR operating parameters for ammonia flow rate and inlet duct temperature, shall be implemented. The parameters are as follows:

- (a) The Permittee shall record the ammonia flow rate and inlet duct temperature at least four (4) times per hour until the primary CEM or a backup CEM is brought online and functioning properly. The Preventive Maintenance Plan for the SCR shall contain troubleshooting contingency and corrective actions for when the readings are outside of the normal range for any one reading during downtime of the NOx CEMS. When for any one reading, the ammonia flow rate and inlet duct temperature are outside the normal range during downtime of the NOx CEMS, the Permittee shall take reasonable response steps in accordance with Section C – Response to Excursions and or Exceedances.
- (b) The instrument used for determining the ammonia flow rate and inlet duct temperature shall comply with Section C - Instrument Specifications, of this permit, shall be subject to approval by IDEM, OAQ, and shall be calibrated at least once every six (6) months.

Failure to take response steps in accordance with Section C - Response to Excursions and or Exceedances, shall be considered a violation of **deviation from** this permit.

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

*Record keeping of control device inspections in Sections (d) and (e) of Condition D.4.16, now D.4.14 have been deleted since the conditions requiring inspections have been deleted.*

*Section(f) has been deleted, since the SCR operating parameters, which include ammonia flow rate and inlet duct pressure are already addressed by Section (h), now (d).*

**D.4.1614Record Keeping Requirements**

- (a) To document compliance with condition D.4.2, the Permittee shall maintain records of the emission rates of NO<sub>x</sub> in pounds per hour.
- (b) To document compliance with condition D.4.8, the Permittee shall maintain records of visible emission notations for stack S17.
- (c) To document compliance with condition D.4.9, the Permittee shall maintain once per day records of the pressure drop **across the scrubber S17 and scrubbing liquid** flow rate. during normal operation when exhausting to the atmosphere.
- ~~(d) To document compliance with condition D.4.10, and pursuant to Construction Permit 147-6713-00041, issued February 13, 1997, operation condition 11, and 326 IAC 2-2 (PSD), a record shall be kept of the results of the inspection and the number of scrubber components replaced.~~
- ~~(e) To document compliance with condition D.4.12, and pursuant to Construction Permit 147-6713-00041, issued February 13, 1997, operation condition 38(c), and 326 IAC 2-2 (PSD), a record shall be kept of the results of the inspection and the number of SCR components replaced.~~
- ~~(f) Pursuant to Construction Permit 147-6713-00041, issued February 13, 1997, operation condition 38(f), and 326 IAC 2-2 (PSD), records for the SCR shall be kept and made available upon request to the Office of Air Quality (OAQ).~~

- (g)(d) To document compliance with condition D.4.14-12, the Permittee shall record the output of the CEM system and shall perform the required record keeping and reporting in accordance with 326 IAC 3-5-6 and 326 IAC 3-5-7, respectively.
- (h)(e) To document compliance with condition D.4.15-13, the Permittee shall record the ammonia flow rate and inlet duct temperature of the SCR at least four (4) times per hour until the primary CEMS or a backup CEMS is brought online.
- (i)(f) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit. Records necessary to demonstrate compliance shall be available within 30 days of the end of each compliance period.

*The referenced issued permit in Condition D.4.17, now D.4.15 has been deleted, since its original requirements have been changed. Additionally, the PSD rule cite has been deleted since this condition is not a PSD requirement.*

#### D.4.4715 Reporting Requirements

- (a) Pursuant to Construction Permit Amendment 147-10751-00041, issued March 4, 1999, and 326 IAC 2-2 (PSD), a written report of excess emissions measured by the continuous emissions monitor shall be submitted each calendar quarter to the addresses listed in Section C- General Reporting Requirements, of this permit, using the reporting forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the quarter being reported. Pursuant to 326 IAC 3-5-7, the averaging periods used to determine excess emissions shall be three hour block periods ending at 03:00, 06:00, 09:00, 12:00, 15:00, 18:00, 21:00, and 24:00. The excess emissions report shall consist of the following:
  - (1) A description of the nature and cause of the excess emissions, if known.
  - (2) The date and time identifying each period during which the continuous monitoring system was inoperative or malfunctioning, except for zero and span checks, and the nature of the system repair or adjustments.
  - (3) When no excess emissions have occurred and the continuous monitoring system has not been inoperative, repaired, or adjusted.
- (b) The report described in part (a) of this condition as submitted by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

#### SECTION D.6

#### FACILITY OPERATION CONDITIONS

##### Facility Description [326 IAC 2-7-5(15)]:

- (g) Ancillary Equipment, as follows:
  - (1) Hydrogen batch annealing with fifteen (15) natural gas-fired furnaces with low-NOx burners rated at 6.75 MMBtu/hr exhausting through the roof vent system in building 500;
  - (2) Space heaters and air make-up units with each unit limited to no more than 5.2 MMBtu per hour and a combined rating limited to no more than 251 MMBtu/hr;
  - (3) Two (2) non-contact cooling towers with mist drift eliminators exhausting to the atmosphere;
  - (4) Storage tanks for HCl, nitric acid, and HF exhausting through a fume scrubber to Stack S04 consisting of:
    - (A) One (1) HF acid tank with a capacity of 20,000 gallons;
    - (B) One (1) nitric acid tank with a capacity of 20,000 gallons;
    - (C) Three (3) waste acid tanks, each with a capacity of 40,000 gallons, or 120,000 gallons

- combined;
- (D) Three (3) HCl/ra acid tanks, each with a capacity of 20,000 gallons, or 60,000 gallons combined; and
  - (E) Two (2) CPL waste acid tanks, each with a capacity of 20,000 gallons, or 40,000 gallons combined.
- (5) Miscellaneous storage tanks at the continuous cold mill (CCM) operation not to exceed an overall capacity of 353,000 gallons, consisting of:
- (A) Two (2) Morgoil System 2 tanks, No1 and No.2, each with a capacity of 18,500 gallons, or 37,000 gallons combined;
  - (B) One (1) CCM gear lube tank, with a capacity of 13,500 gallons;
  - (C) One (1) base oil storage tank, with a capacity of 10,000 gallons;
  - (D) One (1) direct oil tank, with a capacity of 4,000 gallons;
  - (E) Two (2) Emulsion tanks, No.1 and No.2, each with a capacity of 88,000 gallons, or 176,000 gallons combined; and
  - (F) Two (2) Emulsion tanks, No.3 and No.4, each with a capacity of 44,000 gallons, or 88,000 gallons combined;
- (6) Miscellaneous storage tanks at the temper mill operation not to exceed an overall capacity of 131,000 gallons, consisting of:
- (A) One (1) direct oil application tank, with a capacity of 4,000 gallons;
  - (B) Three (3) temper mill tanks, TM1-UZ203, LSL-01, 02, and 03, each with a capacity of 10,000 gallons, or 30,000 gallons combined;
  - (C) One (1) base oil tank, with a capacity of 8,000 gallons;
  - (D) One (1) solution tank, with a capacity of 3,200 gallons;
  - (E) One (1) gear lube tank, TM-1-P-2084, with a capacity of 2,100 gallons; and
  - (F) Two (1) Morgoil tanks, TM-1-P-2000 and 99, each with a capacity of 5,300 gallons, or 10,600 gallons combined.
- (7) Miscellaneous oil storage tanks for the continuous galvanizing line (CGL) not to exceed an overall capacity of 16,250 gallons, consisting of:
- (A) One (1) tank, GL1-PGOL-TNK-01, with a capacity of 6,000 gallons; and
  - (B) Three (3) tanks, GL1-PGOL-TNK-02, 03, and 04, each with a capacity of 3,000 gallons, or 9,000 gallons combined.
- (8) A miscellaneous oil storage tank for the continuous pickling line (CPL), consisting of one (1) CPL pickling tank, with a capacity of 15,000 gallons.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

#### Emission Limitations and Standards [326 IAC 2-7-5(1)]

*Condition D.6.5, have been updated and the referenced issued permit has been deleted, since its original requirements have been changed. The PSD rule cite has also been deleted, since this condition is not a PSD requirement. In addition, the pH of the scrubbing liquid has been deleted in this condition since water is used as scrubbant, other operating parameters ranges of the scrubber have been added based on the manufacturer's specifications.*

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

##### D.6.5 Parametric Monitoring for Scrubber

- (a) Pursuant to A147-11471-00041, issued April 18, 2002 and 326 IAC 2-2 (PSD), the Permittee shall record the pressure drop **range**, and **the** scrubbing liquid flow rate of scrubber S04 at least once per day when the process is in operation. The process operation occurs each time material is

being added to or taken from the tanks controlled by scrubber S04. When for any one reading, the pressure drop range across the scrubber is **outside the range of 0.4 to 4.0 inches**, or the pH of the scrubbing liquid is **or the scrubbing liquor is below the minimum flow rate of 5 gallons per minute outside its normal range**, or a range as established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C- Response to Excursions and or Exceedances. A reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C - Response to Excursions and or Exceedances, shall be considered a **violation of deviation from** this permit.

- (b) The instruments used for determining the pH of the scrubbing liquid, pressure drop, and scrubbing liquid flow rate at the inlet of the control device shall be subject to approval by IDEM, OAQ, and shall be calibrated at least once every six (6) months.
- (b) ~~The gauge employed to take the pressure drop across the scrubber shall have a scale such that the expected normal reading shall be no less than 20 percent of full scale and be accurate within  $\pm 2\%$  of full scale reading for S04. The instrument shall be quality assured and maintained as specified by the vendor.~~

*Condition D.6.6 for control device inspection has been deleted from the permit, because IDEM has determined that it is the Permittee that is in the best position to determine the appropriate frequency of control device inspections and the details regarding which components of the control should be inspected.*

#### D.6.6 Scrubber Inspections

~~Pursuant to Construction Permit 147-6713-00041, issued February 13, 1997, operation condition 11, an inspection shall be performed each calendar quarter of the scrubber (S04). Inspections required by this condition shall not be performed in consecutive months. Defective scrubber components shall be replaced. A record shall be kept of the results of the inspection and the number of scrubber components replaced.~~

*The permit referenced in Condition D.6.7 has been deleted, since the original requirements of this condition have been changed.*

#### D.6.7 Scrubber Failure

~~Pursuant to Construction Permit 147-6713-00041, issued February 13, 1997, operation condition 11, i In the event that failure of a scrubber (S04) has been observed, **if operations will continue for ten (10) days or more after the failure is observed before the failed system will be repaired or replaced, the Permittee shall promptly notify the IDEM, OAQ of the expected date the failed system will be repaired or replaced. The notification shall also include the status of the applicable compliance monitoring parameters with respect to normal, and the results of any response actions taken up to the time of notification.**~~

- (a) ~~The process associated with the affected unit will be shut down immediately until the failed unit has been repaired or replaced.~~
- (b) ~~Based upon the findings of the inspection, or any additional corrective actions will be devised within eight (8) hours of discovery and will include a timetable for completion.~~

#### D.6.7 Record Keeping

- (a) Pursuant to 326 IAC 12 and 40 CFR Part 60.110b, Subpart Kb (Standards of Performance for Storage Vessels for Petroleum Liquids), the owner or operator of all storage vessels shall keep readily accessible records of the tank dimensions and tank capacity.
- (b) **To document compliance with Condition D.6.5, the Permittee shall maintain once per day records of the pressure drop range across the scrubber, and the flow rate of the scrubbing liquor.**

- (b c) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit. Records necessary to demonstrate compliance shall be available within 30 days of the end of each compliance period.

## SECTION D.7

### FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-7-5(15)]:

- (h) Rolling oils, rust preventative oils, and prelube oils.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

### Emission Limitations and Standards [326 IAC 2-7-5(1)]

*The condition title of D.7.2 has been changed, since HAPs are not regulated under PSD, and the issued permit referenced in this condition has been deleted, since its original requirements have been changed.*

#### D.7.2 ~~Hazardous Air Pollutants (HAPs)~~ Volatile Organic Compounds (VOC) Best Available Control Technology (BACT) [326 IAC 2-2]

Pursuant to Construction Permit 147-6713-00041, issued February 13, 1997, operation condition 20, and 326 IAC 2-2-3 (Best Available Control Technology), the volatile organic compound (VOC) emissions of the various oils shall contain no hazardous air pollutants (HAPs) as defined in 326 IAC 14-1-2 and 40 CFR 61.02 and 61.03.

### Conclusion

The NOx for the CPL shall be subject to the conditions of the attached **PSD/Significant Source Modification No. 147-23585-00041, and Significant Permit Modification No. 147-23809-00041.**

# Appendix A

## NO<sub>x</sub> CONTROL TECHNOLOGY / PSD BACT ANALYSIS for the CONTINUOUS PICKLING LINE (CPL)

### AK Steel Corporation

#### Source Background and Description

**Source Location:** 6500 N. U.S. 231, Rockport, Indiana 47635  
**County:** Spencer  
**SIC Code:** 3312  
**PSD/SSM Permit No.:** 147-23585-00041  
**Reviewer:** Aida De Guzman

AK Steel Corporation was issued a PSD Permit No. 147- 6713-00041 on February 13, 1997 for strip steel pickling process. The proposed PSD/SSM Permit No. 147-23585-00041 is to address the PSD NO<sub>x</sub> BACT, for the Continuous Pickling Line (CPL) which should have been performed in the issued PSD Permit No. 147-6713-00041. This issued permit only performed NO<sub>x</sub> BACT Analysis for the Annealing and Pickling Line (APL). This issued PSD permit established an emission limit of 175 parts per million by volume dry (ppmvd) and 9.66 pounds of NO<sub>x</sub> per hour (lbs/hr).

NO<sub>x</sub> is emitted from the following process lines:

- (a) One (1) Annealing Pickling Line (APL), which processes stainless grades of strip steel. The line uses a mixture of hydrofluoric and nitric acids. NO<sub>x</sub> is generated in the nitric acid pickling baths. The entire APL is equipped with a ventilation system which draws fumes from the line through multi-stage high efficiency scrubber to minimize NO<sub>x</sub> emissions.

At the entry end of the APL, steel is immersed in a bath of electrolytic sodium sulfate (ESS). Because the ESS process generates fumes (but not NO<sub>x</sub>), it is equipped with its own scrubber. The ESS scrubber is not intended to control NO<sub>x</sub>.

- (b) One (1) Continuous Pickling Line (CPL), which processes both carbon and stainless grades, which is unique in the industry.

Hydrochloric acid (HCl) is the primary pickling acid used in the CPL, when carbon steel grades are processed. The CPL is equipped with a ventilation system and a two-stage wet scrubber designed to control HCl emissions from the entire line.

At times, when the CPL is used for pickling stainless grades of steel, nitric acid is added to two of the rinse baths of the process. NO<sub>x</sub> is generated in these baths when stainless grades are pickled. Other than the rinse baths, nitric acid is not used in any other sections of the CPL.

Because, the CPL scrubber is not designed for NO<sub>x</sub> control, the rinse sections of the CPL are equipped with an auxiliary ventilation system to divert fumes from the rinse baths away from the CPL scrubber. This auxiliary ventilation system is operated only when stainless grades are processed in the CPL. Through a series of dampers and controls, the diverted NO<sub>x</sub> fumes are drawn through a fan (the booster/crossover fan) which discharges into the same NO<sub>x</sub> scrubber which serves the APL.

### Step 1: Identify Potential Control Technologies

NO<sub>x</sub> are typically emitted from combustion sources and non-combustion sources. Nitrogen oxide (NO<sub>x</sub>) emissions include nitric oxide (NO) and nitrogen dioxide (NO<sub>2</sub>). Approximately 95 percent of the NO<sub>x</sub> formed during combustion processes is NO, with most of the remaining emitted as NO<sub>2</sub>. Because NO<sub>x</sub> emissions tend to oxidize as NO<sub>2</sub> in the atmosphere, NO<sub>x</sub> emissions are generally expressed in units of NO<sub>2</sub> equivalent emissions. NO<sub>x</sub> is formed from the chemical reaction between nitrogen and oxygen at high temperatures. NO<sub>x</sub> formation during combustion occurs in three ways:

- (1) Oxidation of nitrogen in the combustion air which occurs at elevated temperatures (thermal NO<sub>x</sub>);
- (2) A reaction of hydrocarbons and nitrogen followed by oxidation (prompt NO<sub>x</sub>); and
- (3) Oxidation of nitrogen chemically bound in the fuel (fuel NO<sub>x</sub>).

The general approaches to control NO<sub>x</sub> emissions from stationary sources include:

- (1) Limiting the nitrogen content of fuels combusted;
- (2) Add-on controls; or
- (3) Combustion controls

#### Combustion Controls

NO<sub>x</sub> emissions can be reduced significantly by minimizing the rate at which NO<sub>x</sub> is formed in the combustion process. This can be accomplished by manipulating the combustion process to occur under fuel rich conditions or by reducing the peak flame temperature.

#### NO<sub>x</sub> Reduction Technologies Using Combustion Controls:

- (1) Low Excess Air (LEA)
- (2) Off-Stoichiometric (OS) Firing
- (3) Low NO<sub>x</sub> Burners (LNB)
- (4) Flue Gas Recirculation (FGR)

Potential control options for achieving fuel rich combustion include Low Excess Air (LEA) operation, Off-Stoichiometric (OS) Firing, [which here refers to Burners Out Of Service (BOOS) or Overfire Air (OFA)], and Low NO<sub>x</sub> Burners (LNBs). Reducing the flame temperature inhibits thermal NO<sub>x</sub> production and can be implemented by Flue Gas Recirculation (FGR). These technologies have been determined to be technically **not** feasible to the Continuous Pickling Line (CPL) because it is a non-combustion source.

#### NO<sub>x</sub> Reduction Using Control Technologies:

- (A) Selective Non-Catalytic Reduction (SNCR) – In selective non-catalytic reduction systems, the ammonia (NH<sub>3</sub>) or urea is injected into a very hot gas zone at approximate temperature of 1600 °F to 2000 °F where thermal reactions leading to the chemical reduction of nitrogen oxides can occur.

However, if the ammonia or urea is injected into an area that is too cold, the reduction efficiency of nitrogen oxides is low, and some of the reducing gas (NH<sub>3</sub>) can be emitted to the atmosphere.

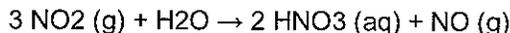
SCNR systems are typically used for combustion sources with high operating temperature. SNCR have been determined to be technically **not** feasible for the CPL because the CPL operates with an exhaust temperature of 150 °F or less, which is a lot lower than the SNCR operating temperature of 1600 °F.

- (B) Selective Catalytic Reduction (SCR - In selective catalytic reduction, beds containing ammonia or urea reduce nitrogen oxides to molecular nitrogen and water. The catalysts are usually composed of tungsten and vanadium deposited through a substrate that is extruded into a honeycomb arrangement. The gas stream passes through the channels in the honeycomb. There are usually two or three separate catalyst beds in series. NO<sub>x</sub> reduction efficiencies ranging from 75 to 90% are possible when the following conditions are met:

- Flue gas temperature of 500 °F to 1100 °F
- The amount of catalyst is sufficient
- The catalyst is in good condition
- The ammonia reagent flow is sufficient
- The ammonia is adequately distributed across the gas stream

SCR systems are typically used for combustion sources with high operating temperature. SCR has been determined to be technically **not** feasible for the CPL because the CPL operates with an exhaust temperature of 150 °F or less, which is a lot lower than SCR operating temperature of 500 °F.

- (C) Scrubbers - For non-combustion sources like the CPL, gas scrubbing is the most common form of low temperature NO<sub>x</sub> treatment. NO<sub>x</sub> is a mixture of NO<sub>2</sub> and NO. The NO<sub>2</sub> component is relatively soluble and can be scrubbed with water to form nitric acid:



Because 1 mole of NO is produced for every three moles of NO<sub>2</sub> absorbed, the scrubbing efficiency for NO<sub>2</sub> is typically limited to 67% when only a one-stage scrubber is used. Use of an alkaline scrubbing solution will produce more stable reaction products, but NO will still be released if there isn't sufficient contact time for its absorption.

Scrubbing NO<sub>x</sub> becomes even more difficult as the percentage by volume of NO in the NO<sub>x</sub> increases, especially above 50%. NO is relatively insoluble in water and very slow to react with the oxygen in atmospheric air. The slow oxidation rate of NO can be improved by adding a gas-phase oxidant such as ozone (O<sub>3</sub>) or chlorine dioxide (ClO<sub>2</sub>). Of these two oxidants, ozone is more desirable because it rapidly oxidizes NO to di-nitrogen pentoxide (N<sub>2</sub>O<sub>5</sub>), which reacts rapidly with water or alkaline solutions, and does not produce any undesirable byproducts or salts.

A liquid-phase oxidant, such as hydrogen peroxide, will oxidize NO to NO<sub>2</sub>, but not as rapidly as a gas-phase oxidant because the NO first needs to be absorbed into solution. The primary benefit of using hydrogen peroxide in the scrubbing solution is that it prevents the reformation and release of NO by oxidizing the nitrous acid or nitrites before they can decompose. Hydrogen peroxide has been successfully used in packed towers, which are the most commonly used equipment for gas scrubbing.

This control technology option will be further evaluated for control of NO<sub>x</sub> emissions from the CPL.

**Step 2: Eliminate Technically Infeasible Options:**

As shown in Step 1, the only remaining viable control technology for the CPL is a scrubber.

**Step 3: Evaluate Most Effective Control:**

The Continuous Pickling Line (CPL) that AK Steel, Rockport employs has the ability to pickle carbon and stainless steel. There are no other pickling operations in the steel industry that have the ability to process the same way as AK Steel, Rockport.

AK Steel, Rockport already employs a multi-stage wet scrubbing system for NOx control at the CPL/APL lines. However, further analysis was made for installing a new scrubber exclusively to control the CPL NOx emissions, and an option to control the CPL using the scrubber already installed at the APL.

**Control Option #1: Installation of a New Scrubber for the CPL**

Under the following control option #1, a new scrubber would be installed for NOx generated on the CPL Line. Unlike Option #3, this new scrubber would not be restrained by the existing space limitations at the CPL. Instead, it would be a high efficiency multi-tower scrubber similar in performance and configuration to the existing APL scrubber. To achieve scrubber control efficiency of 98% (like the APL), a new CPL scrubber would require six (6) columns and four (4) storage tanks. It would necessitate an expansion of the CPL Building. The cost analysis below includes the cost of relocating the tracks immediately outside of the existing CPL Building and installation of a new receiving station for chemicals. Capital costs include both the scrubber itself and these building modifications. Operation and maintenance costs are pro-rated (on a cfm basis) from current actual costs at the APL scrubber, including labor, chemicals and wastewater treatment.

<b>Control Option #1- Installation of a New Scrubber for the CPL (482 tons/yr baseline NOx Emissions)</b>			
<b>CAPITAL COST (Pollution Control Equipment)</b>		<b>Unit Cost</b>	<b>TOTAL (\$)</b>
Purchased Equipment Cost (PEC)			
	Basic Equipment and Auxiliaries (A)	A	\$700,000
	Instrumentation and Controls	0.10 A	\$ 70,000
	Sales Taxes	0.03 A	\$21,000
	Freight	0.05 A	\$35,000
<b>Total Purchased Equipment Costs (PEC)</b>			<b>\$825,000</b>
Direct Installation Costs (B) = 100% of PEC			\$700,000
	Site Preparation/Foundation and Support = 3750 sq ft @ \$50/sq ft		\$187,500
	Building Expansion = 3750 sq ft x 30 ft high \$5.30 /c.f.(means cost data)		\$596,250
	Track Relocation = 200 ft x 2 tracks		\$80,000
	Storage Tanks & Unloading – based on estimate from another mill		\$250,000
<b>Total Direct Installation Costs (DI) = PEC + B + site prep., electrical, handling, piping, ductwork, insulation, painting</b>			<b>\$2,888,750</b>
Indirect Installation Costs			
	Engineering	0.10 PEC	\$82,600.
	Construction and Field Expenses	0.10 PEC	\$82,600
	Contractor Fees	0.10 PEC	\$82,600

<b>Control Option #1- Installation of a New Scrubber for the CPL (482 tons/yr baseline NOx Emissions)</b>			
	Start-up	0.01 PEC	\$8,260
	Performance Test	0.01 PEC	\$8,260
<b>Total Indirect Installation Costs (IC)</b>			\$264,320
<b>Contingency (retrofit factor) 50% (IC + DI)</b>			\$1,577,035
<b>TOTAL CAPITAL INVESTMENT (TCI) = (DI + IC + Contingency)</b>			<b>\$4,731,105</b>
<b>ANNUAL OPERATION &amp; MAINTENANCE</b>			
Direct Operating Costs (DAC)			
	Operating Labor (68% of current actual maintenance labor) prorated from current actual costs = 5000 cfm CPL /7300 cfm actual air flow from APL		\$88,400
	Chemicals @ 68 % of current costs prorated from current actual costs		\$2,040,000
	Replacement parts (5% A)		\$35,000
	Wastewater Treatment (5% of current actual) prorated from current actual costs		\$170,000
	Electricity (\$0.06/kW-hr (50 Hp fan motor))		\$19,597
<b>Total Direct Operating Costs (DAC)</b>			<b>\$2,352,997</b>
Indirect Operating Costs (IAC)			
	Overhead (60% of operating labor)		\$1,277,040
	Administrative (2% of TCI)		\$94,622
	Property Tax (1% of TCI)		\$47,311
	Insurance (1% of TCI)		\$47,311
<b>Total Indirect Operating Costs (IAC)</b>			<b>\$1,466,284</b>
<b>Total Direct and Indirect Annual Operating Costs (O&amp;M = DAC + IAC)</b>			<b>\$3,819,281</b>
Capital Recovery Annual Costs			
	Capital Recovery Years		10 yrs
	Annual Interest Rate		7%
	Capital Recovery Factor (CRF)		0.1423
	Annualized Capital Investment Cost (ACIC = CRF * TCI)		\$673,236
<b>TOTAL Annualized Operating Cost (TAC = ACIC + O&amp;M)</b>			<b>\$4,492,517</b>
Baseline NOx Emission Rate (ton/yr)			482
NOx Removed (tons/yr)			472.2
Control Efficiency			98%
Cost per Ton Removed =			<b>\$9,514</b>

**Control Option #2: Controlling CPL NOx Through The APL Scrubber**

The following control option #2, which is essentially the same as the current practice at AK Steel – Rockport, NOx fumes would be drawn off the rinse sections of the CPL and directed to the existing APL scrubber for control, with a 98.6% collection efficiency and 98% control (overall control of 97%) The equipment costs for this option are assumed to be zero, because the APL scrubber already exists:

<b>Control Option #2- Existing Set-Up: Use of APL Scrubber to Control CPL (482 tons/yr baseline NOx Emissions)</b>		
<b>CAPITAL COST (Pollution Control Equipment)</b>	<b>Unit Cost</b>	<b>TOTAL (\$)</b>
<b>Purchased Equipment</b>		
Basic Equipment and Auxiliaries (A)	A	\$0
Instrumentation and Controls	0.10 A	\$0
Sales Taxes	0.03 A	\$0
Freight	0.05 A	\$0
<b>Total Purchased Equipment Costs (PEC)</b>		<b>\$0</b>
<b>Direct Installation Costs (B):</b>		
Site Preparation/Foundation and Support		\$0
Handling and Erection		\$0
Electrical		\$0
Piping		\$0
Ductwork		\$0
Insulation for ductwork		\$0
Painting		\$0
<b>Total Direct Installation Costs (DI) = PEC + B + site prep., electrical, handling, piping, ductwork, insulation, painting</b>		<b>\$0</b>
<b>Indirect Installation Costs</b>		
Engineering	0.10 PEC	\$0
Construction and Field Expenses	0.05 PEC	\$0
Contractor Fees	0.10 PEC	\$0
Start-up	0.01 PEC	\$0
Performance Test	0.01 PEC	\$0
<b>Total Indirect Installation Costs (IC)</b>		<b>\$0</b>
<b>Contingency (retrofit factor) 50% (IC + DI)</b>		<b>\$0</b>
<b>TOTAL CAPITAL INVESTMENT (TCI) = (DI + IC + Contingency)</b>		<b>\$0</b>
<b>ANNUAL OPERATION &amp; MAINTENANCE</b>		
Direct Operating Costs (DAC) = (Prorate current operating costs based on 2500 cfm from CPL, 7300 cfm for APL Scrubber, therefore, 34%)		
Operating Labor (34% of current actual maintenance labor) prorated from current actual costs		\$44,200
Chemicals @ 34% of current costs		\$1,020,000
Replacement parts (5% A)		\$0
Electricity (\$0.06/kW-hr (50 Hp fan motor)) @ 34%		\$6,663
<b>Total Direct Operating Costs (DAC)</b>		<b>\$1,070,863</b>
<b>Indirect Operating Costs (IAC)</b>		
Overhead (60% of operating labor)		\$26,520
Administrative (2% of TCI)		\$0
Property Tax (1% of TCI)		\$0
Insurance (1% of TCI)		\$0
<b>Total Indirect Operating Costs (IAC)</b>		<b>\$26,520</b>

<b>Control Option #2- Existing Set-Up: Use of APL Scrubber to Control CPL (482 tons/yr baseline NOx Emissions)</b>		
<b>Total Direct and Indirect Annual Operating Costs (O&amp;M = DAC + IAC)</b>		<b>\$1,097,383</b>
<b>Capital Recovery Annual Costs</b>		
Capital Recovery Years		10 yrs
Annual Interest Rate		7%
Capital Recovery Factor (CRF)		0.1423
Annualized Capital Investment Cost (ACIC = CRF * TC)		\$0
<b>TOTAL Annualized Operating Cost (TAC = ACIC + O&amp;M)</b>		<b>\$1,097,383</b>
Baseline NOx Emission Rate (ton/yr)		482
NOx Removed (tons/yr)		467.5
Control Efficiency = 98.6% capture efficiency * 98% control = 97% overall control		97%
Cost per Ton Removed =		<b>\$2,347</b>

**Control Option #3: Installation of a Separate Scrubber for the CPL**

The following control option #3 is for the installation of a separate scrubber for the CPL in the existing building. Because of the limited space available, the scrubber that can be installed in the existing building can only accommodate 2 or 3 column scrubber with a flow rate of 5,000 cubic feet per minute (cfm) that could achieve 70% to 80% NOx removal:

<b>Control Option #3- Continuous Pickling Line (CPL) NOx Control - Adding a New Scrubber (5000 cfm) Inside the Existing Building (482 tons/yr baseline NOx Emissions)</b>		
<b>CAPITAL COST (Pollution Control Equipment)</b>	<b>Unit Cost</b>	<b>TOTAL (\$)</b>
<b>Purchased Equipment Cost (PEC)</b>		
Basic Equipment and Auxiliaries (A)	A	\$300,000
Instrumentation and Controls	0.10 A	\$ 30,000
Sales Taxes	0.03 A	\$9,000
Freight	0.05 A	\$15,000
<b>Total Purchased Equipment Costs (PEC)</b>		<b>\$354,000</b>
<b>Direct Installation Costs (B): = 100% of PEC</b>		
Site Preparation/Foundation and Support		Included in B
Handling and Erection		Included in B
Electrical		Included in B
Piping		Included in B
Ductwork		Included in B
Insulation for ductwork		Included in B
Painting		Included in B
<b>Total Direct Installation Costs (DI) = PEC + B</b>		<b>\$654,000</b>
<b>Indirect Installation Costs</b>		
Engineering	0.10 PEC	\$35,400.
Construction and Field Expenses	0.05 PEC	\$35,400

<b>Control Option #3- Continuous Pickling Line (CPL) NOx Control - Adding a New Scrubber (5000 cfm) Inside the Existing Building (482 tons/yr baseline NOx Emissions)</b>			
	Contractor Fees	0.10 PEC	\$35,400
	Start-up	0.01 PEC	\$3,540
	Performance Test	0.01 PEC	\$3,540
	<b>Total Indirect Installation Costs (IC)</b>		<b>\$113,280</b>
	<b>Contingency (retrofit factor) 50% (IC + DI)</b>		<b>\$383,640</b>
	<b>TOTAL CAPITAL INVESTMENT (TCI) = (DI + IC + Contingency)</b>		<b>\$1,150,920</b>
<b>ANNUAL OPERATION &amp; MAINTENANCE</b>			
<b>Direct Operating Costs (DAC)</b>			
	Operating Labor (56% of current actual maintenance labor) prorated from current actual costs		\$72,800
	Chemicals @ 56% % of current costs (5000/7300 cfm * 80%/98% eff)		\$1,680,000
	Replacement parts (5% A)		\$15,000
	Wastewater Treatment (4% of current actual)		\$136,000
	Electricity (\$0.06/kW-hr (25 Hp fan motor))		\$9,798
	<b>Total Direct Operating Costs (DAC)</b>		<b>\$1,913,598</b>
<b>Indirect Operating Costs (IAC)</b>			
	Overhead (60% of operating labor)		\$43,680
	Administrative (2% of TCI)		\$23,018
	Property Tax (1% of TCI)		\$11,509
	Insurance (1% of TCI)		\$11,509
	<b>Total Indirect Operating Costs (IAC)</b>		<b>\$89,717</b>
	<b>Total Direct and Indirect Annual Operating Costs (O&amp;M = DAC + IAC)</b>		<b>\$2,003,315</b>
<b>Capital Recovery Annual Costs</b>			
	Capital Recovery Years		10 yrs
	Annual Interest Rate		7%
	Capital Recovery Factor (CRF)		0.1423
	Annualized Capital Investment Cost (ACIC = CRF * TCI)		\$163,776
	<b>TOTAL Annualized Operating Cost (TAC = ACIC +O&amp;M)</b>		<b>\$2,167,091</b>
	Baseline NOx Emission Rate (ton/yr)		482
	NOx Removed (tons/yr)		385.4
	Control Efficiency		80%
	Cost per Ton Removed =		<b>\$5,623</b>

The following table is a summary of the economic analysis from all the different control options evaluated for CPL:

Option	Control Description	Tons of VOC Removed	\$/ton of VOC Removed	Incremental Cost (\$/ton Removed)	Ranking/ Degree of Reduction
Control Option #1	- Installation of a New Scrubber for the CPL (482 tons/yr baseline NOx Emissions)	472.4	\$9,514	\$772,402	1st 98%
(Selected) Control Option #2	Existing Set-Up: Use of APL Scrubber to Control CPL (482 tons/yr baseline NOx Emissions)	467.5	\$2,347		2nd 97%
Control Option #3	Adding a New Scrubber (5000 cfm) Inside the Existing Building (482 tons/yr baseline NOx Emissions)	385.4	\$5,623		3rd 80%

Incremental Cost =  $\frac{\text{Option \# tons of VOC removed} * \text{option \# \$/ton removed} - \text{Option Selected tons of VOC removed} * \text{Option Selected \$/ton removed}}{\text{Option \# tons of VOC removed} - \text{Option Selected tons of VOC removed}}$

Based on the economic evaluation for controlling the existing Continuous Pickling Line (CPL), the costs ranged from approximately \$2,347 per ton of NOx removed to \$9,514 per ton of NOx removed.

The incremental cost to install control option #1 with an overall control reduction of 98% as compared to control option #2, which is the selected control option with an overall control reduction of 97% is \$722,402.

The \$/ton of NOx removed in control option #2 was based on the CPL uncontrolled PTE of 482 tons per year. However, most of the NOx emissions from the CPL are already being controlled or removed at 467.5 tons/yr by the existing APL scrubber. The existing APL scrubber is a series of chemical scrubbing columns with control efficiency of 98% and a capture system efficiency of 98.6% (overall control of 97%). It is not possible to move additional air flow into the scrubber to increase its overall control efficiency of 97% to 98%, because it is already operating at its maximum capacity. In order to provide additional scrubbing capacity, an entirely new system would need to be installed. IDEM has already determined that it is cost prohibitive to install a separate scrubber to control the CPL alone (option #1). Therefore, given that a new scrubber that is capable of controlling the CPL at 98% would be significantly smaller (5000 cfm) than a new scrubber that is capable of controlling both the APL and CPL at 98% (14,000 CFM), it has been determined that this option would be cost prohibitive as well.

It is shown that control option #2, which is the use of the existing APL scrubber, is the most cost effective in controlling the existing CPL at \$2,347/ton of NOx removed, and still meeting their NOx BACT limits.

#### Step 4: Selection of PSD BACT:

Even though control option #1 would achieve 98%, the incremental cost is high at \$722,402, and no other similar operation is required to control NOx at greater than 97%; therefore, 97% with the existing scrubber is considered BACT for the AK Steel CPL.

The following table is a list of other companies that perform pickling operation exclusively for stainless grade steel only:

**Pickling Operation:**

Post BACT Emission Limit	Operation	Control Technology	Company Name - Location	Permit Number - Issuance Date
Proposed: Continue to meet current combined (APL & CPL) limit of 175 ppmvd and 9.66 lbs/hr	Carbon and Stainless Steel Pickling	Existing scrubber controlling the APL and CPL	AK Steel Corporation – Rockport, Indiana	Proposed
Limit -100 ppmv and 9.61 lbs/hr	Stainless Steel Pickling Process	Scrubber -	North American Stainless – Carroll County, Kentucky	V-03-037- 12/1/03
100 ppmvd	Stainless Steel Wire Coil Pickling Process	Packed Tower Wet Scrubber -	Charter Steel – Fon du Lac, Wisconsin	00DCF040 – 8/2/00
Combined (APL & CPL) limit – 175 ppmvd and 9.66 lbs/hr	Anneal and Pickling Line (APL) and Continuous Pickling Line (CPL) for Carbon and Stainless Steel Pickling	Scrubber	AK Steel Corporation – Rockport, Indiana	PSD 147-6713-00041 2/13/97

The above BACT table shows that AK Steel BACT for NOx is comparable with the sources listed, with a limit of 175 ppmvd and 9.66 pounds per hour both for the CPL and APL. These limits were based on a combined stainless steel production rate of 606 tons per hour (130 tons per hour from the APL plus 476 tons per hour from the CPL), which is substantially higher than the production rates of North American Stainless and Charter Steel.

The NOx limits of 100 ppmvd and 9.61 pounds per hour for North American Stainless – Carroll County, Kentucky were based on a maximum production rate of 75 tons of stainless steel per hour, and the NOx limit of 100 ppm for Charter Steel – Fon du Lac, Wisconsin was based on a maximum production rate of 10 tons of steel per hour. Therefore, the BACT for AK Steel CPL process, will be the continued use of the existing APL scrubber.

**Step 5: NOx BACT Determination:**

The BACT determined for the Continuous Pickling Line (CPL) shall be as follows:

- (a) The continued use of the APL scrubber to control the CPL.
- (b) The CPL outlet NOx concentration combined with the APL outlet NOx concentration shall continue to be limited to 175 parts per million by volume dry (ppmvd).
- (c) The CPL NOx emissions combined with the APL NOx emissions shall be limited to 9.66 pounds per hour after control.