



Frank O'Bannon
Governor

Lori F. Kaplan
Commissioner

100 North Senate Avenue
P.O. Box 6015
Indianapolis, Indiana 46206-6015
(317) 232-8603
(800) 451-6027
www.in.gov/idem

**CONSTRUCTION PERMIT
OFFICE OF AIR QUALITY**

**AK Steel Corporation
Rockport Works
Rockport, Indiana 47635**

is hereby authorized to construct and operate

the equipment listed on Page 2 and 3 of this permit

This permit is issued to the above mentioned company (herein known as the Permittee) under the provisions of 326 IAC 2-1.1, 326 IAC 2-2, 40 CFR 52.780 and 40 CFR 52.124 (Prevention of Significant Deterioration), with conditions listed on the attached pages.

Construction Permit No.: CP 147-6713-00041	
Issued by: Paul Dubenetzky, Branch Chief Office of Air Quality	Issuance Date: February 13, 1997

First Construction Permit Amendment 147-9557-00041, Issued May 6, 1998
Second Construction Permit Amendment 147-9818-00041, Issued June 24, 1998
Third Construction Permit Amendment 147-10571-00041, Issued March 4, 1999

Construction Permit Amendment No.: CP 147-11471-00041	
Issued by: Paul Dubenetzky, Branch Chief Office of Air Quality Original signed by Paul Dubenetzky	Issuance Date: April 18, 2002

Continuous Anneal and Pickling Line (APL) with a maximum normal capacity of 130 tons per hour consisting of:

- (a) one (1) flattener,
- (b) one (1) shear,
- (c) one (1) laser welder,
- (d) one (1) leveller shear,
- (e) one (1) alkaline cleaner section exhausting through a wet scrubber system to Stack S06,
- (f) one (1) 110 million (MM)Btu per hour natural gas-fired annealing furnace section equipped with low-NOx burners with integral exhaust gas recirculation (or equivalent) exhausting to Stack S07A,
- (g) one (1) 55 MMBtu per hour natural gas-fired annealing furnace section equipped with low-NOx burners with integral exhaust gas recirculation (or equivalent) exhausting to Stack S07B,
- (h) one (1) air quench station consisting of 11 sections exhausting through a baghouse to Stack S08,
- (i) two (2) water quench sections,
- (j) one (1) enclosed shot blasting chamber exhausting through a baghouse to Stack S05,
- (k) electrolytic pickle and rinse tanks exhausting through a wet scrubber system to Stack S09A,
- (l) mixed acids pickle and rinse tanks exhausting through a multi-stage oxidation/reduction and acid neutralization scrubbing system to Stack S09B,
- (m) one (1) steam heated strip dryer,
- (n) skin pass temper mill exhausting through a baghouse to Stack S09C, and
- (o) one (1) tension/leveller and side trimmer;

Continuous Pickling Line (CPL) with a maximum normal capacity of 476 tons per hour consisting of:

- (a) one (1) strip leveller and (1) mechanical scale breaker exhausting to a baghouse to Stack S01,
- (b) one (1) laser welder and one (1) tension leveller,
- (c) three (3) HCl acid pickle and rinse tanks exhausting through a wet scrubber system to Stack S02,
- (d) one (1) steam heated pickle dryer,
- (e) one (1) shear/trimmer, and
- (f) one (1) electrostatic oiler;

Continuous Cold Mill (CCM) with a maximum normal capacity of 660 tons per hour consisting of:

- (a) one (1) strip leveller and one (1) shear,
- (b) one (1) laser welder,
- (c) five (5) cold reduction mills exhausting to one (1) mist elimination system to Stack S11, and
- (d) one (1) cold mill rotary shear and tension reels;

Temper Mill with a maximum normal capacity of 300 tons per hour consisting of:

- (a) one (1) temper mill exhausting to one (1) oil mist elimination system to Stack S16;

Continuous Galvanizing Line (CGL) with a maximum normal capacity of 183.6 tons per hour consisting of:

- (a) one (1) flattener,
- (b) one (1) mash seam welder,
- (c) alkaline cleaning system exhausting through a wet scrubber system to Stack S17,
- (d) one (1) 4.1 MMBtu/hour natural gas-fired cleaning section dryer,
- (e) one (1) 205.7 MMBtu/hr annealing furnace exhausting through a selective catalytic reduction (SCR) control system to Stack S18,
- (f) one (1) 7.0 MMBtu per hour natural gas-fired back-up galvanneal soak section burner,

- (g) one (1) 2.05 MMBtu per hour natural gas-fired preheater for the zinc pot equipment,
- (h) one (1) induction zinc premelt pot,
- (i) one (1) induction heated zinc coating pot,
- (j) one (1) 0.82 MMBtu per hour natural gas-fired edge burner,
- (k) one (1) water quench cooling section with a closed loop, recirculating water spray,
- (l) one (1) 4.1 MMBtu/hour natural gas-fired dryer,
- (m) one (1) skin pass temper mill and one (1) tension leveller,
- (n) one (1) chromate application system with one (1) roll coater,
- (o) one (1) 6.0 MMBtu/hour natural gas-fired dryer,
- (p) one (1) phosphate application system with one (1) roll coater,
- (q) one (1) 5.68 MMBtu/hour natural gas-fired dryer,
- (r) one (1) electrostatic oiler, and
- (s) one (1) rotary shear; and

Ancillary Equipment consisting of:

- (a) hydrogen batch annealing with fifteen (15) natural gas-fired furnaces with low-NOx burners rated at 6.75 MMBtu per hour exhausting through the roof monitor system in Building 500,
- (b) roll repair shop with two (2) chrome dip tanks exhausting through a mist eliminator system to Stack S15,
- (c) roll repair shop with two (2) electrodischarge texturing machines exhausting through a baghouse that vents to the building,
- (d) three (3) natural gas-fired 76.0 MMBtu per hour boilers with ultra low-NOx burners in boiler house No. 1 exhausting to Stack S03,
- (e) two (2) natural gas-fired 76.0 MMBtu per hour boilers with ultra low-NOx burners in boiler house No. 2 exhausting to Stack S20,
- (f) 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 per hour,
- (g) two (2) non-contact cooling towers with mist drift eliminator exhausting to the atmosphere,
- (h) storage tanks for HCl, nitric acid, and HF exhausting through a fume scrubber to Stack S04,
- (i) miscellaneous storage tanks for the continuous cold mill operation not to exceed an overall capacity of 353,000 gallons,
- (j) miscellaneous storage tanks for the temper mill and cold mill operation not to exceed an overall capacity of 131,000 gallons,
- (k) miscellaneous oil storage tanks for the continuous galvanizing line not to exceed an overall capacity of 16,250 gallons, and
- (l) miscellaneous oil storage tanks for the continuous pickling line not to exceed an overall capacity of 15,000 gallons.

Construction Conditions

General Construction Conditions

1. That the data and information supplied with the application shall be considered part of this permit. Prior to any proposed change in construction which may affect allowable emissions, the change must be approved by the Office of Air Quality (OAQ).
2. That this permit to construct does not relieve the permittee of the responsibility to comply with the provisions of the Indiana Environmental Management Law (IC 13-11 through 13-20; 13-22 through 13-25; and 13-30), the Air Pollution Control Law (IC 13-17) and the rules promulgated thereunder, as well as other applicable local, state, and federal requirements.

Effective Date of the Permit

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

Source Obligation

4. That pursuant to 326 IAC 2-2-8 (Source Obligation), the Commissioner may revoke this permit if construction is not commenced within eighteen (18) months or if the construction is not completed within a reasonable time. The time may be extended eighteen months upon satisfactorily showing that an extension is justified.
5. That notwithstanding Construction Condition No. 6, all requirements and conditions of this construction permit shall remain in effect unless modified in a manner consistent with procedures established for modifications of construction permits pursuant to 326 IAC 2 (Permit Review Rules).

First Time Operation Permit

6. That this document shall also become a first-time operation permit pursuant to 326 IAC 2-1-4 (Operating Permits) when, prior to start of operation, the following requirements are met:
- (a) The attached affidavit of construction shall be submitted to the Office of Air Quality (OAQ), Permit Administration & Development Section, verifying that the facilities were constructed as proposed in the application. The facilities covered in the Construction Permit may begin operating on the date the Affidavit of Construction is postmarked or hand delivered to IDEM.
 - (b) If construction is completed in phases; i.e., the entire construction is not done continuously, a separate affidavit must be submitted for each phase of construction. Any permit conditions associated with operation start up dates such as stack testing for New Source Performance Standards (NSPS) shall be applicable to each individual phase.
 - (c) Permittee shall receive an Operation Permit Validation Letter from the Chief of the Permit Administration & Development Section and attach it to this document.
 - (d) The operation permit will be subject to annual operating permit fees pursuant to 326 IAC 2-1-7.1(Fees).
 - (e) Pursuant to 326 IAC 2-7-4, the permittee shall apply for a Title V operating permit within twelve (12) months after the source becomes subject to Title V. This 12-month period starts at the postmarked submission date of the Affidavit of Construction. If the construction is completed in phases, the 12-month period starts at the postmarked submission date of the Affidavit of Construction that triggers the Title V applicability. The operation permit issued shall contain as a minimum the conditions in the Operation Conditions section of this permit.

NSPS Reporting Requirement

7. That pursuant to the New Source Performance Standards (NSPS), Part 60.7, the source owner/operator is hereby advised of the requirement to report the following at the appropriate times:
- (a) Commencement of construction date (no later than 30 days after such date);
 - (b) Anticipated start-up date (not more than 60 days or less than 30 days prior to such date);
 - (c) Actual start-up date (within 15 days after such date); and
 - (d) Date of performance testing (at least 30 days prior to such date), when required by a condition elsewhere in this permit.

Reports are to be sent to:

**Compliance Data Section, Office of Air Quality
100 North Senate Avenue, P. O. Box 6015
Indianapolis, IN 46206-6015**

The application and enforcement of these standards have been delegated to the IDEM-OAQ. The requirements of 40 CFR Part 60 are also federally enforceable.

8. That when the facility is constructed and placed into operation the following operation conditions shall be met:

Operation Conditions

General Operation Conditions

1. That the data and information supplied in the application shall be considered part of this permit. Prior to any change in the operation which may result in an increase in allowable emissions exceeding those specified in 326 IAC 2-1-1 (Construction and Operating Permit Requirements), the change must be approved by the Office of Air Quality (OAQ).
2. That the permittee shall 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.

Preventive Maintenance Plan

3. That pursuant to 326 IAC 1-6-3 (Preventive Maintenance Plans), AK Steel Corporation shall prepare and maintain a preventive maintenance plan, including the following information:
 - (a) Identification of the individual(s) responsible for inspecting, maintaining, and repairing emission control devices.
 - (b) A description of the items or conditions that will be inspected and the inspection schedule for said items or conditions.
 - (c) Identification of the replacement parts which will be maintained in inventory for quick replacement.

The preventive maintenance plan shall be submitted to IDEM, OAQ upon request and shall be subject to review and approval.

Transfer of Permit

4. That pursuant to 326 IAC 2-1-6 (Transfer of Permits):
 - (a) In the event that ownership of this steel coil finishing plant is changed, AK Steel Corporation shall notify OAQ, Permit Branch, within thirty (30) days of the change. Notification shall include the date or proposed date of said change.
 - (b) The written notification shall be sufficient to transfer the permit from AK Steel Corporation to the new owner.

(c) The OAQ shall reserve the right to issue a new permit.

Permit Revocation

5. That pursuant to 326 IAC 2-1-9(a)(Revocation of Permits), this permit to construct and operate may be revoked for any of the following causes:
- (a) Violation of any conditions of this permit.
 - (b) Failure to disclose all the relevant facts, or misrepresentation in obtaining this permit.
 - (c) Changes in regulatory requirements that mandate either a temporary or permanent reduction of discharge of contaminants. However, the amendment of appropriate sections of this permit shall not require revocation of this permit.
 - (d) Noncompliance with orders issued pursuant to 326 IAC 1-5 (Episode Alert Levels) to reduce emissions during an air pollution episode.
 - (e) For any cause which establishes in the judgment of IDEM, the fact that continuance of this permit is not consistent with purposes of 326 IAC 2-1 (Permit Review Rules).

Availability of Permit

6. That a copy of this permit shall be available on the premises of the source.

Annual Emission Reporting

7. That pursuant to 326 IAC 2-6 (Emission Reporting), the owner/operator of AK Steel Corporation must annually submit an emission statement for the facility. This statement must be received by July 1 of each year and must comply with the minimum requirements specified in 326 IAC 2-6-4. A copy of this rule is enclosed. The annual statement must be submitted to:

**Data Support Section, Office of Air Quality
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015**

The annual emission statement covers the twelve (12) consecutive month time period starting January 1 and ending December 31.

Performance Testing

8. That pursuant to 326 IAC 2-1-3 (Construction and Operating Permit Requirements) compliance stack tests shall be performed for the following facilities:
- (a) Required Compliance Stack Tests for NO_x Emissions:
 - (1) Stack S03 from the three (3) 76.0 MMBtu per hour package boilers,
 - (2) Stack S20 from the two (2) 76.0 MMBtu per hour package boilers,
 - (3) Stacks S07A and S07B from the APL annealing furnace sections to be tested concurrently
 - (4) Stack S18 from the 205.7 MMBtu per hour CGL annealing furnace SCR system, and
 - (5) Stack S09B from the APL mixed acids pickling and final rinse multi-stage scrubber system.
 - (b) Required Compliance Stack Tests for PM/PM₁₀ Emissions:

- (1) Stack S06 from the APL alkaline cleaning bath wet scrubber system,
- (2) Stack S08 from the APL air quench station baghouse,
- (3) Stack S09A from the APL electrolytic pickling scrubber,
- (4) Stack S09B from the APL mixed acid pickling and rinse multi-stage scrubber system,
- (5) Stack S09C from the APL skin pass temper mill baghouse,
- (6) Stack S01 from the CPL scale breaker baghouse,
- (7) Stack S02 from the three (3) CPL HCl pickle and rinse wet scrubber system,
- (8) Stack S17 from the CGL alkaline cleaner wet scrubber system,
- (9) Stack S15 from the electrolytic chrome dip tank mist eliminator system,
- (10) Stack S16 from the temper mill mist eliminator system, and
- (11) Stack S11 from the continuous cold mill mist eliminator system.

Reference to particulate matter in the operation conditions of this permit, with the exception of fugitive particulate matter, shall mean total particulate matter consisting of PM and PM₁₀, as measured as the sum of filterable and condensable emissions using methods approved by the department.

(c) Required Compliance Stack Tests for Total Chromium Emissions:

- (1) Stack S15 from the electrolytic chrome dip tank mist eliminator system.

(d) The OAQ reserves the right to test any emissions unit for any pollutant in the future, if warranted.

Each stack test shall be performed within 60 days after achieving maximum production rate, but no later than 180 days after initial start-up. These tests shall be performed according to 326 IAC 3-2.1 (Source Sampling Procedures) using the methods specified in the rule or as approved by the Commissioner. The following procedures shall be met:

- (a) A test protocol shall be submitted to the OAQ, Compliance Data Section, 35 days in advance of the test.
- (b) The Compliance Data Section shall be notified of the actual test date at least two (2) weeks prior to the date.
- (c) All test reports must be received by the Compliance Data Section within 45 days of completion of the testing.
- (d) Whenever the results of the stack test performed exceed the level specified in this permit, appropriate corrective actions shall be implemented within thirty (30) days of receipt of the test results. These corrective actions shall be implemented immediately unless notified by OAQ that they are not acceptable. The Permittee shall minimize emissions while the corrective actions are being implemented. OAQ reserves the right to utilize enforcement activities to resolve the noncompliant stack test(s).
- (e) A second test to demonstrate compliance shall be performed within 120 days. Failure of the second test to demonstrate compliance may be grounds for immediate revocation of this permit to operate the affected facility.

Malfunction Condition

9. That pursuant to 326 IAC 1-6-2 (Records; Notice of Malfunction):

- (a) A record of all malfunctions, including startups or shutdowns of any facility or emission control equipment, which result in violations of applicable air pollution control regulations or applicable emission limitations shall be kept and retained for a period of three (3) years and shall be made available to the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ) or appointed representative upon request.
- (b) When a malfunction of any facility or emission control equipment occurs which lasts more than one (1) hour, said condition shall be reported to OAQ, using the Malfunction Report Forms (2 pages). Notification shall be made by telephone or facsimile, as soon as practicable, but in no event later than four (4) daytime business hours after the beginning of said occurrence.
- (c) Failure to report a malfunction of any emission control equipment shall constitute a violation of 326 IAC 1-6, and any other applicable rules. Information of the scope and expected duration of the malfunction shall be provided, including the items specified in 326 IAC 1-6-2(a)(1) through (6).
- (d) Malfunction is defined as any sudden, unavoidable failure of any air pollution control equipment, process, or combustion or process equipment to operate in a normal and usual manner. [326 IAC 1-2-39]

Baghouse Operating Condition

10. That upon startup, each baghouse shall be operated at all times when its associated facility is in operation as identified below:

APL air quench station,
APL shot blasting chamber,
APL skin pass temper mill operation,
CPL strip leveller and mechanical scale breaker, and
Electrodischarge texturing machines.

- (a) The permittee shall record the total static pressure drop across the baghouses, at least once per day. Unless operated under conditions for which the Preventive Maintenance Plan specifies otherwise, the pressure drop across the baghouses shall be maintained within the range of 1.5 and 5.0 inches of water. The Preventive Maintenance Plan for these baghouses shall contain troubleshooting contingency and corrective actions for when the pressure reading is outside of this range for any one reading.
- (b) The instrument used for determining the pressure shall be subject to approval by IDEM, OAQ, and shall be calibrated at least once every six (6) months.
- (c) The gauge employed to take the pressure drop across the baghouses 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 $\pm 2\%$ of full scale reading. The instrument shall be quality assured and maintained as specified by the vendor.
- (d) An inspection shall be performed each calendar quarter for all baghouses. Defective bags shall be replaced. A record shall be kept of the results of the inspection and the number of bags replaced.
- (e) In the event that a bag's failure has been observed:

- (1) The process associated with the affected compartments will be shut down immediately until the failed units have been repaired or replaced.
 - (2) 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.
- (f) These records shall be kept for at least the past 36 month period and made available upon request to the Office of Air Quality (OAQ).

Scrubber Operating Condition

11. That upon startup, each scrubber shall be operated at all times when its associated facility is in operation as identified below:

APL alkaline cleaner section,
APL electrolytic pickle and rinse tanks,
APL mixed acids pickle and rinse tanks,
CPL HCl pickle and rinse tanks,
CGL alkaline cleaning system, and
HCl, nitric acid and HF storage tanks.

- (a) The permittee shall record the pH of the scrubbing liquid (if applicable), pressure drop and scrubbing liquid flow rate of the scrubber at least once per day. The Preventive Maintenance Plan for the scrubber shall contain troubleshooting contingency and corrective actions for when the pH, pressure drop, and scrubbing liquid flow rate are outside of the normal range for any one reading.
- (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.
- (c) The gauge employed to take the pressure drop across the scrubber 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 $\pm 2\%$ of full scale reading. The instrument shall be quality assured and maintained as specified by the vendor.
- (d) An inspection shall be performed each calendar quarter of the scrubber. Defective scrubber components shall be replaced. A record shall be kept of the results of the inspection and the number of scrubber components replaced.
- (e) In the event that a scrubber's failure has been observed:
 - (1) The process associated with the affected unit will be shut down immediately until the failed unit has been repaired or replaced.
 - (2) 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.
- (f) The permittee shall submit vendor specifications for each scrubber and shall include operating parameters for pH of the scrubbing liquid (if applicable), pressure drop and scrubbing liquid flow rate. The permittee may use another method approved by the Commissioner to establish the operating parameters in lieu of vendor specifications. The operating parameters for the electrolytic chrome dip

tank scrubber shall be determined in accordance with the provisions of 40 CFR 63, Subpart N. This information shall be submitted to the:

**Compliance Data Section, Office of Air Quality
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015**

at least 35 days prior to performance testing. Once the operating parameters are established, they shall become part of the Preventive Maintenance Plan.

- (g) These records shall be kept for at least the past 36 month period and made available upon request to the Office of Air Quality (OAQ).

Mist Eliminator Operating Condition

12. That upon startup, each mist elimination system shall be operated at all times when its associated facility is in operation as identified below:

Electrolytic chrome dip tank,
CCM cold reduction mill, and
Temper mill operation.

- (a) The permittee shall record the pressure drop of the mist eliminator at least once per day. The Preventive Maintenance Plan for the mist eliminator shall contain troubleshooting contingency and corrective actions for when the pressure drop readings are outside of the normal range for any one reading.
- (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.
- (c) The gauge employed to take the pressure drop across the mist eliminator 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 $\pm 2\%$ of full scale reading. The instrument shall be quality assured and maintained as specified by the vendor.
- (d) An inspection shall be performed each calendar quarter of the mist eliminator. Defective mist eliminator components shall be replaced. A record shall be kept of the results of the inspection and the number of mist eliminator components replaced.
- (e) In the event that a mist eliminator's failure has been observed:
- (1) The affected unit will be shut down immediately until the failed unit has been repaired or replaced.
 - (2) 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.
- (f) The permittee shall submit vendor specifications for each mist eliminator and shall include operating parameters for pressure drop. The permittee may use another method approved by the Commissioner to establish the operating parameters in lieu of vendor specifications. This information shall be submitted to the:

**Compliance Data Section, Office of Air Quality
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015**

at least 35 days prior to performance testing. Once the operating parameters are established, they shall become part of the Preventive Maintenance Plan.

- (g) These records shall be kept for at least the past 36 month period and made available upon request to the Office of Air Management (OAQ).

Visible Emission Notations

13. That visible emission notations of all exhaust to the atmosphere from:

Stack S06 from the wet scrubber system,
Stack S08 from the baghouse,
Stack S09A from the scrubber system,
Stack S09B from the multi-stage scrubber system,
Stack S09C from the baghouse,
Stack S01 from the baghouse,
Stack S02 from the wet scrubber system,
Stack S17 from the wet scrubber system, and
Stack S15 from the mist eliminator system,

shall be performed once per working shift (during daylight hours). A trained employee will record whether emissions are normal or abnormal.

- (a) For processes operated continuously, "normal" visible emission notations mean those conditions prevailing, or expected to prevail, 80% of the time the process is in operation, not counting start up or shut down time.
- (b) In the case of batch or discontinuous operation, notations shall be taken during that part of the operation specified in the facility's specific condition prescribing visible emissions.
- (c) 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 and abnormal visible emissions for that specific process.
- (d) The Preventive Maintenance Plan for these facilities shall contain troubleshooting contingencies and corrective actions for when an abnormal emission is observed.
- (e) These records shall be kept for at least a 12 month period and made available upon request to the Office of Air Quality (OAQ).

BACT Condition

14. That pursuant to 326 IAC 2-2-3 (Best Available Control Technology), visible emissions from the source shall not exceed an average of five (5) percent opacity in 24 consecutive readings.

A certified visible emissions reader shall conduct and record observations in accordance with 40 CFR 60, Appendix A, Method 9, once per working shift (during daylight hours) for 12 minutes during each observation period for the following stacks:

Stack S11 from the continuous cold mill mist eliminator system, and
Stack S16 from the temper mill mist eliminator system.

These records shall be kept for at least the past 36 month period and made available upon request to the Office of Air Quality (OAQ). A Preventive Maintenance Plan for these facilities shall contain troubleshooting contingencies and corrective actions for when the opacity exceeds an average of five (5) percent opacity in 24 consecutive readings.

Fugitive Dust Emissions

15. That pursuant to 326 IAC 6-4 (Fugitive Dust Emissions), if fugitive dust is visible crossing the boundary or property line of the source, the source is in violation of this fugitive dust rule. Observations of visible emissions crossing the property line of the source at or near ground level must be made by a qualified representative of IDEM. [326 IAC 6-4-5(c)].

Fugitive Particulate Matter Emissions

16. (a) That pursuant to 326 IAC 6-5 (Fugitive Particulate Matter Emissions Limitations), fugitive particulate matter emissions shall be controlled according to the plan attached. AK Steel Corporation shall meet each of the following conditions:
- (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 every 14 days to control PM10 emissions to no more than 3 tons per year and PM emissions to no more than 15 tons per year, and
 - (3) silt surface loading shall not exceed 16.8 pounds of silt per mile.
- (b) 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.
- (c) 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.
17. That the permittee shall not burn any material except as provided in 326 IAC 4-1-3, 326 IAC 4-1-4 or 326 IAC 4-1-6.

18. That pursuant to 326 IAC 2-2 and 40 CFR 52.21, 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 this rule.
19. That pursuant to 326 IAC 20 and 40 CFR 63, Subpart A, the emissions of hazardous air pollutants (HAP) from the entire source shall be less than 10 tons per 365 day period for any individual HAP or 25 tons per 365 day period of any combination of HAPs.

BACT Condition

20. That pursuant to 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.
 - (c) The VOC content of any prelude oil employed shall not exceed 0.8 pounds of VOC per gallon of oil, excluding water and exempt solvents.
 - (d) The oils used at the facility shall contain no hazardous air pollutants (HAPs) as defined in 326 IAC 14-1-2 and 40 CFR 61.02 and 61.03.

BACT Condition

21. That pursuant to 326 IAC 2-2-3 (Best Available Control Technology), the processes of the continuous annealing and pickling line (APL) shall be limited as follows:
 - (a) The alkaline cleaner shall be enclosed and maintained under negative pressure. The filterable particulate matter (PM/PM₁₀) generated from this process shall be controlled by a wet scrubber system. Total particulate matter (including condensable PM₁₀) shall not exceed 0.0044 grains per dscf and 0.377 pounds per hour. The OAQ may revise this permit to adjust the total PM/PM₁₀ limitation based upon the results of stack test required in Condition 8(b). 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.
 - (b) The 110 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 shall be controlled by ultra low-NOx burners with integral exhaust gas recirculation (or equivalent). The outlet nitrogen oxide loading for each section shall not exceed 0.040 pounds per MMBtu. The nitrogen oxide emissions from the two sections of the annealing furnace shall not exceed 4.4 and 2.2 pounds per hour respectively.
 - (c) 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 year. 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) The filterable particulate matter (PM/PM₁₀) generated from the air quench station shall be controlled by a baghouse. Total particulate matter (including condensible PM₁₀) shall not exceed 0.005 grains per dscf and 1.41 pounds per hour. The OAQ may revise this permit to adjust the total PM/PM₁₀ limitation based upon the results of stack test required in Condition 8(b). 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.
- (e) 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 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.
- (f) The filterable particulate emissions (PM/PM₁₀) generated from the electrolytic pickling section shall be controlled by a wet scrubber system. 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. Total particulate matter (including condensible PM₁₀) shall not exceed 0.0093 grains per dscf and 0.77 pounds per hour. The OAQ may revise this permit to adjust the total PM/PM₁₀ limitation based upon the results of stack test required in Condition 8(b). 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.
- (g) The mixed acid pickle and rinse tanks shall be enclosed and maintained under negative pressure. The filterable particulate matter (PM/PM₁₀) and the nitrogen oxide generated from this process shall be controlled by a wet scrubber system.
 - (1) The outlet nitrogen oxide loading shall not exceed 175 ppmvd and the nitrogen oxide emissions shall not exceed 9.66 pounds per hour.
 - (2) 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 PM₁₀) shall not exceed 0.0060 grains per dscf and 0.28 pounds per hour. The OAQ may revise this permit to adjust the total PM/PM₁₀ limitation based upon the results of stack test required in Condition 8(b). 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.
- (h) The strip dryer shall only use steam heat.
- (i) The filterable particulate matter (PM/PM₁₀) generated from the skin pass temper mill shall be controlled by a baghouse. Total particulate matter (including condensible PM₁₀) shall not exceed 0.0066 grains per dscf and 0.459 pounds per hour. The OAQ may revise this permit to adjust the total PM/PM₁₀ limitation based upon the results of stack test required in Condition 8(b). 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.

BACT Condition

22. That pursuant to 326 IAC 2-2-3 (Best Available Control Technology), the processes of the continuous pickling line (CPL) shall be limited as follows:
- (a) The 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. Total particulate matter (including condensible PM₁₀) shall not exceed 0.0076 grains per dscf and 3.69 pounds per hour. The OAQ may revise this permit to adjust the total PM/PM₁₀ limitation based upon the results of stack test required in Condition 8(b). 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.

- (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. Total particulate matter (including condensible PM₁₀) shall not exceed 0.0091 grains per dscf and 0.61 pounds per hour. The OAQ may revise this permit to adjust the total PM/PM₁₀ limitation based upon the results of stack test required in Condition 8(b). 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.
- (c) The pickling line dryer shall only use steam heat.
- (d) The rust Preventive oils shall be applied to the metal strips electrostatically.

BACT Condition

23. That pursuant to 326 IAC 2-2-3 (Best Available Control Technology), the five-stand continuous 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. Total particulate matter (including condensible PM₁₀) shall not exceed 0.0087 grains per dscf and 16.1 pounds per hour. The OAQ may revise this permit to adjust the total PM/PM₁₀ limitation based upon the results of stack test required in Condition 8(b). 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.

BACT Condition

24. That pursuant to 326 IAC 2-2-3 (Best Available Control Technology), the processes of the continuous galvanizing line (CGL) shall be limited as follows:
- (a) The alkaline cleaning baths and rinse tanks shall be enclosed and maintained under negative pressure. The filterable particulate matter (PM/PM₁₀) 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 0.0022 grains per dscf and 0.125 pounds per hour. Total particulate matter (including condensible PM₁₀) 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 stack test required in Condition 8(b). 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.
 - (b) The 4.10 MMBtu per hour cleaning section dryer shall only use natural gas.

- (c) The 205.7 MMBtu/hr annealing and induction heating galvannealing furnace shall be controlled by a selective catalytic reduction control (SCR). The outlet nitrogen oxide loading shall not exceed 0.06 pounds per MMBtu. The nitrogen oxide emissions shall not exceed 12.3 pounds per hour.
- (d) The 7.0 MMBtu per hour galvanized soak section backup burner shall only use natural gas.
- (e) The 2.05 MMBtu per hour preheater for the zinc pot equipment shall only use natural gas.
- (f) The induction zinc premelt pot and induction zinc coating pot shall be heated by electricity.
- (g) The 0.82 MMBtu per hour edge burners shall only use natural gas.
- (h) The 4.1 MMBtu per hour galvanizing line dryer shall only use natural gas.
- (i) The 6.0 MMBtu per hour chromate application system dryer shall only use natural gas.
- (j) The 5.68 MMBtu per hour phosphate application with roll coaters dryer shall only use natural gas.
- (k) The rust Preventive oils shall be applied to the metal strips electrostatically.

BACT Condition

25. That pursuant to 326 IAC 2-2-3 (Best Available Control Technology), the filterable particulate matter (PM/PM₁₀) generated from the temper mill shall be controlled by a mist eliminator. Total particulate matter (including condensable PM₁₀) shall not exceed 0.010 grains per dscf and 5.71 pounds per hour. The OAQ may revise this permit to adjust the total PM/PM₁₀ limitation based upon the results of stack test required in Condition 8(b). 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.

BACT Condition

26. That 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. The outlet nitrogen oxide loading shall not exceed 0.1 pounds per MMBtu. The nitrogen oxide emissions shall not exceed 9.45 pounds per hour.

BACT Condition

27. That pursuant to 326 IAC 2-2-3 (Best Available Control Technology), the particulate matter generated, measured as chromium, from the electrolytic chrome dip tank located in the roll repair shop shall be controlled by a mist eliminator system. The outlet grain loading shall not exceed 6.6×10^{-6} grains per dscf.

Chromium NESHAP

28. (a) That pursuant to 326 IAC 20 and 40 CFR 63, Subpart N (National Emission Standards for Chromium Emissions from Hard and Decorative Chromium Electroplating and Chromium Anodizing Tanks), the two (2) electrolytic chrome dip tanks located in the roll repair shop are subject to the hard chromium standards stated in this rule. The total chromium emissions from Stack S15 of the electrolytic chrome dip tanks shall not exceed 0.0000066 grains per dscf pursuant to 40 CFR 63.342(c)(1)(i).
- (b) 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 electrolytic chrome dip tanks 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.

- (c) 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):
 - (i) 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.
 - (ii) 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.
 - (iii) Quarterly visual inspections of the ductwork from the tank to the control device to ensure there are no leaks.
 - (iv) 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 tank, 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.
 - (5) 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, as the OMP, provided the alternative plans meet the above listed criteria.
 - (6) 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.
 - (7) If actions taken by the Permittee during periods of malfunction or periods 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.

- (8) 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.
- (d) The following work practice standards apply to the electrolytic chrome dip tanks:
- (1) 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 in Operation Condition 28(c).
 - (2) Malfunctions and excess emissions shall be corrected as soon as practicable after their occurrence in accordance with the OMP required above.
 - (3) These operation and maintenance requirements are enforceable independent of emissions limitations or other requirements in this section.
 - (4) 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.
 - (5) Based on the results of a determination made under Operation Condition 28(d)(4), IDEM, OAQ may require that the Permittee make changes to the OMP. Revisions may be required if IDEM, OAQ finds that the plan:
 - (i) Does not address a malfunction or period of excess emissions that has occurred;
 - (ii) 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
 - (iii) Does not provide adequate procedures for correcting malfunctioning process equipment, composite mesh-pad, monitoring equipment or other causes of excess emissions as quickly as practicably

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.

- (e) A performance test demonstrating initial compliance for the electrolytic chrome dip tanks was performed on January 20, 1999.
- (1) 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.
 - (2) 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 electrolytic chrome dip tanks are in compliance. If testing is required by the IDEM, compliance with the limit specified in this operation condition and Operation Condition 27 shall be determined by a performance test conducted in accordance with 40 CFR 63.344 and Operation Condition 8.
 - (3) 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 Operation Condition 8.
- (f) Pursuant to 40 CFR 63.343(c)(1)(ii), when using a composite mesh-pad system to comply with the limit specified in Operation Condition 28(a), the Permittee shall monitor and record the pressure drop across the composite mesh-pad system during tank operation once each day that the hard chromium electroplating tank is operating. To be in compliance with the standards, the composite mesh-pad system shall be operated within ± 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.
- 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.
- (g) The Permittee shall maintain records to document compliance with Operation Condition 27, Operation Condition 28(a) and Operation Condition 28(b). These records shall include a minimum of the following:
- (1) 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 Operation Condition 28(c) and Operation Condition 28(f) have taken place. The record can take the form of a checklist and should identify the following:
 - (i) The device inspected;
 - (ii) The date of inspection;

- (iii) A brief description of the working condition of the device during the inspection, including any deficiencies found; and
 - (iv) Any actions taken to correct deficiencies found during the inspection, including the date(s) such actions were taken.
- (2) Records of all maintenance performed on the electrolytic chrome dip tank, the mist eliminator and monitoring equipment.
 - (3) Records of the occurrence, duration, and cause (if known) of each malfunction of the electrolytic chrome dip tank, the composite mesh-pad system and monitoring equipment.
 - (4) Records of the occurrence, duration, and cause (if known) of each period of excess emissions of the electrolytic chrome dip tank, the composite mesh-pad system and monitoring equipment as indicated by monitoring data collected in accordance with this condition.
 - (5) Records of actions taken during periods of malfunction or excess emissions when such actions are inconsistent with the OMP.
 - (6) Other records, which may take the form of checklists, necessary to demonstrate consistency with the provisions of the OMP.
 - (7) Test reports documenting results of all performance tests.
 - (8) All measurements as may be necessary to determine the conditions of performance tests, including measurements necessary to determine compliance.
 - (9) 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.
 - (10) The total process operating time, as defined in Operation Condition 28(f), of each tank, during the reporting period.
 - (11) 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.
 - (12) All documentation supporting the notifications and reports required by 40 CFR 63.9 and 63.10 (Subpart A, General Provisions) and by Operation Condition 28(h).
- (h) The notifications and reports required in this section shall be submitted to IDEM, OAQ using the following address:

Compliance Data Section, Office of Air Quality
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

- (1) Notification of Compliance Status (NCS):

- (i) 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.

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

- (ii) The NCS for each tank shall be submitted to IDEM, OAQ no later than forty-five (45) days following completion of the compliance demonstration.

(2) Notification of Construction or Reconstruction

- (i) 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 tank without submitting a Notification of Construction or Reconstruction (NCR) to IDEM, OAQ.
- (ii) The NCR shall contain the information identified in 40 CFR 63.345(b) (2) and (3).
- (iii) 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 ductwork 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].
- (iv) 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.
- (v) Pursuant to 326 IAC 2-1.1-2(a), permission must be received from IDEM, OAQ before construction, modification, or reconstruction may commence.

(3) Performance Test Results

- (i) The Permittee shall document results from any future performance tests in a complete test report that contains the information required in 40 CFR 344(a).
- (ii) 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.

(4) Ongoing Compliance Status Report

- (i) The Permittee shall prepare summary reports to document the ongoing compliance status of the electrolytic chrome dip tank 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).

- (ii) Because the electrolytic chrome dip tanks are located at 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.
- (iv) The Ongoing Compliance Status Report shall be completed according to the following schedule except as provided in Operation Condition 28(h)(5).
 - (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.
- (5) If both of the following conditions are met, semiannual reports shall be prepared and submitted to IDEM, OAQ:
 - (i) 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 Operation Condition 28(f) for the reporting period; and
 - (ii) 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 Operation Condition 28(f).

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

BACT Condition

29. That pursuant to 326 IAC 2-2-3 (Best Available Control Technology), the particulate matter generated from the electrodischarge texturing machines 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.

BACT Condition

30. That pursuant to 326 IAC 2-2-3 (Best Available Control Technology), the three (3) 76.0 MMBtu per hour package boilers located in Boiler House No. 1 shall use only natural gas and shall be equipped with ultra low NOx burners. The total outlet nitrogen oxide loading from the boilers shall not exceed 0.04 pounds per MMBtu. The nitrogen oxide emissions from Stack S03 shall not exceed 9.12 pounds per hour.

BACT Condition

31. That pursuant to 326 IAC 2-2-3 (Best Available Control Technology), the two (2) 76.0 MMBtu per hour package boilers located in Boiler House No. 2 shall use only natural gas and shall be equipped with ultra low NOx burners. The outlet nitrogen oxide loading from the boiler shall not exceed 0.04 pounds per MMBtu. The nitrogen oxide emissions from Stack S20 shall not exceed 6.08 pounds per hour.

NSPS Condition

32. That pursuant to 326 IAC 12 and 40 CFR Part 60.40c, Subpart Dc (Standard of Performance for Small Industrial-Commercial-Institutional Steam Generating units), the natural gas usage of the five (5) 76.0 MMBtu per hour package boilers shall be recorded and maintained as required in NSPS 60.48c(g)a. A copy of this rule is enclosed.
33. That pursuant to 326 IAC 2-1-3 (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.

BACT Condition

34. That 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 outlet grain loading from the drift eliminators shall not exceed 0.005 percent drift.

BACT Condition

35. That pursuant to 326 IAC 2-2-3 (Best Available Control Technology), the storage tanks for 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.

NSPS Condition

36. That 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. A copy of this rule is enclosed.

Selective Catalytic Reduction System Operating Condition

37. 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.
- (a) The permittee shall record the ammonia flow rate and inlet duct temperature of the SCR at least once per day. The Preventive Maintenance Plan for the SCR shall contain troubleshooting contingency and corrective actions for when the ammonia flow rate and inlet duct temperature are outside of the normal range for any one reading.
 - (b) The instruments used for determining the ammonia flow rate and inlet duct temperature of the

control device shall be subject to approval by IDEM, OAQ, and shall be calibrated at least once every six (6) months.

- (c) An inspection shall be performed each calendar quarter of the SCR. Defective SCR components shall be replaced. A record shall be kept of the results of the inspection and the number of SCR components replaced.
- (d) In the event that the SCR's failure has been observed:
 - (1) The affected unit will be shut down immediately until the failed unit has been repaired or replaced.
 - (2) 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.
- (e) The permittee shall submit vendor specifications for the SCR and shall include operating parameters for ammonia flow rate and inlet duct temperature. The permittee may use another method approved by the Commissioner to establish the operating parameters in lieu of vendor specifications. This information shall be submitted to the:

**Compliance Data Section, Office of Air Quality
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015**

at least 35 days prior to performance testing. Once the operating parameters are established, they shall become part of the Preventive Maintenance Plan.

- (f) These records shall be kept for at least the past 36 month period and made available upon request to the Office of Air Quality (OAQ).

Continuous Emissions Monitoring

38. That AK Steel shall continuously monitor and record NOx emissions from the SCR control unit in accordance with 326 IAC 3-1.1.

- (a) The continuous monitoring system shall be installed and operational prior to conducting the performance test for the 205.7 MMBtu/hr annealing furnace controlled by an SCR unit. The permittee shall submit a monitoring protocol to the:

**Compliance Data Section, Office of Air Quality
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015**

within 60 days after achieving the maximum production rate at which the affected facility will be operated, but no later than 180 days after initial startup of the 205.7 MMBtu/hr annealing furnace. Verification of operational status shall, as a minimum, include completion of the manufacturer's written requirements or recommendations for installation, operation, and calibration of the device.

- (b) A written report of excess emissions from the continuous monitoring system shall be submitted each calendar quarter to the:

Compliance Data Section, Office of Air Quality
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015

within 30 days following the end of each calendar quarter. Pursuant to 326 IAC 3-1.1-3, 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.

MALFUNCTION REPORT

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
FAX NUMBER - 317 233-5967**

This form should only be used to report malfunctions applicable to Rule 326 IAC 1-6 and to qualify for the exemption under 326 IAC 1-6-4.

THIS FACILITY MEETS THE APPLICABILITY REQUIREMENTS BECAUSE: IT HAS POTENTIAL TO EMIT 25 LBS/HR _____ PM
_____, VOC _____, SO2 _____ CO _____ NOx _____ OR ANY OTHER POLLUTANT _____
EMISSIONS FROM MALFUNCTIONING CONTROL EQUIPMENT OR PROCESS EQUIPMENT CAUSED EMISSIONS IN EXCESS
OF APPLICABLE LIMITATION _____.

THIS MALFUNCTION RESULTED IN A VIOLATION OF: 326 IAC _____ OR, PERMIT CONDITION # _____ AND/OR PERMIT
LIMIT OF _____

THIS INCIDENT MEETS THE DEFINITION OF 'MALFUNCTION' AS LISTED ON REVERSE SIDE ? Y N

THIS MALFUNCTION IS OR WILL BE LONGER THAN THE ONE (1) HOUR REPORTING REQUIREMENT ? Y N

COMPANY: _____ PHONE NO. () _____

LOCATION: (CITY AND COUNTY) _____

PERMIT NO. _____ AFS PLANT ID: _____ AFS POINT ID: _____ INSP: _____

CONTROL/PROCESS DEVICE WHICH MALFUNCTIONED AND REASON: _____

DATE/TIME MALFUNCTION STARTED: ____/____/19____ _____ AM / PM

ESTIMATED HOURS OF OPERATION WITH MALFUNCTION CONDITION: _____

DATE/TIME CONTROL EQUIPMENT BACK-IN SERVICE ____/____/19____ _____ AM/PM

TYPE OF POLLUTANTS EMITTED: TSP, PM-10, SO2, VOC, OTHER: _____

ESTIMATED AMOUNT OF POLLUTANT EMITTED DURING MALFUNCTION: _____

MEASURES TAKEN TO MINIMIZE EMISSIONS: _____

REASONS WHY FACILITY CANNOT BE SHUTDOWN DURING REPAIRS:

CONTINUED OPERATION REQUIRED TO PROVIDE ESSENTIAL* SERVICES: _____

CONTINUED OPERATION NECESSARY TO PREVENT INJURY TO PERSONS: _____

CONTINUED OPERATION NECESSARY TO PREVENT SEVERE DAMAGE TO EQUIPMENT: _____

INTERIM CONTROL MEASURES: (IF APPLICABLE) _____

MALFUNCTION REPORTED BY: _____ TITLE: _____

(SIGNATURE IF FAXED)

MALFUNCTION RECORDED BY: _____ DATE: _____ TIME: _____

Please note - This form should only be used to report malfunctions applicable to Rule 326 IAC 1-6 and to qualify for the exemption under 326 IAC 1-6-4.

326 IAC 1-6-1 Applicability of rule

Sec. 1. The requirements of this rule (326 IAC 1-6) shall apply to the owner or operator of any facility which has the potential to emit twenty-five (25) pounds per hour, or to the owner or operator of any facility with emission control equipment which suffers a malfunction that causes emissions in excess of the applicable limitation.

326 IAC 1-2-39 "Malfunction" definition

Sec. 39. Any sudden, unavoidable failure of any air pollution control equipment, process, or combustion or process equipment to operate in a normal and usual manner. (Air Pollution Control Board; 326 IAC 1-2-39; filed Mar 10, 1988, 1:20 p.m. : 11 IR 2373)

326 IAC 1-6-2 Records: notice of malfunction

When a malfunction occurs that lasts over one (1) hours, said condition shall be reported shall be reported to the commissioner or appointed representative. Notification shall be mad , as soon a as possible, but in event later than four (4) business hours after the beginning of said occupance. The malfunctions reported shall be submitted to the commissioner and a copy report shall be maintained for a period of three (3) year.

***Essential services** are interpreted to mean those operations, such as, the providing of electricity by power plants. Continued operation solely for the economic benefit of the owner or operator shall not be sufficient reason why a facility cannot be shutdown during a control equipment shutdown.

If this item is checked on the front, please explain rationale:

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

Addendum to the Technical Support Document (TSD)
for Fourth Amendment to a PSD Permit

Source Name: AK Steel Corporation
 Source Location: Rockport, Indiana 47635
 County: Spencer
 Amendment No.: A-147-11471-00041
 SIC Code: 3312
 Permit Reviewer: Mack E. Sims

On January 3, 2002, the Office of Air Quality (OAQ) had a notice published in the Journal Democrat, Rockport, Indiana, stating that AK Steel Corporation had applied for an amendment to PSD Permit CP-147-6713-00041 for permit clarifications and revisions to its' steel coil finishing plant. 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 this permit should be issued as proposed.

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

Revision #1

The original PSD permit contained individual conditions and limits for each of the three (3) furnaces collectively making up the APL Annealing Furnace. During the construction of the steel coil finishing plant, there were several equipment changes to the Continuous Anneal and Pickling Line (APL). One of these changes involved the APL Annealing Furnace sections. Instead of installing three (3) furnace sections as described in the permit application, only two (2) sections were installed. The following table shows the original permitted annealing furnace sections and the constructed annealing furnace sections with the associated heat input/NOx limit in pounds per hour. The NOx loading on the furnace sections is 0.04 pounds per MMBtu.

APL Annealing Furnace (MMBtu per hour / lbs. per hour)		
	Permitted	Constructed
Section 1	72.5 / 2.89	110 / 4.4
Section 2	55.2 / 2/21	55.0 / 2.2
Section 3	65.7 / 2.63	not constructed

AK Steel requested as part of this modification that OAQ revise the permit conditions referencing the APL Annealing Furnace so as to reflect what was constructed and also to express the limit for the annealing furnace as a combined limit for the two sections. The OAQ had agreed to this request. However, upon

further review, the OAQ has decided to establish individual limits to ensure enforceability of the BACT emission limits. The OAQ is therefore revising Operation Condition 21(b) to reflect individual limits for each furnace section.

BACT Condition

21. That pursuant to 326 IAC 2-2-3 (Best Available Control Technology), the processes of the continuous annealing and pickling line (APL) shall be limited as follows:
- (a) The alkaline cleaner shall be enclosed and maintained under negative pressure. The filterable particulate matter (PM/PM₁₀) generated from this process shall be controlled by a wet scrubber system. Total particulate matter (including condensible PM₁₀) shall not exceed 0.0044 grains per dscf and 0.377 pounds per hour. The OAQ may revise this permit to adjust the total PM/PM₁₀ limitation based upon the results of stack test required in Condition 8(b). 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.
 - (b) The 110 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 shall be controlled by ultra low-NOx burners with integral exhaust gas recirculation (or equivalent). The outlet ~~combined~~ nitrogen oxide loading **for each section** shall not exceed 0.040 pounds per MMBtu. The ~~combined~~ nitrogen oxide emissions from the two sections of the annealing furnace shall not exceed ~~6.6~~ **4.4 and 2.2** pounds per hour **respectively**.

Revision #2

The particulate matter limits originally expressed in the permit were filterable limits only. After issuance of the PSD permit, the OAQ informed AK Steel that these limits were for both filterable and condensible particulate matter. The limits were not revised at that time to include the condensible portion of particulate matter. The various particulate matter control devices control filterable particulate matter only. There is no control device capable of mitigating the condensible portion of the particulate matter. Compliance testing performed as a requirement of the permit show the filterable particulate matter limits are being met. The condensible portion of the particulate matter has been causing the test to fail. Therefore, the OAQ through this modification is revising the total particulate matter limits in the permit and adding the condensible portion based on the most recent stack test.

On November 8 and 9, 2000, AK Steel conducted compliance testing at the Continuous Pickling Line (CPL) HCL Pickling Baths and Rinse Tanks. Results from these tests show total particulate matter (filterable and condensible) to be 0.61 pounds per hour. AK Steel provided OAQ with a table showing the results of the most recent compliance testing for total particulate matter. In this table, the total particulate matter value shown for the Continuous Pickling Line (CPL) HCL Pickling Baths and Rinse Tanks was given as 0.32 pounds per hour. The OAQ used this value to update Operation Condition 22(b).

However, the OAQ has re-reviewed its copy of the compliance testing data and confirmed that the total particulate matter for this operation was indeed 0.61 pounds per hour and not the 0.32 pounds per hour listed in the reference table. The OAQ is revising Operation Condition 22(b) to reflect the correct value from the November 8 and 9, 2000 compliance testing.

BACT Condition

22. That pursuant to 326 IAC 2-2-3 (Best Available Control Technology), the processes of the continuous pickling line (CPL) shall be limited as follows:
- (a) The 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. Total particulate matter (including condensible PM₁₀) shall not

exceed 0.0076 grains per dscf and 3.69 pounds per hour. The OAQ may revise this permit to adjust the total PM/PM₁₀ limitation based upon the results of stack test required in Condition 8(b). 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.

- 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. Total particulate matter (including condensable PM₁₀) shall not exceed 0.0091 grains per dscf and 0.32 **0.61** pounds per hour. The OAQ may revise this permit to adjust the total PM/PM₁₀ limitation based upon the results of stack test required in Condition 8(b). 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.

Revision #3

The two (2) electrolytic chrome dip tanks located in the roll repair shop are subject to the hard chromium standards stated in 326 IAC 20 and 40 CFR 63, Subpart N (National Emission Standards for Chromium Emissions from Hard and Decorative Chromium Electroplating and Chromium Anodizing Tanks). The original PSD permit addresses this applicability in Operation Condition 28. Operation Condition 28 states the applicability of the NESHAP to the electrolytic chrome dip tanks but only list the chromium emission limitation. The source is required to comply with all applicable requirements of the NESHAP whether in the permit or not. For convenience, the OAQ will revise the permit to include the remainder of the requirements of this NESHAP as they apply to the electrolytic chrome dip tanks. Operation Condition 28 is revised as follows:

Chromium NESHAP

28. (a) That pursuant to 326 IAC 20 and 40 CFR 63, Subpart N (National Emission Standards for Chromium Emissions from Hard and Decorative Chromium Electroplating and Chromium Anodizing Tanks), the **two (2)** electrolytic chrome dip tanks located in the roll repair shop **is are** subject to the hard chromium standards stated in this rule. The total chromium emissions from Stack S15 of the electrolytic chrome dip tanks shall not exceed 0.000066 grains per dscf pursuant to 40 CFR 63.342(c)(1)(i). A copy of this rule is enclosed.
- (b) **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 electrolytic chrome dip tanks 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.**
- (c) **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):**
- (i) **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.**

- (ii) 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.**
 - (iii) Quarterly visual inspections of the ductwork from the tank to the control device to ensure there are no leaks.**
 - (iv) 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 tank, 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.**
- (5) 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, as the OMP, provided the alternative plans meet the above listed criteria.**
- (6) 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.**
- (7) If actions taken by the Permittee during periods of malfunction or periods 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.**
- (8) 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.**

- (d) The following work practice standards apply to the electrolytic chrome dip tanks:**
- (1) 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 in Operation Condition 28(c).**
 - (2) Malfunctions and excess emissions shall be corrected as soon as practicable after their occurrence in accordance with the OMP required above.**
 - (3) These operation and maintenance requirements are enforceable independent of emissions limitations or other requirements in this section.**
 - (4) 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.**
 - (5) Based on the results of a determination made under Operation Condition 28(d)(4), IDEM, OAQ may require that the Permittee make changes to the OMP. Revisions may be required if IDEM, OAQ finds that the plan:**
 - (i) Does not address a malfunction or period of excess emissions that has occurred;**
 - (ii) 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**
 - (iii) Does not provide adequate procedures for correcting malfunctioning process equipment, composite mesh-pad, monitoring equipment or other causes of excess emissions as quickly as practicably**

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.

- (e) A performance test demonstrating initial compliance for the electrolytic chrome dip tanks was performed on January 20, 1999.**
- (1) 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.**

- (2) 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 electrolytic chrome dip tanks are in compliance. If testing is required by the IDEM, compliance with the limit specified in this operation condition and Operation Condition 27 shall be determined by a performance test conducted in accordance with 40 CFR 63.344 and Operation Condition 8.
- (3) 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 Operation Condition 8.
- (f) Pursuant to 40 CFR 63.343(c)(1)(ii), when using a composite mesh-pad system to comply with the limit specified in Operation Condition 28(a), the Permittee shall monitor and record the pressure drop across the composite mesh-pad system during tank operation once each day that the hard chromium electroplating tank is operating. To be in compliance with the standards, the composite mesh-pad system shall be operated within ± 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.

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.

- (g) The Permittee shall maintain records to document compliance with Operation Condition 27, Operation Condition 28(a) and Operation Condition 28(b). These records shall include a minimum of the following:

 - (1) 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 Operation Condition 28(c) and Operation Condition 28(f) have taken place. The record can take the form of a checklist and should identify the following:

 - (i) The device inspected;
 - (ii) The date of inspection;
 - (iii) A brief description of the working condition of the device during the inspection, including any deficiencies found; and
 - (iv) Any actions taken to correct deficiencies found during the inspection, including the date(s) such actions were taken.
 - (2) Records of all maintenance performed on the electrolytic chrome dip tank, the mist eliminator and monitoring equipment.
 - (3) Records of the occurrence, duration, and cause (if known) of each malfunction of the electrolytic chrome dip tank, the composite mesh-pad system and monitoring equipment.

- (4) Records of the occurrence, duration, and cause (if known) of each period of excess emissions of the electrolytic chrome dip tank, the composite mesh-pad system and monitoring equipment as indicated by monitoring data collected in accordance with this condition.**
 - (5) Records of actions taken during periods of malfunction or excess emissions when such actions are inconsistent with the OMP.**
 - (6) Other records, which may take the form of checklists, necessary to demonstrate consistency with the provisions of the OMP.**
 - (7) Test reports documenting results of all performance tests.**
 - (8) All measurements as may be necessary to determine the conditions of performance tests, including measurements necessary to determine compliance.**
 - (9) 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.**
 - (10) The total process operating time, as defined in Operation Condition 28(f), of each tank, during the reporting period.**
 - (11) 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.**
 - (12) All documentation supporting the notifications and reports required by 40 CFR 63.9 and 63.10 (Subpart A, General Provisions) and by Operation Condition 28(h).**
- (h) The notifications and reports required in this section shall be submitted to IDEM, OAQ using the following address:**

**Compliance Data Section, Office of Air Quality
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015**

- (1) Notification of Compliance Status (NCS):**
 - (i) 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.**

The NCS shall be submitted to IDEM, OAQ, and shall list, for each tank, the information identified in 40 CFR 63.347(e)(2).
 - (ii) The NCS for each tank shall be submitted to IDEM, OAQ no later than forty-five (45) days following completion of the compliance demonstration.**
- (2) Notification of Construction or Reconstruction**
 - (i) 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 tank without submitting a Notification of Construction or Reconstruction (NCR) to IDEM, OAQ.

- (ii) The NCR shall contain the information identified in 40 CFR 63.345(b) (2) and (3).
 - (iii) 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 ductwork 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].
 - (iv) 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.
 - (v) Pursuant to 326 IAC 2-1.1-2(a), permission must be received from IDEM, OAQ before construction, modification, or reconstruction may commence.
- (3) Performance Test Results
- (i) The Permittee shall document results from any future performance tests in a complete test report that contains the information required in 40 CFR 344(a).
 - (ii) 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.
- (4) Ongoing Compliance Status Report
- (i) The Permittee shall prepare summary reports to document the ongoing compliance status of the electrolytic chrome dip tank 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).
 - (ii) Because the electrolytic chrome dip tanks are located at 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.
 - (iv) The Ongoing Compliance Status Report shall be completed according to the following schedule except as provided in Operation Condition 28(h)(5).
 - (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.

(5) If both of the following conditions are met, semiannual reports shall be prepared and submitted to IDEM, OAQ:

- (i) 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 Operation Condition 28(f) for the reporting period; and**
- (ii) 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 Operation Condition 28(f).**

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.

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

Indiana Department of Environmental Management Office of Air Quality

Technical Support Document (TSD) for Fourth Amendment to a PSD Permit

Source Background and Description

Source Name:	AK Steel Corporation
Source Location:	Rockport, Indiana 47635
County:	Spencer
Amendment No.:	A-147-11471-00041
SIC Code:	3312
Permit Reviewer:	Mack E. Sims

AK Steel Corporation was issued construction permit CP-147-6713 on February 13, 1997 for a steel coil finishing plant. On August 23, 1999, December 2, 1999, January 5, 2000, July 17, 2000, September 26, 2000 and May 29, 2001, AK Steel Corporation submitted letters to the OAQ requesting clarifications to the permit. The OAQ addresses these comments below.

Comment 1: Third Amendment A-147-10571 to CP-147-6713, did not amend Operation Condition No. 12 as requested by AK Steel and approved by the OAQ as stated in the TSD to Third Amendment 147-10571.

Response 1: AK Steel inquired if flow rate monitoring was necessary for mist eliminators as required by Operation Condition 12. The OAQ reviewed the maximum flow rates from each of the operations (temper mill and cold reduction mills) to its associated mist eliminator vendor specifications and confirmed that the mist eliminators were designed to handle the maximum gas velocities of the operations. Based on the review, the OAQ determined the flow rate of the mist eliminator systems is not a necessary monitoring parameter to demonstrate proper operation of the control. Therefore, the flow rate monitoring parameter has been eliminated from Operation Condition No. 12 of CP-147-6713 as follows ((boldface characters represent additions to the original condition and ~~strikeout~~ characters represent deletions to the original condition) for clarification purposes:

"12. That upon startup, each mist elimination system shall be operated at all times when its associated facility is in operation as identified below:

Electrolytic chrome dip tank,
CCM cold reduction mill, and
Temper mill operation.

- (a) The permittee shall record the pressure drop ~~and flow rate~~ of the mist eliminator at least once per day. The Preventive Maintenance Plan for the mist eliminator shall contain troubleshooting contingency and corrective actions for when the pressure drop readings are outside of the normal range for any one reading.

- (b) The instruments used for determining the pressure drop ~~and flow rate~~ shall be subject to approval by IDEM, OAQ, and shall be calibrated at least once every six (6) months.
- (c) The gauge employed to take the pressure drop across the mist eliminator 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 $\pm 2\%$ of full scale reading. The instrument shall be quality assured and maintained as specified by the vendor.
- (d) An inspection shall be performed each calendar quarter of the mist eliminator. Defective mist eliminator components shall be replaced. A record shall be kept of the results of the inspection and the number of mist eliminator components replaced.
- (e) In the event that a mist eliminator's failure has been observed:
 - (i) The affected unit will be shut down immediately until the failed unit has been repaired or replaced.
 - (ii) 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.
- (f) The permittee shall submit vendor specifications for each mist eliminator and shall include operating parameters for pressure drop ~~and flow rate~~. The permittee may use another method approved by the Commissioner to establish the operating parameters in lieu of vendor specifications. This information shall be submitted to the:

Compliance Data Section, Office of Air Quality
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015

at least 35 days prior to performance testing. Once the operating parameters are established, they shall become part of the Preventive Maintenance Plan.
- (g) These records shall be kept for at least the past 36 month period and made available upon request to the Office of Air Quality (OAQ)."

Comment 2: AK Steel removed the chrome spray application system and scrubber. In its place, AK Steel modified one of the two existing phosphate roll application systems to a chromate roll application system.

Response 2: The original chrome application system applied the chrome solution to the metal via a spray applicator. Because the spray applicator generates particulate matter emissions, a scrubber control system was necessary to control these emissions. However, the new chrome application system uses a roll applicator to apply the chrome solution to the metal. The roll application does not generate particulate emissions. Because the modification to the chrome application system results in a decrease in particulate emissions, the OAQ has amended Item (n) of the Continuous Galvanizing Line (CGL) description section of the permit, Operation Condition No. 8 of CP-147-6713 which was amended in Second Amendment A-147-9818 and Third Amendment A-147-10571, and Operation Condition Nos. 11, 13, and 24(i) of CP-147-6713.

“Continuous Galvanizing Line (CGL) with a maximum **normal** capacity of 183.6 tons per hour consisting of:

- (a) one (1) flattener,
- (b) one (1) mash seam welder,
- (c) alkaline cleaning system exhausting through a wet scrubber system to Stack S17,
- (d) one (1) 4.1 MMBtu/hour natural gas-fired cleaning section dryer,
- (e) one (1) 205.7 MMBtu/hr annealing furnace exhausting through a selective catalytic reduction (SCR) control system to Stack S18,
- (f) one (1) 7.0 MMBtu per hour natural gas-fired back-up galvanneal soak section burner,
- (g) one (1) 2.05 MMBtu per hour natural gas-fired preheater for the zinc pot equipment,
- (h) one (1) induction zinc premelt pot,
- (i) one (1) induction heated zinc coating pot,
- (j) one (1) 0.82 MMBtu per hour natural gas-fired edge burner,
- (k) one (1) water quench cooling section with a closed loop, recirculating water spray,
- (l) one (1) 4.1 MMBtu/hour natural gas-fired dryer,
- (m) one (1) skin pass temper mill and one (1) tension leveller,
- (n) one (1) **chromate application system with one (1) roll coater** ~~chromating section exhausting through a wet scrubber system to Stack S19,~~
- (o) one (1) 6.0 MMBtu/hour natural gas-fired dryer,
- (p) one (1) phosphate application system with ~~two (2)~~ **one (1)** roll coaters,
- (q) one (1) 5.68 MMBtu/hour natural gas-fired dryer,
- (r) one (1) electrostatic oiler, and
- (s) one (1) rotary shear; and....”

“8. That pursuant to 326 IAC 2-1-3 (Construction and Operating Permit Requirements) compliance stack tests shall be performed for the following facilities:

- (a) Required Compliance Stack Tests for NOx Emissions:
 - (1) Stack S03 from the three (3) 76.0 MMBtu per hour package boilers,
 - (2) Stack S20 from the two (2) 76.0 MMBtu per hour package boilers,
 - (3) ~~Stacks S07A, S07B, and S07C~~ **S07A and S07B** from the 493.2

~~MMBtu per hour~~ APL annealing furnace **sections to be tested concurrently,**

- (4) Stack S18 from the 205.7 MMBtu per hour CGL annealing furnace SCR system, and
- (5) Stack S09B from the APL mixed acids pickling and final rinse multi-stage scrubber system.

(b) Required Compliance Stack Tests for PM/PM₁₀ Emissions:

- (1) Stack S06-A from the APL alkaline cleaning bath wet scrubber system,
- ~~(2) Stack S06B from the APL stretch leveller baghouse,~~
- ~~(3 2)~~ Stack S08-A from the APL first air quench **section station** baghouse,
- ~~(4 3)~~ Stack S09A from the APL electrolytic pickling scrubber,
- ~~(5 4)~~ Stack S09B from the APL mixed acid pickling and rinse multi-stage scrubber system,
- ~~(6 5)~~ Stack S09C from the APL skin pass temper mill baghouse,
- ~~(7 6)~~ Stack S01 from the CPL scale breaker baghouse,
- ~~(8 7)~~ Stack S02 from the three (3) CPL HCl pickle and rinse wet scrubber system,
- ~~(9 8)~~ Stack S17 from the CGL alkaline cleaner wet scrubber system,
- ~~(10) Stack S19 from the CGL chromating section wet scrubber system,~~
- ~~(11 9)~~ Stack S15-A from the electrolytic chrome dip tank ~~wet scrubber~~ **mist eliminator** system,
- (12 0) Stack S16 from the temper mill mist eliminator system, and
- (13 1) Stacks S11 and S12 from the continuous cold mill mist eliminator system.

References to particulate matter in the operation conditions of this permit, with the exception of fugitive particulate matter, shall mean total particulate matter consisting of PM and PM₁₀, measured as the sum of filterable and condensable emissions using methods approved by the department.

(c) Required Compliance Stack Tests for Total Chromium Emissions:

- (1) Stack S15-A from the electrolytic chrome dip tank ~~wet scrubber~~ **mist eliminator** system....”

“11. That upon startup, each scrubber shall be operated at all times when its associated facility is in operation as identified below:

APL alkaline cleaner section,
APL electrolytic pickle and rinse tanks,
APL mixed acids pickle and rinse tanks,
CPL HCl pickle and rinse tanks,
CGL alkaline cleaning system,
~~GGL chromating section, and~~
~~Electrolytic chrome dip tank, and~~

~~GPL~~ HCl, nitric acid and HF storage tanks.

- (a) The permittee shall record the ~~acid content~~ **pH** of the scrubbing liquid (if applicable), pressure drop and **scrubbing liquid** flow rate of the scrubber at least once per day. ~~The permittee shall monitor and record the velocity pressure at the common inlet of the scrubber as an additional parameter for the electrolytic chrome dip tank at least once per day to satisfy requirements of 40 CFR 63, Subpart N.~~ The Preventive Maintenance Plan for the scrubber shall contain troubleshooting contingency and corrective actions for when the ~~acid content~~ **pH**, pressure drop, **scrubbing liquid** flow rate, and velocity pressure readings are outside of the normal range for any one reading.
- (b) The instruments used for determining the ~~acid content~~ **pH** of the scrubbing liquid (if applicable), pressure drop, **scrubbing liquid** flow rate, and velocity pressure 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.
- (c) The gauge employed to take the pressure drop across the scrubber 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 $\pm 2\%$ of full scale reading. The instrument shall be quality assured and maintained as specified by the vendor.
- (d) An inspection shall be performed each calendar quarter of the scrubber. Defective scrubber components shall be replaced. A record shall be kept of the results of the inspection and the number of scrubber components replaced.
- (e) In the event that a scrubber's failure has been observed:
- (i) The process associated with the affected unit will be shut down immediately until the failed unit has been repaired or replaced.
 - (ii) 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.
- (f) The permittee shall submit vendor specifications for each scrubber and shall include operating parameters for ~~acid content~~ **pH** of the scrubbing liquid (if applicable), pressure drop and **scrubbing liquid** flow rate. The permittee may use another method approved by the Commissioner to establish the operating parameters in lieu of vendor specifications. The operating parameters for the electrolytic chrome dip tank scrubber shall be determined in accordance with the provisions of 40 CFR 63, Subpart N. This information shall be submitted to the:

Compliance Data Section, Office of Air Quality

100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015

at least 35 days prior to performance testing. Once the operating parameters are established, they shall become part of the Preventive Maintenance Plan.

- (g) These records shall be kept for at least the past 36 month period and made available upon request to the Office of Air Quality (OAQ)."

"13. That visible emission notations of all exhaust to the atmosphere from:

~~Stack S06-A from the wet scrubber system,
Stack S06B from the baghouse,
Stack S08-A from the baghouse,
Stack S09A from the scrubber system,
Stack S09B from the multi-stage scrubber system,
Stack S09C from the baghouse,
Stack S01 from the baghouse,
Stack S02 from the wet scrubber system,
Stack S17 from the wet scrubber system, and
Stack S19 from the wet scrubber system,
Stack S15B from the baghouse,
Stack S16 from the mist eliminator system,
Stacks S11 and S12 from the mist eliminator system, and
Stack S15A from the wet scrubber mist eliminator system,~~

shall be performed once per working shift (during daylight hours). A trained employee will record whether emissions are normal or abnormal...."

"24. That pursuant to 326 IAC 2-2-3 (Best Available Control Technology), the processes of the continuous galvanizing line (CGL) shall be limited as follows:

- (a) The alkaline cleaning baths and rinse tanks shall be enclosed and maintained under negative pressure. The **filterable** particulate matter (**PM/PM₁₀**) 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 0.0022 grains per dscf **and** ~~The particulate matter emissions shall not exceed 0.125 pounds per hour.~~ **Total particulate matter (including condensable PM₁₀) 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 stack test required in Condition 8(b). 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.**

- (b) The 4.10 MMBtu per hour cleaning section dryer shall only use natural gas.
- (c) The 205.7 MMBtu/hr annealing and induction heating galvannealing furnace shall be controlled by a selective catalytic reduction control (SCR). The outlet nitrogen oxide loading shall not exceed 0.06 pounds per MMBtu. The nitrogen oxide emissions shall not exceed 12.3 pounds per hour.
- (d) The 7.0 MMBtu per hour galvanized soak section backup burner shall only use natural gas.
- (e) The 2.05 MMBtu per hour preheater for the zinc pot equipment shall only use natural gas.
- (f) The induction zinc premelt pot and induction zinc coating pot shall be heated by electricity.
- (g) The 0.82 MMBtu per hour edge burners shall only use natural gas.
- (h) The 4.1 MMBtu per hour galvanizing line dryer shall only use natural gas.
- ~~(i) The particulate matter generated from the chromating section shall be controlled by a wet scrubber system. The outlet grain loading of the scrubber shall not exceed 0.0009 grains per dscf. The particulate matter emissions shall not exceed 0.037 pounds per hour.~~
- (+i) The 6.0 MMBtu per hour ~~chromating section~~ **chromate application system** dryer shall only use natural gas.
- ~~(+j)~~ The 5.68 MMBtu per hour phosphate application with roll coaters dryer shall only use natural gas.
- (+k) The rust Preventive oils shall be applied to the metal strips electrostatically.”

Comment 3: AK Steel would like to monitor pH instead of acid content as its compliance monitoring parameter.

Response 3: Either acid content or pH can be an effective compliance monitoring parameter to measure the acidity of the scrubbing liquid. It is important to monitor and control the acidity of the scrubbing liquid to ensure proper absorption (removal) of material (acid) from the gas stream to the contacting scrubbing liquid. Because either parameter monitors the acidity of the scrubbing liquid, the scrubber monitoring parameters have been amended in Operation Condition No. 11 of CP-147-6713, as shown above in Item 2 for clarification purposes.

Comment 4: The particulate matter emission limit established in the permit for the CGL alkaline cleaner and scrubber system is for both filterable and condensable particulate. However, this limitation, as supplied by the scrubber vendor, was intended to account for only the filterable

fraction of the particulate matter. Based on a recent stack test, AK Steel was in compliance with the filterable particulate fraction (0.0003 gr/dscf), but was not in compliance with the filterable and condensible particulate fractions. AK Steel requests OAQ to add a statement to the condition that the permitted limit represents the filterable particulate matter.

Response 4: The condensible fraction must be considered in the emission limitation to account for all of the particulate emissions generated from the facility.

In light of the information obtained from AK Steel regarding the particulate emission limit for the CGL alkaline cleaner/scrubber system, the OAQ conducted a BACT review to determine the appropriate particulate emission limit. There are no entries located in the EPA RBLC Database for this type of facility. The OAQ located one Indiana permit (I/N Kote) relating to a similar operation. The I/N Kote permit established an emission limitation of 0.0011 gr/dscf and 0.18 pounds per hour utilizing a mist eliminator control system, which was revised to 0.6 pounds per hour. A review of the I/N Kote stack test results for this facility demonstrated compliance with the revised limit, but only the filterable fraction was evaluated.

The particulate matter emission limitation for the wet scrubber system of the alkaline cleaning baths and rinse tanks has been amended in Operation Condition No. 24(a) of CP-147-6713, as shown above in Item 2. This limitation has been amended to include the condensible particulate fraction of the exhaust stream. Also see "Response to Comments 11 & 14" for further discussion.

Comment 5: During the construction of the steel coil finishing plant, there were several equipment changes to the Continuous Anneal and Pickling Line (APL):

1. The APL Stretch Leveller (S06B) was not installed;
2. Only two of the three APL Annealing Furnace sections were installed; and
3. Only one of the six air quench exhaust systems was installed.

Response 5: Although only two of the three APL annealing furnace sections were installed, the furnace size of one of the annealing furnace sections increased. However, the overall size of the APL annealing furnace is smaller than was originally permitted. Because the overall furnace size is smaller, there is a reduction in allowable emissions. The modification to the APL annealing furnace as well as the other changes to the APL line do not increase the allowable emissions from the source; therefore, the OAQ has amended Item (n) of the APL description section of the permit and Operation Condition Nos. 8(b)(2), 10 and 21 to reflect the requested changes to the APL line (strikeout typeface represents deletions to the original conditions and bold typeface represents additions to the original conditions):

"Continuous Anneal and Pickling Line (APL) with a maximum **normal** capacity of 130 tons per hour consisting of:

- (a) one (1) flattener,
- (b) one (1) shear,
- (c) one (1) laser welder,
- (d) one (1) leveller shear,
- (e) one (1) alkaline cleaner section exhausting through a wet scrubber system to Stack S06-A;

- ~~(f)~~ one (1) stretch leveller exhausting through a baghouse to Stack S06B;
- ~~(-g-f)~~ one (1) ~~72.3~~ **110** million (MM)Btu per hour natural gas-fired annealing furnace section equipped with low-NOx burners with integral exhaust gas recirculation (or equivalent) exhausting to Stack S07A,
- ~~(-h-g)~~ one (1) ~~55.2~~ **55** MMBtu per hour natural gas-fired annealing furnace section equipped with low-NOx burners with integral exhaust gas recirculation (or equivalent) exhausting to Stack S07B,
- ~~(i)~~ one (1) ~~65.7~~ MMBtu per hour natural gas-fired annealing furnace section equipped with low-NOx burners with integral exhaust gas recirculation (or equivalent) exhausting to Stack S07C;
- ~~(-j-h)~~ first one (1) air quench station consisting of 11 sections exhausting through a baghouse to Stack S08-A,
- ~~(k)~~ second air quench section exhausting through a baghouse to Stack S08B,
- ~~(l)~~ third air quench section exhausting through a baghouse to Stack S08C,
- ~~(m)~~ fourth air quench section exhausting through a baghouse to Stack S08D,
- ~~(n)~~ fifth air quench section exhausting through a baghouse to Stack S08E,
- ~~(o)~~ sixth air quench section exhausting through a baghouse to Stack S08F,
- ~~(-p-i)~~ two (2) water quench sections,
- ~~(-q-j)~~ one (1) enclosed shot blasting chamber exhausting through a baghouse to Stack S05,
- ~~(-r-k)~~ electrolytic pickle and rinse tanks exhausting through a wet scrubber system to Stack S09A,
- ~~(-s-l)~~ mixed acids pickle and rinse tanks exhausting through a multi-stage oxidation/reduction and acid neutralization scrubbing system to Stack S09B,
- ~~(-t-m)~~ one (1) steam heated strip dryer,
- ~~(-u-n)~~ skin pass temper mill exhausting through a baghouse to Stack S09C, and
- ~~(-v-o)~~ one (1) tension/leveller and side trimmer;"

"10. That upon startup, each baghouse shall be operated at all times when its associated facility is in operation as identified below:

~~APL air quench station sections No. 1 through No. 6,~~
~~APL stretch leveller,~~
APL shot blasting chamber,
APL skin pass temper mill operation,
CPL strip leveller and mechanical scale breaker, and
Electrodischarge texturing machines...."

"21. That pursuant to 326 IAC 2-2-3 (Best Available Control Technology), the processes of the continuous annealing and pickling line (APL) shall be limited as follows:

- ~~(a)~~ The particulate matter generated from the stretch leveller shall be controlled by a baghouse. The outlet grain loading from the baghouse shall not exceed 0.010 grains per dry standard cubic feet (grains per dscf). The particulate matter emissions shall not exceed 1.89 pounds per hour.

- ~~(-b-a)~~ The alkaline cleaner shall be enclosed and maintained under negative

pressure. The **filterable** particulate matter (**PM/PM₁₀**) generated from this process shall be controlled by a wet scrubber system. ~~The outlet grain loading from the scrubber shall not exceed 0.0044 grains per dscf. The particulate matter emissions shall not exceed 0.377 pounds per hour.~~ **Total particulate matter (including condensable PM₁₀) shall not exceed 0.0044 grains per dscf and 0.377 pounds per hour. The OAQ may revise this permit to adjust the total PM/PM₁₀ limitation based upon the results of stack test required in Condition 8(b). 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.**

- (~~e~~-b) The ~~72.3~~ **110.0** MMBtu per hour annealing furnace section No. 1 **and the 55.0 MMBtu per hour annealing furnace section No. 2** shall use only natural gas and shall be controlled by ultra low-NOx burners with integral exhaust gas recirculation (or equivalent). The outlet nitrogen oxide loading shall not exceed 0.040 pounds per MMBtu. The **combined** nitrogen oxide emissions from ~~this~~ **the two** sections of the annealing furnace shall not exceed ~~2.89~~ **6.6** pounds per hour.
- (c) **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 year. 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~~) ~~The 55.2 MMBtu per hour annealing furnace section No. 2 shall use only natural gas and shall be controlled by ultra low-NOx burners with integral exhaust gas recirculation (or equivalent). The outlet nitrogen oxide loading shall not exceed 0.040 pounds per MMBtu. The nitrogen oxide emissions from this section of the annealing furnace shall not exceed 2.21 pounds per hour.~~
- (~~e~~) ~~The 65.7 MMBtu per hour annealing furnace section No. 3 shall use only natural gas and shall be controlled by ultra low-NOx burners with integral exhaust gas recirculation (or equivalent). The outlet nitrogen oxide loading shall not exceed 0.040 pounds per MMBtu. The nitrogen oxide emissions from this section of the annealing furnace shall not exceed 2.63 pounds per hour.~~
- (~~f~~-d) **The filterable particulate matter (PM/PM₁₀) generated from each of the six (6) air quench station systems shall be controlled by separate a baghouse s-. The outlet grain loading from each baghouse shall not exceed 0.005 grains per dscf. The particulate matter emissions from the total system**

~~shall not exceed 10.21 pounds per hour.~~ **Total particulate matter (including condensible PM₁₀) shall not exceed 0.005 grains per dscf and 1.41 pounds per hour. The OAQ may revise this permit to adjust the total PM/PM₁₀ limitation based upon the results of stack test required in Condition 8(b). 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.**

- (-g-e) 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 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.
- (-h-f) The **filterable** particulate emissions (**PM/PM₁₀**) generated from the electrolytic pickling section shall be controlled by a wet scrubber system. The outlet grain loading from the scrubber **for filterable particulate matter** shall not exceed 0.0022 grains per dscf **and** ~~. The particulate matter emissions shall not exceed 0.349 pounds per hour.~~ **Total particulate matter (including condensible PM₁₀) shall not exceed 0.0064 grains per dscf and 0.620 pounds per hour. The OAQ may revise this permit to adjust the total PM/PM₁₀ limitation based upon the results of stack test required in Condition 8(b). 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.**
- (+g) The mixed acid pickle and rinse tanks shall be enclosed and maintained under negative pressure. The **filterable** particulate matter (**PM/PM₁₀**) and **the** nitrogen oxide generated from this process shall be controlled by a wet scrubber system.
 - (1) The outlet nitrogen oxide loading shall not exceed 175 ppmvd and the nitrogen oxide emissions shall not exceed ~~6.48~~ **9.66** pounds per hour.
 - (2) The outlet grain loading **for filterable particulate matter** shall not exceed 0.003 grains per dscf and ~~the particulate emissions shall not exceed 0.153 pounds per hour.~~ **Total particulate matter (including condensible PM₁₀) shall not exceed 0.0060 grains per dscf and 0.28 pounds per hour. The OAQ may revise this permit to adjust the total PM/PM₁₀ limitation based upon the results of stack test required in Condition 8(b). 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.**

- (+h) The strip dryer shall only use steam heat.
- (+i) The **filterable** particulate matter (**PM/PM₁₀**) generated from the skin pass temper mill shall be controlled by a baghouse. ~~The outlet grain loading of the baghouse shall not exceed 0.0066 grains per dscf. The particulate matter emissions shall not exceed 0.459 pounds per hour.~~ **Total particulate matter (including condensible PM₁₀) shall not exceed 0.0066 grains per dscf and 0.459 pounds per hour. The OAQ may revise this permit to adjust the total PM/PM₁₀ limitation based upon the results of stack test required in Condition 8(b). 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.**

Comment 6: AK Steel submitted a request to the OAQ Air Monitoring Branch to discontinue their monitoring requirement under Operation Condition No. 37. As of September 2001 they will have three (3) years of monitoring data.

Response 6: Pursuant to Operation Condition No. 37(g) and at the request of AK Steel, the OAQ has reviewed the data collected by AK Steel to determine if the permit monitoring requirements of three years of valid data has been fulfilled. The data was reviewed for compliance with the National Ambient Air Quality Standards (NAAQS) for PM₁₀ and NO₂ and found to be well under the appropriate NAAQS for each pollutant. The OAQ granted the request of AK Steel to discontinue ambient monitoring as of September 30, 2001 in a letter dated August 14, 2001. Operation Condition No. 37 will be removed from the permit and all remaining conditions will be renumbered.

Comment 7: The cold reduction mills of the continuous cold mill operation only exhausts to one stack.

Response 7: The cold reduction mills of the continuous cold mill operation have been amended to reflect that the operation only exhausts to one stack. Operation Condition Nos. 8(b)(14), 11, and 13 of CP-147-6713 have been amended to reflect this change as shown above in Item 2. Item (c) of the Continuous Cold Mill (CCM) description section of the permit and Operation Condition Nos. 14 and 23 have been amended as follows to reflect this change (strikeout typeface represents deletions to the original conditions):

“Continuous Cold Mill (CCM) with a maximum **normal** capacity of 660 tons per hour consisting of:

- (a) one (1) strip leveller and one (1) shear,
- (b) one (1) laser welder,
- (c) five (5) cold reduction mills exhausting to one (1) mist elimination system to Stacks S11 ~~and S12~~, and
- (d) one (1) cold mill rotary shear and tension reels....”

“14. That pursuant to 326 IAC 2-2-3 (Best Available Control Technology),

visible emissions from the source shall not exceed an average of five (5) percent opacity in 24 consecutive readings.

A certified visible emissions reader shall conduct and record observations in accordance with 40 CFR 60, Appendix A, Method 9, once per working shift (during daylight hours) for 12 minutes during each observation period for the following stacks:

Stack S11 ~~and S12~~ from the continuous cold mill mist eliminator system, and
Stack S16 from the temper mill mist eliminator system.

These records shall be kept for at least the past 36 month period and made available upon request to the Office of Air Quality (OAQ). A Preventive Maintenance Plan for these facilities shall contain troubleshooting contingencies and corrective actions for when the opacity exceeds an average of five (5) percent opacity in 24 consecutive readings.”

“23. That pursuant to 326 IAC 2-2-3 (Best Available Control Technology), the five-stand continuous 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. ~~The outlet grain loading from the mist eliminator system shall not exceed 0.0087 grains per dscf. The combined particulate matter emissions from Stacks S11 and S12 shall not exceed 16.1 pounds per hour.”~~ **Total particulate matter (including condensable PM₁₀) shall not exceed 0.0087 grains per dscf and 16.1 pounds per hour. The OAQ may revise this permit to adjust the total PM/PM₁₀ limitation based upon the results of stack test required in Condition 8(b). 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.**

Comment 8: AK Steel installed a mist eliminator control system on the chrome dip tank. The original permit required a wet scrubber control system on the chrome dip tank. The performance test on this facility demonstrated compliance; therefore, AK Steel requests that the permit be amended to reflect this change in the control system. Additionally, the maximum heat input of the individual units in Item (f) of the Ancillary Equipment description section of the permit has been revised to reflect the actual equipment installed. There is no increased potential to emit resulting from this change as the total heat input for item (f) remains at 251 MMBtu per hour.

Response 8: The chrome dip tank has been amended to reflect a change in the control technology from a wet scrubber system to a mist eliminator system. This change in control technology does not change or increase the allowable emissions from this facility. Operation Condition No. 12 of CP-147-6713 has been amended to reflect this change as shown above in Item 1 and Operation Condition Nos. 8(b)(11), 8(c)(1), 11, and 13 of CP-147-6713 have been amended

to reflect this change as shown above in Item 2. Item (b) of the Ancillary Equipment description section of the permit and Operation Condition No. 27 have been amended as follows to reflect this change to the chrome dip tank. Additionally, the maximum heat input of the individual units in Item (f) of the Ancillary Equipment description section of the permit has been revised to reflect the actual equipment installed. There is no increased potential to emit resulting from this change as the total heat input for item (f) remains at 251 MMBtu per hour. Operation Condition No. 33 is revised to reflect this change (bold typeface represents additions to the original conditions and strikeout typeface represents deletions to the original conditions and bold typeface represents additions to the original conditions):

“Ancillary Equipment consisting of:

- (a) hydrogen batch annealing with fifteen (15) natural gas-fired furnaces with low-NOx burners rated at 6.75 MMBtu per hour exhausting through the roof monitor system in building B3,
- (b) roll repair shop with chrome dip tank exhausting through a ~~wet scrubber~~ **mist eliminator** system to Stack S15A,
- (c) roll repair shop with two (2) electrodischarge texturing machines exhausting through a baghouse ~~to Stack S15B~~ **that vents to the building**,
- (d) three (3) natural gas-fired 76.0 MMBtu per hour boilers with ultra low-NOx burners in boiler house No. 1 exhausting to Stack S03,
- (e) two (2) natural gas-fired 76.0 MMBtu per hour boilers with ultra low-NOx burners in boiler house No. 2 exhausting to Stack S20,
- (f) space heaters and air make-up units with each unit limited to no more than ~~3.85~~ **5.2** MMBtu per hour and a combined rating limited to no more than 251 MMBtu per hour,

“33. That pursuant to 326 IAC 2-1-3 (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 ~~2.68~~ **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.”

“27. That pursuant to 326 IAC 2-2-3 (Best Available Control Technology), the particulate matter generated, measured as chromium, from the electrolytic chrome dip tank located in the roll repair shop shall be controlled by a ~~wet scrubber~~ **mist eliminator** system. The outlet grain loading shall not exceed 6.6×10^{-6} grains/dscf.

Comment 9: The stack to the electrodischarge texturing machines baghouse of the roll repair shop was never installed. Instead, the baghouse exhausts directly inside the building.

Response 9: The stack to the electrodischarge texturing machines baghouse of the roll repair shop was never installed. Instead, the baghouse exhausts directly inside the building. Therefore, Item (c) of the Ancillary Equipment description section of the permit, as shown in Item 8 above, and Operation Condition 13, as shown in Item above, have been amended to make this clarification. Operation Condition 29 has also been amended as follows (bold typeface represents additions to the original condition and strikeout characters represent deletions to the original condition):

“29. That pursuant to 326 IAC 2-2-3 (Best Available Control Technology), the particulate matter generated from the electrodischarge texturing machines 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 ~~Stack S15B~~ **the baghouse exhaust** shall not exceed 0.012 pounds per hour.

Comment 10: AK Steel requests that the opacity observations for the temper mill and cold mill be dropped from the permit requirements because AK Steel is already required to conduct visible emission notations from these facilities.

Response 10: Upon further review, the OAQ has determined that the Permittee is not required to perform visible emission notations required by Operation Condition No. 13 for the continuous cold mill mist eliminator system (Stack S11) and temper mill mist eliminator system (Stack S16) because the Permittee is required in Operation Condition No. 14 to perform more accurate opacity observations in accordance with 40 CFR 60, Appendix A, Method 9. Operation Condition No. 13 has been amended to reflect this change as shown above in Item 2.

Comments 11 & 14: AK Steel made a good faith effort to research every CGL and APL built in the United States since 1992. They identified 24 galvanizing lines and 10 pickling lines located in 12 different states. Out of 33 request for information, AK Steel received 32 responses. Only 2 of the 32 permits received had total particulate limits that include condensible particulate matter. The other permits required filterable limits only, opacity, or, in some cases, had no particulate limits. One of the two permits requiring condensible limits did not require this test for the galvanizing line cleaning sections. The other permit requiring condensible limits for the galvanizing line sections was issued in Indiana. This pound per hour total particulate matter limit is approximately 350 times the pound per hour limit contained in the AK Steel permit. AK Steel request that OAQ either: 1) change the total particulate limitations to filterable limits only, 2) allow AK Steel to only monitor the condensible fraction of particulate matter or 3) increase the total particulate limitations in the permit.

Response to Comments 11 & 14: The OAQ has reviewed the data submitted by AK Steel and agrees with the conclusions drawn. As the original particulate matter limits in the permit were based on the filterable portion only and latter change to include total particulate matter, the OAQ will amend the permit by increasing the total particulate matter limits to include the condensible portion. The OAQ also considered the most recent stack test data on the units required to be tested in making the decision to increase the limits. This stack test data showed that all units were comfortably meeting the filterable limits and thus the control

equipment was working as expected. The particulate matter emission limitation for the baghouse on the CPL strip leveller and scale breaker, the wet scrubber system of the CPL pickle and rinse tanks and the mist eliminator for the temper mill is being amended as shown below. Operation Conditions No. 22(a), 22(b) and 25 of CP-147-6713 are amended to include the condensible particulate fraction of the exhaust stream.

22. That pursuant to 326 IAC 2-2-3 (Best Available Control Technology), the processes of the continuous pickling line (CPL) shall be limited as follows:

- (a) The **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~~. ~~The particulate matter emissions from Stack S01 shall not exceed 1.52 pounds per hour.~~ **Total particulate matter (including condensible PM₁₀) shall not exceed 0.0076 grains per dscf and 3.69 pounds per hour. The OAQ may revise this permit to adjust the total PM/PM₁₀ limitation based upon the results of stack test required in Condition 8(b). 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.**
- (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~~. ~~The particulate matter emissions from Stack S02 shall not exceed 0.206 pounds per hour.~~ **Total particulate matter (including condensible PM₁₀) shall not exceed 0.0091 grains per dscf and 0.32 pounds per hour. The OAQ may revise this permit to adjust the total PM/PM₁₀ limitation based upon the results of stack test required in Condition 8(b). 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.**
- (c) The pickling line dryer shall only use steam heat.
- (d) The rust preventive oils shall be applied to the metal strips electrostatically.

25. That pursuant to 326 IAC 2-2-3 (Best Available Control Technology), the

filterable particulate matter (**PM/PM₁₀**) generated from the temper mill shall be controlled by a mist eliminator. ~~The outlet grain loading of the mist eliminator shall not exceed 0.01 grains per dscf. The particulate matter emissions from Stack S16 shall not exceed 5.71 pounds per hour.~~ **Total particulate matter (including condensable PM₁₀) shall not exceed 0.010 grains per dscf and 5.71 pounds per hour. The OAQ may revise this permit to adjust the total PM/PM₁₀ limitation based upon the results of stack test required in Condition 8(b). 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.**

The particulate matter emission limitation for the wet scrubber system of the alkaline cleaner, the baghouse of the air quench station, the wet scrubber system of the electrolytic pickling section, the wet scrubber system of the mixed acid pickle and rinse tanks, the baghouse of the skin pass temper mill and the mist eliminator system of the five-stand continuous cold reduction mill has been amended in Operation Condition Nos. 21(a), 21(d), 21(f), 21(g)(2), 21(i) and 23 of CP-147-6713, as shown above in Items 5 and 7. This limitation has been amended to include the condensable particulate fraction of the exhaust stream.

Comment 12: AK Steel is requesting to add a process call "smoke and anneal" to the operation of the continuous annealing and pickle line (APL) annealing furnace sections No. 1 and 2. Smoke and Anneal is a process by which the stainless steel is annealed in an oxygen rich environment inside the annealing furnace. Certain imperfections from the hot rolling process are captured in the thicker and more concentrated scale resulting from the process. The process is only applicable to certain grades of stainless steel and will be utilized no more than 48 days per year.

Response 12: Operation Condition No. 21(c) of CP 147-6713-0041 has been amended to reflect this addition as shown in item 5 above. An increase of 7.6 tons per year of NOx will result from this addition.

Comment 13: AK Steel requested a change in the language of Operation Conditions 10(c), 11(c), and 12(c) regarding the pressure drop recorder scale and accuracy to reflect that their instrumentation is digital.

Response 13: The OAQ Permits Branch consulted with the OAQ Compliance Data Section regarding the request. The Compliance Data Section has determined that the conditions as written are representative of both digital and analog instrumentation, therefore there will be no change in these conditions at this time.

The OAQ makes the following changes to the permit:

The Office of Air Quality (OAQ) has undergone a name change since the issuance of the original construction permit. The new name is the Office of Air Quality (OAQ). All references to the old name will be changed to the new name in the amended permit. The OAQ has also made various punctuation and grammar changes to the language in the permit for clarification purposes.

Emission Calculations

Particulate Matter Changes			
Emission Unit	Current Limit (lbs/hr)	New Limit (lbs/hr)	Change (tons/yr)
CPL Scale Breaker	1.52	3.69	9.504
CPL Pickle and Rinse Tanks (HCL)	0.206	0.32	0.499
APL Alkaline Cleaner	0.377	0.377	0
APL Air Quench Changes	10.21	1.41	-38.544
APL Electrolytic Pickling & Rinse	0.349	0.62	1.186
APL Mixed Acid Pickle & Rinse Tanks	0.153	0.28	0.556
APL Skin Pass Mill	0.459	0.459	0
CCM Cold Mill	16.1	16.1	0
Temper Mill	5.71	5.71	0
CGL Alkaline Cleaning	0.125	0.382	1.126
Chromate Section Change	0.037	-	-0.162
Stretch Leveller Removal	1.89	-	-8.278
Total			-34.111

NOx Changes			
Emission Unit	Current Limit (lbs/hr)	New Limit (lbs/hr)	Change (tons/yr)
APL Mixed Acid Pickle & Rinse Tanks	6.18	9.66	15.24
APL Annealing Furnace	7.73	6.6	-4.95
Smoke & Anneal Process (1152 hours per year)	-	13.2	7.6
Total			17.89

Justification for Modification

As a result of this amendment, overall PM emissions from the source will decrease while the NOx emissions

will increase less than 18 tons per year. CP 147-6713-00041 was issued pursuant to 326 IAC 2-2 and 40 CFR 52.51 (Prevention of Significant Deterioration). As such, the OAQ is proposes to issue this amendment as a significant permit revision pursuant to 326 IAC 2-7-10(f)(1) to make the revised limits federally enforceable. No additional Best Available Control Technology (BACT) review is required due to the relaxation of the PM limits to include the condensible portion of particulate matter as there is no control device for the condensible PM. The permit is being modified to include that portion of PM which was not accounted for in the original permit. Recent stack test show that the original filterable PM limits are being met by the source. No additional BACT review is required for the APL Mixed Acid Pickle & Rinse Tanks as the BACT control and BACT limits for both PM and NOx did not change. Due to an equipment change during construction, an exhaust system was replaced with a fan resulting in a higher flow rate. The new limits are the equivalents of the BACT concentrations at the higher flow rate.

Federal Rule Applicability

There are no additional New Source Performance Standards (326 IAC 12 and 40 CFR Part 60) that apply to this facility as a result of the proposed changes.

There are no additional National Emission Standards for Hazardous Air Pollutants (326 IAC 14 and 40 CFR 63) that apply to this facility as a result of the proposed changes.

State Rule Applicability

There are no additional State rules that apply to this facility as a result of the proposed changes.

Permit Conditions Subject to Public Comment Under This Amendment

This is the fourth amendment to Construction Permit 147-6713-00041. Previous amendments only included updates to those pages of the permit that were affected by the amendment. Due to the numerous changes involved in this amendment and the OAQ name change, the OAQ will reissue the entire permit with this amendment. Amendment Four (A-147-111471-00041) has incorporated those changes to the permit that were made under Amendment One (A-147-9557-00041), Amendment Two (A-147-9818-00041) and Amendment Three (A-147-10571-00041). Since these first three amendments only involved descriptive changes, they were not subject to the public review process prior to being issued. Only the changes made under this amendment and included in this document are subject to public comment. Operation conditions revised as a result of this amendment and subject to public comment are: Operation Conditions #8, #10, #11, #12, #13, #14, #21, #22, #23, #24, #25, #27, #29, and #33. All other conditions of the permit shall remain unchanged and in effect. This amendment shall be maintained with permit CP 147-6713-00041 until such time that the Part 70 Permit is issued.

Air Toxic Emissions

Indiana presently requests applicants to provide information on emissions of the 187 hazardous air pollutants set out in the Clean Air Act Amendments of 1990. These pollutants are either carcinogenic or otherwise considered toxic and are commonly used by industries. They are listed as air toxics on the OAQ Construction Permit Application Form Y. No increase in these listed air toxics will be emitted from the proposed changes.

Conclusion

The changes addressed in the Source Description and Background section above have been amended in

the attached proposed **Fourth Amendment A147-10571-00041 to CP-147-6713-00041.**