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

Mitchell E. Daniels, Jr.
Governor

Thomas W. Easterly
Commissioner

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

TO: Interested Parties / Applicant

DATE: June 19, 2007

RE: Nucor Steel / 107-24187-00038

FROM: Nisha Sizemore
Chief, Permits Branch
Office of Air Quality

Notice of Decision: Approval - Effective Immediately

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

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

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

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

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

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

Enclosures
FNPER.dot 03/23/06

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

Mitchell E. Daniels, Jr.
Governor

Thomas W. Easterly
Commissioner

100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251
(317) 232-8603
(800) 451-6027
www.IN.gov/idem

Mr. David A. Sulc
Nucor Steel
4357 South Nucor Road
Crawfordsville, Indiana 47933

June 19, 2007

Re: 107-24187-00038
Second Significant Source Modification to:
Part 70 Permit No.: 107-7172-00038

Dear Mr. Sulc:

Nucor Steel was issued Part 70 operating permit T107-7172-00038 on December 29, 2006 for a steel mini-mill. An application to modify the source was received on January 11, 2007. Pursuant to 326 IAC 2-7-10.5(f)(4)(A), the following emission units are approved for construction at the source:

The source proposes to add an acidless metal cleaning line (continuous abrasive blasting, with a baghouse to control particulate emissions) to their existing Perdue pickle line.

The following construction conditions are applicable to the proposed project:

General Construction Conditions

1. The data and information supplied with the application shall be considered part of this source modification approval. Prior to any proposed change in construction which may affect the potential to emit (PTE) of the proposed project, the change must be approved by the Office of Air Quality (OAQ).

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

3. Effective Date of the Permit
Pursuant to IC 13-15-5-3, this approval becomes effective upon its issuance.

4. Pursuant to 326 IAC 2-1.1-9 and 326 IAC 2-7-10.5(i), the Commissioner may revoke this approval if construction is not commenced within eighteen (18) months after receipt of this approval or if construction is suspended for a continuous period of one (1) year or more.

5. All requirements and conditions of this construction approval shall remain in effect unless modified in a manner consistent with procedures established pursuant to 326 IAC 2.

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

This significant source modification authorizes construction of the new emission units. Operating conditions shall be incorporated into the Part 70 operating permit as a significant permit modification in

accordance with 326 IAC 2-7-10.5(l)(2) and 326 IAC 2-7-12. Operation is not approved until the significant permit modification has been issued.

Pursuant to Contract No. A305-5-65, IDEM, OAQ has assigned the processing of this application to Eastern Research Group, Inc., (ERG). Therefore, questions should be directed to Mr. Stephen Treimel, ERG,1600 Perimeter Park Drive, Morrisville, North Carolina 27560, or call (919) 468-7902 to speak directly to Mr. Treimel. Questions may also be directed to Duane Van Laningham at IDEM, OAQ, 100 North Senate Avenue, Indianapolis, Indiana, 46204-2251, or call (800) 451-6027, ask for Duane Van Laningham, or extension 3-6878, or dial (317) 233-6878.

Sincerely,

Nisha Sizemore

Nisha Sizemore, Chief
Permits Branch
Office of Air Quality

Attachments
ERG/ST
cc: File - Montgomery County
U.S. EPA, Region V
Montgomery County Health Department
Air Compliance Section Inspector - Dick Sekula
Compliance Data Section
Administrative and Development
Technical Support and Modeling - Michele Boner
Billing, Licensing, and Training Section - Dan Stamatkin

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

Mitchell E. Daniels, Jr.
Governor

Thomas W. Easterly
Commissioner

100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251
(317) 232-8603
(800) 451-6027
www.IN.gov/idem

PART 70 SIGNIFICANT SOURCE MODIFICATION OFFICE OF AIR QUALITY

Nucor Steel
4537 South Nucor Road
Crawfordsville, Indiana 47933

(herein known as the Permittee) is hereby authorized to operate subject to the conditions contained herein, the source described in Section A (Source Summary) of this permit.

The Permittee must comply with all conditions of this permit. Noncompliance with any provisions of this permit is grounds for enforcement action; permit termination, revocation and reissuance, or modification; or denial of a permit renewal application. Noncompliance with any provision of this permit, except any provision specifically designated as not federally enforceable, constitutes a violation of the Clean Air Act. It shall not be a defense for the Permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit. An emergency does constitute an affirmative defense in an enforcement action provided the Permittee complies with the applicable requirements set forth in Section B, Emergency Provisions.

This permit is issued in accordance with 326 IAC 2 and 40 CFR Part 70 Appendix A and contains the conditions and provisions specified in 326 IAC 2-7 as required by 42 U.S.C. 7401, et. seq. (Clean Air Act as amended by the 1990 Clean Air Act Amendments), 40 CFR Part 70.6, IC 13-15 and IC 13-17. This permit also addresses certain new source review requirements for existing equipment and is intended to fulfill the new source review procedures pursuant to 326 IAC 2-2 and 326 IAC 2-7-10.5, applicable to those conditions.

Second Significant Source Modification No.: 107-24187-00038	
Issued by: Nisha Sizemore Nisha Sizemore, Chief Permits Branch Office of Air Quality	Issuance Date: June 19, 2007

SECTION A SOURCE SUMMARY

This permit is based on information requested by the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ). The information describing the source contained in Conditions A.1 through A.4 is descriptive information and does not constitute enforceable conditions. However, the Permittee should be aware that a physical change or a change in the method of operation that may render this descriptive information obsolete or inaccurate may trigger requirements for the Permittee to obtain additional permits or seek modification of this permit pursuant to 326 IAC 2, or change other applicable requirements presented in the permit application.

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

The Permittee owns and operates a stationary steel mini-mill.

Source Address:	4537 South Nucor Road, Crawfordsville, Indiana 47933
Mailing Address:	4537 South Nucor Road, Crawfordsville, Indiana 47933
General Source Phone Number:	(765) 364-1323
SIC Code:	3312
County Location:	Montgomery
Source Location Status:	Attainment for all criteria pollutants
Source Status:	Part 70 Permit Program Major Source, under PSD Rules Major Source, Section 112 of the Clean Air Act 1 of 28 Source Categories

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

This steel mini-mill consists of a source with on-site contractors:

(a) Nucor Steel, the primary operation, is located at 4537 South Nucor Road, Crawfordsville, Indiana, 47933;

(b) Whitesville Mill Processing, the supporting operation, is located at 4537 South Nucor Road, Crawfordsville, Indiana, 47933; and

(c) BOC Gases, the supporting operation, is located at 4537 South Nucor Road, Crawfordsville, Indiana, 47933.

(d) Heritage Environmental Services, the supporting operation, is located at 4537 South Nucor Road, Crawfordsville, Indiana, 47933.

One combined Part 70 permit will be issued to Nucor Steel, Whitesville Mill Processing, BOC Gases, and Heritage Environmental Services. The new plant ID for the combined source is 107-00038.

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

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

D.1 CASTRIP – VACUUM DEGASSER AND FLARE

(a) One (1) vacuum degasser with process gas lances, identified as V #1, constructed in 2004, to be modified in 2006, a maximum capacity of 270 tons of steel/hour, emissions controlled by a closed flare, and exhausting to Stack 500. This vacuum degasser removes entrained gases from the steel. Desulfurization and/or decarburization may also occur during the degassing process. The enclosed flare burner has a maximum heat input capacity of 2 MMBtu/hour, uses natural gas as its primary fuel with propane as back up fuel, and operates with a minimum temperature of 1,400 ^{o}F. The flare only operates when the vacuum degasser is in the degassing mode (i.e., when CO must be controlled).

D.2- CASTRIP – LOW NOx BOILER

(b) One (1) natural gas fueled low-NO_x boiler, identified as Boiler ID No. 501, constructed in 2004, a heat input capacity of 71.04 MMBtu/hour, utilizing low-NOx burners, and exhausting to Stack 501. This boiler provides steam to the vacuum degasser. Propane will be used as back up fuel.

Under 40 CFR Part 63, Subpart DDDDD, this unit is considered a new boiler in the large gaseous fuel subcategory.

Under 40 CFR Part 60, Subpart Dc, this unit is considered a steam generating unit.

D.3 - CASTRIP – PREHEATERS, DRYERS, AND ALLOY UNLOADING

(c) One (1) natural gas fueled ladle preheater, identified as LP-3, constructed in 2004, to be modified in 2006, a heat input capacity of 12 MMBtu/hour utilizing low NOx burners, emissions uncontrolled, and exhausting to a roof monitor (S-21, also identified as 105,106). Some emissions of this ladle preheater may also exhaust through the Castrip LMS Baghouse stack S-20. Propane will be used as back up fuel.

(d) Two (2) natural gas-fired ladle preheaters, identified as LP-1 and LP-2, and one (1) natural gas-fired ladle dryer identified as LD-1, each constructed in 2002, to be modified in 2007, a heat input capacity of 12 MMBtu/hour each, utilizing low-NOx burners, and the capability to utilize propane as a backup fuel. The preheaters exhaust to roof monitor S-21. The ladle dryer exhausts to baghouse stack S-20.

(e) Two (2) natural gas-fired tundish preheaters, identified as TP-1 and TP-2, constructed in 2002, to be modified in 2006, a heat input capacity of 10 MMBtu per hour each, utilizing oxy-fuel burners, and have the capability to utilize propane as a backup fuel. Emissions exhaust to LMS baghouse stack S-20.

(f) Two (2) natural gas-fired tundish nozzle preheaters identified as TNP-1 and TNP-2, to be modified in 2006. Each tundish nozzle preheater shall be equipped with low-NOx burners, shall not exceed a maximum heat input rate of 2 MMBtu per hour, and has the capability to utilize propane as a backup fuel. Combustion emissions exhaust to the LMS baghouse stack identified as S-20.

(g) Three (3) natural gas-fired tundish dryers, identified as TD-1, TD-2, and TD-3, constructed in 2002, to be modified in 2006, with a maximum heat input capacity of 4 MMBtu per hour, 3 MMBtu per hour, and 1 MMBtu per hour, respectively, utilizing low-NOx burners, and having the capability to utilize propane as a backup fuel. Emissions exhaust to roof monitor S-21.

(h) Two (2) natural gas-fired transition piece preheaters, identified as TPP-3 and TPP-4, and two (2) natural gas-fired transition piece dryers, identified as TPD-1 and TPD-2, constructed in 2002, to be modified in 2006. The two (2) transition piece preheaters have a heat input capacity of 2 MMBtu per hour each for a combined total capacity of 4.0 MMBtu per hour, the two (2) transition piece dryers have heat input capacity of 0.15 MMBtu per hour each, utilizing low-NOx burners. The preheaters exhaust to baghouse stack S-20. The dryers exhaust to roof monitor S-21. The preheaters are used in the tundish operation located on the caster deck. The transition piece preheaters and transition piece dryers utilize propane as a backup fuel.

(i) Associated VTD alloy unloading, storage and feed systems, identified as AU-2, constructed in 2005, and consisting of:

(1) One (1) alloy truck dump station.

(2) Truck unloading/conveyors.

(3) Storage hoppers, all exhausting to a common bin vent, rated at 0.01 grains per dry standard cubic foot, into the building.

Alloy unloading is performed in a 3-sided building along the side of the existing Castrip building. Emissions exhaust to the atmosphere.

(j) Dumping, storage, and transfer operations of alloy raw materials for the strip caster plant, identified as AU-1 and constructed in 2002.

D.4 - CASTRIP – LMS, TUNDISH, AND CONTINUOUS STRIP CASTER

(k) A strip caster line rated at a maximum steel production rate of 270 tons per hour consisting of:

(1) One (1) ladle metallurgy station, identified as LMS-2, constructed in 2002, to be modified in 2006, and maximum production capacity of 270 tons of steel per hour, and emissions captured by a side draft hood that has a PM capture efficiency of 99 percent and controlled by the LMS-2 baghouse, and exhausting to the LMS-2 baghouse stack identified as S-20. The remaining uncontrolled emissions shall be exhausted through the LMS-2 roof monitor identified as S-21. The LMS-2 baghouse has an enclosed dust handling system or equivalent for material recovery and particulate matter control.

(2) Tundishes, identified as T-1, constructed in 2002, to be modified in 2006, with a maximum production capacity of 270 tons of steel per hour. The two (2) natural gas-fired tundish preheaters, identified as TP-1 and TP-2 and the three (3) natural gas-fired tundish dryers, identified as TD-1, TD-2 and TD-3, supply heat to the tundish. Only one (1) tundish may be operated at a given time. The tundish in operation feeds the molten metal from the LMS-2 ladle to one (1) continuous strip caster identified as CS-1.

(3) One (1) continuous strip caster, identified as CS-1, constructed in 2002, to be modified in 2006, a maximum capacity of 270 tons of steel per hour, and emissions captured by a canopy hood that has a PM capture efficiency of 98 percent. The captured PM in the gas stream shall be controlled by the LMS-2 baghouse and the gas stream shall be exhausted though the LMS-2 baghouse stack identified as S-20. The remaining uncontrolled emissions shall be exhausted through the LMS-2 roof monitor identified as S-21.

D.5 – **INSIGNIFICANT ACTIVITIES – MISCELLANEOUS SILOS (**See Condition A.4)

D.6 – INSIGNIFICANT ACTIVITIES – CASTRIP – COILERS, COIL CUTTING, AND HOT ROLLING STAND (See Condition A.4)

D.7 – **WASTEWATER TREATMENT PLANT**

(l) One wastewater treatment plant, identified as WWTP, constructed in September 2002, consisting of two water recovery systems i.e. oil/alkali wastes and acid rinse water, and surge vessels for the regenerated acid, acid rinse water and spent pickle liquor. The WWTP consists of following:

(1) Oily waste tanks:

(A) Two (2) batch treatment tanks, identified as T-853 and T-854, with a maximum capacity of 12,000 gallons each, with emissions uncontrolled, and exhausting inside the building.

(B) One (1) decant oil tank, identified as T-856, with maximum capacity of 9,000 gallons with emissions uncontrolled, and exhausting inside the building.

(C) One (1) oily waste evaporator feed tank, identified as T-858, with maximum capacity of 20,000 gallons with emissions uncontrolled.

(D) One (1) oily waste evaporator concentrate tank, identified as T-857, with maximum capacity of 20,000 gallons with emissions uncontrolled, and exhausting inside the building.

(2) Acid tanks:

(A) Three (3) acid rinse water surge tanks, identified as T-850, T-851 and T-852, with a maximum capacity of 33,000 gallons each, with emissions controlled by the pickle line scrubber #1, and exhausting to stack S-17.

(B) One (1) lime neutralization tank, identified as T-875, with maximum capacity of 10,000 gallons, with emissions controlled by a wet particulate scrubber, and exhausting to stack S-60.

(C) One (1) acidic rinse evaporator feed tank, identified as T-877, with maximum capacity of 20,000 gallons with emissions uncontrolled and exhausting to stack S-17.

(D) One (1) acidic rinse evaporator concentrator tank, identified as T-878, with maximum capacity of 20,000 gallons with emissions uncontrolled and exhausting to stack S-17.

(3) Two (2) closed chamber type evaporators, identified as EV-1 and EV-2, each with a maximum capacity of 1,800 gallons per hour. This is a closed loop system with no emissions.

(m) Three (3) regenerated acid tanks, identified as T-867, T-868 and T-869, constructed in September 2002, with a maximum capacity of 33,000 gallons each, with emissions controlled by the pickle line scrubber, and exhausting to S-17.

Under 40 CFR Part 63, Subpart CCC, these units are considered new hydrochloric acid storage vessels.

(n) Four (4) spent pickle liquor tanks, identified as T-863, T-864, T-865 and T-866, constructed in September 2002, each with a maximum capacity of 33,000 gallons each, with emissions controlled by the pickle line scrubber, and exhausting to S-17.

(o) Lime silo system, constructed in 1989 and relocated in September 2002, including the following equipment:

(1) One (1) lime silo, identified as TFS-1, with a maximum capacity of 60,000 pounds.

(2) One (1) live bin bottom.

(3) One (1) screw conveyor.

(4) One (1) wet particulate scrubber.

D.8 – SLAG PROCESSING

(p) Slag processing, identified as EU-10, constructed in 1989, is performed by Whitesville Mill Service Company, an on-site contractor. Slag and other steel mill related materials are transported by slag pots or other mobile equipment, processed, and stockpiled with a maximum throughput of 305 tons/hr. This emission unit consists of storage piles (unprocessed and processed slag), grizzly feeding, slag processing (screening,

conveying, and crushing), slag pot dumping, product loading for transport, and unpaved roads. The fugitive emissions from slag processing are controlled by water sprays and exhaust to the atmosphere.

(q) One (1) mill scale screen and conveyor system, identified as MSS-1, constructed in 2001, with a maximum throughput rate of 350 tons of mill scale per hour, with emissions uncontrolled, and exhausting to the atmosphere.

D.9 – BOC GASES PLANT

(r) The BOC Gases Plant is operated by BOC Gases, an on-site contractor. It provides gases (oxygen, nitrogen, hydrogen, argon, and liquid air) consisting of:

(1) One (1) natural gas fired boiler, identified as ID No.306, yet to be constructed, with a heat input capacity of 15.0 MMBtu per hour, with emissions controlled by low NOx burners, and exhausting to stack S-38. This boiler uses propane as a backup fuel.

Under 40 CFR Part 63, Subpart DDDDD, this unit is considered a new boiler in the large gaseous fuel subcategory.

Under 40 CFR Part 60, Subpart Dc, this unit is considered a steam generating unit.

(2) One (1) natural gas-fired boiler identified as ID No. 1, constructed in 1989, with a heat input capacity of 9 MMBtu per hour, with emissions uncontrolled, and exhausting to stack S-36. This boiler uses propane as a backup fuel.

Under 40 CFR Part 63, Subpart DDDDD, this unit is considered an existing boiler in the small gaseous fuel subcategory.

(3) One (1) natural gas-fired boiler, identified as ID No. 2, constructed in 1994, with a heat input capacity of 15.0 MMBtu per hour, with emissions uncontrolled, and exhausting to stack S-37. This boiler uses propane as a backup fuel.

Under 40 CFR Part 63, Subpart DDDDD, this unit is considered an existing boiler in the large gaseous fuel subcategory.

Under 40 CFR Part 60, Subpart Dc, this unit is considered a steam generating unit.

(4) One (1) natural gas-fired boiler, identified as the hydrogen plant boiler, constructed in 1996, with a heat input capacity of 9.98 MMBtu per hour, with emissions uncontrolled, and exhausting to stack S-30. This boiler uses propane as a backup fuel.

Under 40 CFR Part 63, Subpart DDDDD, this unit is considered an existing boiler in the small gaseous fuel subcategory.

D.10 – INSIGNIFICANT ACTIVITIES – PAVED AND UNPAVED ROADS (See Condition A.4)

D.11 – PETROLEUM PRODUCT STORAGE

(s) One (1) 500 gallon aboveground gasoline storage tank, identified as GST #1, installed in 1988, using submerged filling technology to control VOC emissions, which exhausts to the atmosphere.

(t) Three (3) 500 gallon aboveground diesel storage tanks, identified as DST #1, DST #2, and DST #3, all installed in 1988, using submerged filling technology to control VOC emissions, which exhausts to the atmosphere.

(u) One (1) 5,000 gallon aboveground diesel storage tank, identified as DST #4, installed in 1988, using submerged filling technology to control VOC emissions, which exhausts to the atmosphere.

D.12 – COOLING TOWERS

(v) The contact and noncontact cooling towers are equipped with drift eliminators. Each cooling tower exhausts to the atmosphere.

Cooling Towers	No. of Cells	Design Capacity (gal/min)	Cooling Towers	No. of Cells	Average Capacity (gal/min)
Meltshop Non Contact	9	60,000	Galvanizing/Annealing Non Contact	2	6,500
Meltshop Caster Contact	4 **2**	5,000	Annealing Non Contact	2	5,000
Meltshop Caster Contact (expansion)	2	5,000	Castrip Contact	4	12,000
Hot Mill Contact	4	16,383	Castrip Non Contact	7	14,400
Hot Mill Contact (expansion)	1	4,000	Castrip Compressor Non Contact	3	2,400
Hot Mill Non Contact	4	25,319	BOC Non Contact (CT-91A)	1	750
Laminar Contact	3	11,600	BOC Non Contact (CT-91B)	2	3,200
Cold Mill Non Contact	2	10,000	Main Compressor Non Contact	4	3,200
Cold Mill Non Contact (expansion)	1	5,000			
Vacuum Degasser Contact	1	8,000	Vacuum Degasser Non Contact	1	8,000

D.13 – INSIGNIFICANT ACTIVITIES – SCRAP HANDLING AND PROCESSING

(See Condition A.4)

D.14 – EMERGENCY GENERATORS

(w) Diesel fired generators and air compressors for power outages and emergencies.

(1) Cold Mill generator, identified as GEN #3, constructed in 1997, with a capacity of 280 HP, with emissions uncontrolled.

(2) Hot Mill NC Cooling Tower generator, identified as GEN #1, constructed in 1989, with a capacity of 2,100 HP, with emissions uncontrolled.

(3) Galv Line Pot generator, identified as GEN #4, constructed in 1992, with a capacity of 890 HP, with emissions uncontrolled.

(4) MS Cooling Tower Cold Well generator, identified as GEN #2, constructed in 1996, with a capacity of 2,520 HP, with emissions uncontrolled.

D.15 – INSIGNIFICANT ACTIVITIES – GASOLINE DISPENSING FACILITIES
(See Condition A.4)

D.16 – COLD MILL – PICKLE LINES 1 AND 2

(x) Both Pickle Lines use enhanced HCl pickling solution and rinse water and are equipped with process tanks.

(1) Pickle Line 1, identified as PL1, constructed in 1988, with a maximum capacity of 250 tons/hr, controlled by a counter flow-packed scrubber and mist eliminators, and exhausting to stack S-17. The Pickle Line 1 scrubber has a design flow rate of 12,000 acf/min and a loading of 0.01 gr/dscf. Each pickle line has an electric static oiler.

Under 40 CFR Part 63, Subpart CCC, Pickle Line 1 is considered an existing continuous pickle line.

(2) Pickle Line 2, consisting of the following units:

(A) One (1) Pickle Line, identified as PL2, constructed in 1997, with a maximum capacity of 250 tons/hr, controlled by a tray scrubber and mist eliminators, and exhausting to stack S-18. The Pickle Line 2 scrubber has a design flow rate of 9,000 acf/min and a loading of 0.01 gr/dscf. Each pickle line has an electric static oiler.

Under 40 CFR Part 63, Subpart CCC, Pickle Line 2 is considered a continuous pickle line.

(B) One (1) acidless metal cleaning line, identified as AMC, approved for construction in 2007, located on Pickle Line 2, with a maximum throughput capacity of 250 tons of steel per hour, using continuous abrasive blasting to remove scale from steel coil, with a maximum blast rate of 272,160 pounds of steel grit/shot per hour, with particulate emissions controlled by a baghouse, and exhausting to stack S-AMC.

(3) The tank farm treats the rinse water from Pickle Line 1 and Pickle Line 2. These tanks also store spent acid, raw acid, regenerated acid, oily wastewater treated waters for reuse, treatment process wastewater, and other process and treated waters.

Under 40 CFR Part 63, Subpart CCC, the tanks that store virgin or regenerated hydrochloric acid are considered new hydrochloric acid storage vessels.

D.17 – COLD MILL – COLD REVERSING MILL 1 AND COLD MILL BOILER (CMB #1)

(y) Cold Reversing Mill 1, identified as EU-09, constructed in 1988, with a maximum capacity of 250 tons/hour. Emulsion oil is sprayed on the strip, controlled by hoods mounted on both sides of the mill stand and exhausting, through collision mist eliminators at a design flow rate of 84,000 acf/min and 0.01 gr/dscf, to stack S-32.

(z) One (1) natural gas fueled Cold Mill Boiler, identified as CMB#1, constructed in 1988, with a heat input capacity of 34 MMBtu per hour, with emissions uncontrolled and exhausting to stack S-19. The boiler uses propane as a backup fuel.

Under 40 CFR Part 63, Subpart DDDDD, this unit is considered an existing boiler in the large gaseous fuel subcategory.

Under 40 CFR Part 60, Subpart Dc, this unit is considered a steam generating unit.

D.18 – COLD MILL – COLD MILL BOILER (CMB#2)

(aa) One (1) natural gas fueled Cold Mill Boiler (CMB #2), identified as EU-19, with a heat input capacity of 34 MMBtu per hour, with emissions exhausting to stack S-23. Propane is used as a back-up fuel. The Cold Mill Boiler (CMB #2) is not yet installed.

Under 40 CFR Part 63, Subpart DDDDD, this unit is considered a new boiler in the large gaseous fuel subcategory.

Under 40 CFR Part 60, Subpart Dc, this unit is considered a steam generating unit.

D.19 – COLD MILL – REVERSING AND TEMPERING (R/T) MILL

(bb) Reversing and Tempering (R/T) Mill, (previously known as Temper Mill), identified as EU-14, constructed in 1995, with a maximum capacity of 250 tons of steel per hour, with emulsion oil sprayed on the strip, and controlled by hoods mounted on both sides of the mill stand and a fabric filter, exhausting through a panel-type collision mist eliminators to stack S-22. The panel-type collision mist eliminator has a design flow rate of 84,000 acf/min and an outlet grain loading of 0.01 gr/dscf. Note: This mill can reverse and temper. The mist eliminators operate as controls only when the mill is operating as a cold reversing mill.

D.20 – COLD MILL – ALKALINE CLEANING STATION

(cc) Alkali Cleaning at the Galvanizing line with mist eliminator as control. Emissions are exhausted to stack #510. The Alkaline Cleaning Station has a capacity of 140 tons of steel per hour.

D.21 – COLD MILL – ANNEALING FURNACES

(dd1) Nineteen (19) natural gas-fueled batch Annealing Furnaces, identified as EU-03, constructed in 2001 and 2006. Each has a heat input capacity of 4.8 MMBtu per hour and a maximum throughput capacity of 200 tons of steel per hour. Emissions are uncontrolled and exhaust to roof vent (S-26).

(dd2) One (1) natural gas-fired annealing furnace, identified as AN-19, approved for construction in 2007, with a heat input capacity of 4.8 MMBtu per hour and a maximum throughput capacity of 200 tons of steel per hour, using propane as a backup fuel, with uncontrolled emissions exhausting to roof vent (S-26).

D.22 – INSIGNIFICANT ACTIVITIES – COLD MILL – QUALITY CONTROL/REWIND INSPECTION LINE (See Condition A.4)

D.23 – COLD MILL – ACID REGENERATION

(ee) Acid Regeneration system, identified as EU-04, constructed in 1989, consisting of two natural gas fueled tangentially fired burners with a maximum rating of 5.6 MMBtu per hour, and an absorber and cyclone with emissions controlled by its own counter flow packed scrubber (identified as AR scrubber) with mist eliminator exhausting to stack S-31. The counter flow-packed scrubber has a design flow rate of 4,269 acf/min and loading of 0.04 gr/dscf. Propane is used as back up fuel.

Under 40 CFR Part 63, Subpart CCC, this unit is considered an existing acid regeneration plant.

D.24 – COLD MILL – GALVANIZING LINE

(ff) Thirty six (36) Main Burners, identified as PHB #1 – PHB #36, constructed in 1992, and modified in 2002, input capacity of 1.622 MMBtu per hour each, and three (3) Auxiliary Burners, each with a heat input capacity of 0.1 MMBtu per hour in the preheat furnace

section of the galvanizing line using natural gas rated at maximum total capacity of 58.7 MMBtu per hour. The main burners exhaust to stack S-27. The three (3) Auxiliary Burners exhaust to the atmosphere. The NOx emissions are controlled by a Selective Catalytic Reduction/Selective Non-Catalytic Reduction (SCR/SNCR) Systems. Exhausts to roof ventilation. The galvanizing line has an electric static oiler. A continuous emissions monitor (CEM) is used to monitor NOx emissions.

(gg) Additional burners as follows:

(1) Forty four (44) Burners, identified as RB#1 – RB#44, constructed in 2002, each with a heat input capacity of 0.323 MMBtu per hour in radiant tube section with a maximum total capacity of 14.2 MMBtu per hour and option to replace non-conforming burners. The NOx emissions are controlled by SCR System. Exhausts to stack S-27. The SCR/SNCR and SCR systems shall be referred to collectively as the SCR/SNCR system.

(2) One (1) auxiliary burner with a maximum heat input of 3.2 MMBtu/hr in the Alkaline Cleaning Section. The burner is natural gas fired and use propane as backup.

(3) Two (2) auxiliary burners with a maximum heat input of 1.5 MMBtu/hr each in the Strip Dryer Section. The burners are natural gas fired and use propane as backup.

(4) Four (4) auxiliary burners with a maximum heat input of 0.052 MMBtu/hr each in the Pot Roll Heater. The burners are natural gas fired and use propane as backup.

(5) Two (2) emergency burners with a maximum heat input of 0.58 MMBtu/hr each in the Zinc Pot Section. The burners are natural gas fired and use propane as backup.

(6) Two (2) auxiliary burners with a maximum heat input of 0.013 MMBtu/hr each in the Preheat open end burners section. The burners are natural gas fired and use propane as backup.

The SCR/SNCR and SCR systems shall be referred to collectively as the SCR/SNCR system.

(hh) One (1) Zinc Coating pot, identified as ZP#1, constructed in 1992, with a maximum capacity of 140 tons of steel per hour, uncontrolled and exhausting to the atmosphere.

D.25 – INSIGNIFICANT ACTIVITIES – WELDING (See Condition A.4)

D.26 – INSIGNIFICANT ACTIVITIES – MISCELLANEOUS SHEARS, SIDE TRIMMERS, AND SCRAP CUTTING (See Condition A.4)

D.27 – HOT STRIP MILL & TUNNEL FURNACE SYSTEM

(ii) The Hot Strip Mill, identified as HSM, constructed in 1989, with a maximum capacity of 502 tons/hour consisting of various rolling mill processes: Shearing, Descaling, Finishing, Rollout Table, Coilers, Skin Pass Mill and Roll Grinders. Parts of the Hot Mill Strip are controlled by water roll cooling.

(jj) Tunnel Furnace System, identified as EU-02, constructed in 1989, with a maximum capacity of 502 tons/hour, with a maximum total heat input capacity of 200 MMBtu per hour, emissions uncontrolled, tunnel furnace 1 exhausts to stack S13 and S14, tunnel furnace 2 exhausts to stack S15, and consisting of:

(1) Tunnel Furnace 1 – Natural gas fired with a heat input capacity of 84 MMBtu per hour. Tunnel Furnace 1 was constructed in 1989 as part of the original Tunnel Furnace System.

(2) Tunnel Furnace 2 – Natural gas fired with a heat input capacity of 84 MMBtu per hour. Tunnel Furnace 2 was constructed in 1994.

(3) Shuttle Furnaces 1 and 2 – Natural gas fired with a heat input capacity of 13 MMBtu per hour each using low NOx burners. Shuttle Furnaces 1 and 2 were constructed in 1994.

(4) Snub Furnace – Natural gas fired with a heat input capacity of 6 MMBtu per hour. The snub furnace was constructed in 1989 and modified in 1994.

D.28 – HOT STRIP MILL – ANNEALING FURNACES

(kk) Four (4) natural gas-fired annealing furnaces using propane as a backup fuel, identified as HM #1-HM #4, each with a maximum heat input capacity of 14.505 MMBtu per hour. Emissions are controlled by low NOx burners and exhaust to the atmosphere. HM#1 and HM#2 were installed in 2006. HM#3 and HM#4 were not installed yet.

D.29 – INSIGNIFICANT ACTIVITIES – DEGREASING (See Condition A.4)

D.30 – MELT SHOP – MATERIAL TRANSFER STATION

(ll) Material transfer station #1, located inside the building exhausting to general ventilation, which will service both the EAFs and the LMFs, used to transfer various types and grades of lime, carbon, foamy slag, scrap, scrap substitutes, and other alloys from rail cars. Railcars are unloaded to trucks, silos, or the meltshop alloy handling system. Identified as MT #1, constructed in 2003, and consisting of:

(1) Rail car bottom unloading through a rubber boot to a conveyor with emissions uncontrolled.

(2) One (1) totally enclosed conveyor, identified as MTC, constructed in 2003, with emissions controlled by a bin vent dust collector and exhausting to stack S-45.

(3) One (1) loading spout connected to the load truck with emissions uncontrolled.

(mm) Material transfer station #2, located outside the building and exhausting to the atmosphere, which services the EAFs and the LMFs, used to transfer various types and grades of lime, carbon, foamy slag, scrap, scrap substitutes, and other alloys from rail cars. Railcars are unloaded to trucks, silos, or the meltshop alloy handling system. Identified as MT #2, constructed in 2006, and consisting of:

(1) Ten (10) storage silos, each controlled by individual bin vent filters or the Meltshop EAF baghouses (1 and 2).

(2) One (1) rail unloading operation under a roof.

(3) One (1) truck dumping station enclosed by a three sided building.

(4) One (1) loader dumping station enclosed by a three sided building.

(5) Associated enclosed conveyors.

(6) Storage bins.

(7) Misc. feed equipment and controls.

D.31 – MELTSHOP– ELECTRIC ARC FURNACES, ARGON OXYGEN DECARBURIZATION (AOD) VESSELS, DESULFURIZATION, CONTINUOUS CASTERS, EAF DUST TREATMENT FACILITY

(nn) Two (2) Meltshop Electric Arc Furnaces (EAFs), identified as EAF #1 and EAF #2, constructed in 1989, together with the Argon Oxygen Decarburization (AOD) have a maximum capacity of 502 tons/hour, with emissions controlled by multi compartment reverse air type baghouses (identified as Meltshop EAF Baghouse1 and Meltshop EAF Baghouse2). A continuous emission monitor (CEM) is used to monitor NOx, CO, and SO_2 emissions from the EAFs.

Under 40 CFR Part 60, Subpart AAa, these units are considered electric arc furnaces.

(1) The EAFs also utilize the following technologies:

(A) A direct shell evacuation (DSE) control system ("a fourth hole duct"),

(B) An overhead roof exhaust system consisting of canopy hoods,

(C) Oxy fuel burners, and

(2) Each or any combination of the Meltshop EAFs and AOD can independently produce the maximum capacity of 502 tons/hour of steel. Each Meltshop EAF can operate concurrently or independently to achieve this maximum capacity.

(3) Both the Meltshop EAF Baghouse1 and Meltshop EAF Baghouse2 capture the emissions from the Meltshop EAFs, AOD vessel, Desulfurization, Meltshop Continuous Casters and other miscellaneous sources. Each Meltshop Baghouse can sufficiently control emissions independently. Each Meltshop EAF Baghouse serves as a back up control to the Meltshop LMFs.

(A) The Meltshop EAF Baghouse1 is a multi compartment positive pressure baghouse, has a design air flow rate of 1,527,960 actual cubic foot/min (acf/min) and an outlet PM loading of 0.0018 grains/dry standard cubic foot (gr/dscf). This Meltshop EAF Baghouse1 exhausts to a roof vent/monitor identified as vent BH1.

(B) The Meltshop EAF Baghouse2 is a multi compartment positive pressure baghouse, has a design flow rate of 915,000 dscf/min and 1,200,000 acf/min and an outlet PM loading of 0.0018 gr/dscf. This Meltshop EAF Baghouse2 exhausts to a stack identified as BH2.

(4) The fugitive emissions generated during the furnace operations are captured by the Meltshop Roof Canopies or contained within the Meltshop Building.

(5) The Meltshop roof monitors include exhausts from the ladle preheaters, ladle dryers, tundish preheaters, tundish dryers, ladle lancing station, tundish dumping, fugitive emissions from the LMFs, fugitive emissions from the Meltshop Casters and other Meltshop operations.

(oo) Argon oxygen decarburization (AOD) vessels, identified as AODs, constructed in 1995, together with the Meltshop EAFs have a total maximum capacity of 502 tons/hour, with emissions controlled by the Meltshop EAF Baghouse1 which exhausts to a roof vent/monitor identified as vent BH1, and Meltshop EAF Baghouse2 which exhausts to stack BH2. Only 1 AOD vessel can operate at a time.

Under 40 CFR Part 60, Subpart AAa, these units are considered argon-oxygen decarburization vessels.

(pp) Desulfurization (DS) is an additional step in the Meltshop operations that remove sulfur. It has a maximum capacity of 502 tons of metal per hour.

(qq) Two (2) Meltshop Continuous Casters, identified as CC #1 and CC #2, CC #1 was constructed in 1989, CC #2 was constructed in 1994, with total maximum capacity of 502 tons/hour, with emissions controlled by the Meltshop EAF Baghouse1 identified as vent BH1 which exhausts to a roof vent/monitor or Meltshop EAF Baghouse2 which exhausts to stack BH2. The steam from the Meltshop Continuous Casters exhausts through stack S-11.

(rr) An EAF dust treatment facility, identified as DTF, constructed in 2004, with a capacity of 100,000 lb/hour, with emission control by bin vents for the silos, scrubber for dust treatment and baghouse for truck loading. Dust transfer will also occur inside the building.

Under 40 CFR Part 60, Subpart AAa, this unit is considered a dust handling system. Options for the dust transfer are:

(1) from silo to truck through a loading spout,

(2) from silo to railcar through a loading spout,

(3) From silo to truck through a loading spout to transfer to the existing Meltshop EAF Baghouses. Unloading from the truck at the existing Meltshop EAF Baghouses also occurs in the building, transferring the dust through augers and a bucket elevator to the existing silo. In this option, the existing EAF dust treatment will have a maximum capacity of 100,000 lb/hr.

(4) Treating dust at the new silo and transferring to a truck. No loading spout is necessary because the material is no longer dusty, as treated.

The EAF dust treatment facility consists of the following:

(A) One (1) lime storage silo, identified as HRE #1, constructed in 1999, with a maximum capacity of 109 tons, emissions controlled by a bin vent filter, and exhausting to stack HR/E-2. Lime is pneumatically loaded to the silo at a maximum transfer rate of 40,000 pounds per hour.

(B) One (1) pugmill, identified as PM, constructed in 1999, with a maximum capacity of 100,000 pounds per hour, emissions controlled by one (1) cyclone in series with one (1) venturi scrubber, and exhausting to stack HR/E-1. Lime is transferred to the pugmill via a screw conveyor system at a maximum transfer rate of 5,100 pounds per hour and EAF dust is transferred to the pugmill via gravity through an enclosed cone bottom loading spout at a maximum transfer rate of 100,000 pounds per hour.

D.32 – MELTSHOP – LADLE METALLURGY FURNACES, PREHEATERS, AND DRYERS

(ss) Two (2) Meltshop Ladle Metallurgy Furnaces (LMFs)/Stirring Station, identified as EU-13, constructed in 1988, with a maximum capacity of 502 tons/hour each and controlled by a baghouse, identified as Meltshop LMF Baghouse, exhausting to stack S-13. The Meltshop LMF Baghouse has a design flow rate of 200,000 acf/min. The LMF baghouse was constructed in 1992.

(1) Ladle Preheaters, identified as LP #1 through LP #7, consisting of:

(A) Three (3) natural gas-fired ladle preheaters, identified as LP #1, LP #2, and LP #3, each constructed in 1989, approved for replacement in 2007, each with a heat input capacity of 10 MMBtu per hour, using propane as a backup fuel, with uncontrolled emissions exhausting to stacks 7 and 8.

(B) One (1) natural gas-fired AOD ladle preheater, identified as LP #4, approved for construction in 2007, with a heat input capacity of 10 MMBtu per hour, using propane as a backup fuel, with uncontrolled emissions exhausting to stacks 7 and 8.

(C) One (1) natural gas-fired ladle preheater, identified as LP #5, constructed in 1989, approved for replacement in 2007, with a heat input capacity of 10 MMBtu per hour, using propane as a backup fuel, with uncontrolled emissions exhausting to stacks 7 and 8.

(D) One (1) natural gas-fired ladle preheater, identified as LP #6, approved for construction in 2004, with a heat input capacity of 12 MMBtu/hour, utilizing low-NOx burners, using propane as a backup fuel, with uncontrolled emissions exhausting to stacks 7 and 8.

(E) One (1) natural gas-fired ladle preheater/dryer, identified as LP #7, approved for construction in 2007, with a heat input capacity of 10 MMBtu/hour, using propane as a backup fuel, with uncontrolled emissions exhausting to stacks 7 and 8.

(2) One (1) natural gas-fired Ladle Dryer, identified as LDS #1, constructed in 1989, approved for replacement in 2007, with a heat input capacity of 5 MMBtu per hour, using propane as a backup fuel, with uncontrolled emissions exhausting to stack S-12.

(3) Four (4) Tundish Preheaters, identified as TPH #1 - #4, constructed in 1995, consisting of 4 low NOx natural gas fired heaters, each with a heat input capacity of 6 MMBtu per hour, using propane as a backup fuel, with uncontrolled emissions exhausting to stack S-10.

(4) Two (2) Tundish Dryout Stations, identified as TD #1 and TD #2. TD #1 was constructed in 1989, and TD#2 was constructed in 1990, each with a heat input capacity of 9 MMBtu per hour, using propane as a backup fuel, with uncontrolled emissions exhausting to stack S-10.

(5) Four (4) Tundish Nozzle Preheaters, identified as TNP #1- #4, constructed in 1995, consisting of a low NOx natural gas fired Preheaters, each with a heat input capacity of 0.8 MMBtu per hour, using propane as a backup fuel, with uncontrolled emissions exhausting to stack S-10.

(6) One (1) natural gas-fired tundish dryout station, identified as TD #3, approved for construction in 2007, with a maximum heat input capacity of 2.4 MMBtu per hour, using propane as a backup fuel, with uncontrolled emissions exhausting to stack S-10.

(7) Two (2) natural gas-fired mandrel dryers, identified as MD #1 and MD #2, approved for construction in 2007, each with a heat input capacity of 1.5 MMBtu per hour, using propane as a backup fuel, with uncontrolled emissions exhausting to stack S-10.

D.33 – INSIGNIFICANT ACTIVITIES – MELTSHOP (See Condition A.4)

D.34 – INSIGNIFICANT ACTIVITIES – MISCELLANEOUS SILOS (See Condition A.4)

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

This stationary source also includes the following insignificant activities which are specifically regulated, as defined in 326 IAC 2-7-1(21):

D.5 – INSIGNIFICANT ACTIVITIES – MISCELLANEOUS SILOS

(a) Raw materials handling/storage, including silos which contain the following materials:

(1) One (1) lime silo TFS-1.

(2) Baghouse #1 lime silo (HRE #1).

(3) One (1) Iron Oxide Silo (IOS #1).

(4) Three (3) Baghouse Dust Silos (BHS#1, BHS#2, BHS#3).

(5) One (1) Soda Ash Silo (SAS #1) (this will become the sand silo).

(6) One (1) Iron Carbide Silo #1 (no longer in service).

(7) One (1) Lime Silo (#1 SEAF).

(8) One (1) Lime Silo (#2 SEAF).

(9) One (1) Lime Silo (#3 NEAF).

(10) One (1) Lime Silo (#4 NEAF).

(11) One (1) Injection Carbon Silo #1.

(12) One (1) Injection Carbon Silo #2.

(13) One (1) Charge Carbon Silo #1.

(14) One (1) Charge Carbon Silo #2.

(15) Three (3) AOD alloy system silos (AOD#1, AOD#2, and AOD#3).

(16) Ten (10) Melt Shop Alloy Feed System silos (MS alloy #1, MS alloy #2, MS alloy #3, MS alloy #4, MS alloy #5, MS alloy #6, MS alloy #7, MS alloy #8, MS alloy #9, MS alloy #10).

D.6 – INSIGNIFICANT ACTIVITIES – CASTRIP – COILERS, COIL CUTTING, AND HOT ROLLING STAND

Activities with emissions equal to or less than the thresholds provided in 326 IAC 2-7-1(21):

(b) Two (2) coilers, identified as C-1 and C-2, constructed in 2002. Fugitive particulate emissions from this process are controlled by the application of water to the coilers and exhausting to the roof monitor S-21. These coil the steel strip from the continuous strip caster.

(c) Scrap coil cutting in the Castrip area, identified as CC-1, constructed in 2002, occurs on an as needed basis, controlled by the Castrip LMS Baghouse and exhausting to stack S-20.

(d) Two (2) hot rolling stands, identified as HRS #1 and HRS #2, constructed in 2002. These stands roll the steel strip from the continuous strip caster to the desired gauge. Fugitive particulate emissions controlled by the application of water to the steel strip, and exhausting to the LMS roof monitor identified as S-21.

D.10 – INSIGNIFICANT ACTIVITIES – PAVED AND UNPAVED ROADS

(e) Paved and unpaved roads and parking lots with public access. Transport on new and existing paved roadways and parking lots, unpaved roadways, and unpaved areas around existing raw material storage piles.

D. 13 – INSIGNIFICANT ACTIVITIES – SCRAP HANDLING AND PROCESSING

Activities with emissions equal to or less than the thresholds provided in 326 IAC 2-7-1(21):

(f) Scrap handling, processing and cutting of ferrous metals and scrap substitutes. These activities exhaust indoors to general ventilation which in turn exhausts to Meltshop EAF baghouses 1 and 2.

D.15 – INSIGNIFICANT ACTIVITIES – GASOLINE DISPENSING FACILITIES

(g) A gasoline fuel transfer and dispensing operation handling less than or equal to 1,300 gallons per day, such as filling of tanks, locomotives, automobiles or other mobile equipment, having a storage capacity less than or equal to 10,500 gallons.

(1) Two (2) 10,000 gallon gasoline storage tanks, each handling less than 1,000 gallons per day.

(2) Two (2) 10,000 gallon diesel storage tanks, each handling less than 3,000 gallons per day.

(3) One (1) 1,000 gallon diesel storage tank handling less than 500 gallons per day.

D.22 – INSIGNIFICANT ACTIVITIES – COLD MILL – QUALITY CONTROL/REWIND INSPECTION LINE

Activities with emissions equal to or less than the thresholds provided in 326 IAC 2-7-1(21):

(h) The unwinding and rewinding of steel coil for quality control inspections.

D.25 – INSIGNIFICANT ACTIVITIES – WELDING

(i) The following equipment related to manufacturing activities not resulting in the emission of HAPs: brazing equipment, cutting torches, soldering equipment, welding equipment including the galvanizing line welder.

(j) Structural steel and bridge fabrication activities using 80 tons or less of welding consumables.

D.26 – INSIGNIFICANT ACTIVITIES – MISCELLANEOUS SHEARS AND SIDE TRIMMERS

Activities with emissions equal to or less than the thresholds provided in 326 IAC 2-7-1(21):

(k) Various shears located at various sites throughout the facility.

(l) Three (3) side trimmers in total. The side trimmers are located at the skin pass mill and at both pickle lines. Various side trimmers located at various sites throughout the facility.

D.29 – INSIGNIFICANT ACTIVITIES – DEGREASING

(m) Activities with emissions equal to or less than the thresholds provided in 326 IAC 2-7-1(21) consisting of: Degreasing operations, identified as DG, with a maximum throughput greater than 145 gallons per 12 months, uncontrolled and exhausting to the atmosphere.

D.33 – INSIGNIFICANT ACTIVITIES – MELTSHOP

(n) Activities with emissions equal to or less than the thresholds provided in 326 IAC 2-7-1(21):

(1) Ladle tap hole cleaning and repair.

(2) Ladle/tundish refractory application and curing.

(3) Tundish dumping.

(4) Ladle dumping.

(5) Ladle/tundish refractory loading and removal.

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

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

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

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

SECTION D.16 FACILITY OPERATION CONDITIONS

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

COLD MILL – PICKLE LINES 1 AND 2

(x) Both Pickle Lines use enhanced HCl pickling solution and rinse water and are equipped with process tanks.

(1) Pickle Line 1, identified as PL1, constructed in 1988, with a maximum capacity of 250 tons/hr, controlled by a counter flow-packed scrubber and mist eliminators, and exhausting to stack S-17. The Pickle Line 1 scrubber has a design flow rate of 12,000 acf/min and a loading of 0.01 gr/dscf. Each pickle line has an electric static oiler.

Under 40 CFR Part 63, Subpart CCC, Pickle Line 1 is considered an existing continuous pickle line.

(2) Pickle Line 2, consisting of the following units:

(A) One (1) Pickle Line, identified as PL2, constructed in 1997, with a maximum capacity of 250 tons/hr, controlled by a tray scrubber and mist eliminators, and exhausting to stack S-18. The Pickle Line 2 scrubber has a design flow rate of 9,000 acf/min and a loading of 0.01 gr/dscf. Each pickle line has an electric static oiler.

Under 40 CFR Part 63, Subpart CCC, Pickle Line 2 is considered a continuous pickle line.

(B) One (1) acidless metal cleaning line, identified as AMC, approved for construction in 2007, located on Pickle Line 2, with a maximum throughput capacity of 250 tons of steel per hour, using continuous abrasive blasting to remove scale from steel coil, with a maximum blast rate of 272,160 pounds of steel grit/shot per hour, with particulate emissions controlled by a baghouse, and exhausting to stack S-AMC.

(3) The tank farm treats the rinse water from Pickle Line 1 and Pickle Line 2. These tanks also store spent acid, raw acid, regenerated acid, oily wastewater treated waters for reuse, treatment process wastewater, and other process and treated waters.

Under 40 CFR Part 63, Subpart CCC, the tanks that store virgin or regenerated hydrochloric acid are considered new hydrochloric acid storage vessels.

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

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

D.16.1 Pickling PSD BACT [326 IAC 2-2]

Pursuant to 326 IAC 2-2 and PSD SSM 107-16823-00038, issued on November 21, 2003, Pickle Lines 1 and 2 (PL1 and PL2) shall comply with the following BACT requirements:

(a) Each pickling line (PL1 and PL2) shall be controlled by its own scrubber and with an exhaust grain loading of no greater than 0.01 gr/dscf.

(b) Each tank shall operate with a closed vent system, covered by lids, and maintained under negative pressure, except during loading and unloading.

(c) Loading and unloading shall be conducted either through enclosed lines or each point shall be controlled.

(d) The visible emissions from each pickling line scrubber stack shall not exceed 5% opacity, based on a 6-minute average.

(e) Good working practices shall be observed, such as adjusting damper controls and settings on the fume systems.

D.16.2 PSD Minor Limits [326 IAC 2-2]

(a) The PM emissions from emission unit AMC shall be limited to less than 5.7 pounds per hour.

(b) The PM10 emissions from emission unit AMC shall be limited to less than 3.42 pounds per hour.

(c) The Beryllium emissions from emission unit AMC shall be limited to less than 9.1E-5 pounds per hour.

Compliance with these limits will render the requirements of 326 IAC 2-2 (PSD) not applicable.

D.16.3 Particulate Emission Limitations for Manufacturing Processes [326 IAC 6-3-2]

(a) Pursuant to 326 IAC 6-3-2, the allowable particulate emission rate from Pickle Line 1 and Pickle Line 2 (PL1 and PL2) each shall not exceed 61.0 pounds per hour each when operating at process weight rates of 250 tons per hour each.

The pounds per hour limitation was calculated with the following equation:

Interpolation and extrapolation of the data for the process weight rate in excess of 60,000 pounds per hour shall be accomplished by use of the equation:

$E = 55.0 P^{0.11} - 40$ where E = rate of emission in pounds per hour; and P = process weight rate in tons per hour

(b) Pursuant to 326 IAC 6-3-2, the particulate matter (PM) from the acidless metal cleaning line (AMC) shall not exceed 61.0 pounds per hour when operating at a process weight rate of 250 tons per hour. The pound per hour limitation was calculated with the following equation:

Interpolation and extrapolation of the data for the process weight rate in excess of sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$E = 55.0 P^{0.11} - 40$ where E = rate of emission in pounds per hour; and P = process weight rate in tons per hour

D.16.4 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

A Preventive Maintenance Plan (PMP), in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for Pickle Lines 1 and 2 (PL1 and PL2) and the acidless metal cleaning line (AMC) and their control devices.

Compliance Determination Requirements [326 IAC 2-1.1-11]

D.16.5 Scrubber Operation [326 IAC 2-2][40 CFR 63, Subpart CCC]

Pursuant to PSD SSM 107-16823-00038, issued November 21, 2003, 326 IAC 2-2 and 40 CFR Part 63, Subpart CCC, and as revised in this permit modification:

(a) The Pickle Line 1 (PL1) scrubber shall be in operation and control emissions at all times that the Pickle Line 1 is in operation.

(b) The Pickle Line 2 (PL2) scrubber shall be in operation and control emissions at all times that pickling is occurring at Pickle Line 2.

D.16.6 Testing Requirements [326 IAC 2-7-6(1)][40 CFR Part 63, Subpart CCC][326 IAC 20] [326 IAC 2-1.1-11]

(a) Pursuant to 40 CFR Part 63, Subpart CCC, and PSD SSM 107-16823-00038, issued November 21, 2003, and in order to demonstrate compliance with Condition D.16.1(a), the Permittee shall perform the following testing no later than September 30, 2006 for the PL1 scrubber and August 31, 2007 for the PL2 scrubber:

(1) Determine the collection efficiency of each scrubber by simultaneously measuring mass flows of HCl at the inlet and outlet of each scrubber (PL1 scrubber and PL2 scrubber); or

(2) Measure the HCl concentration in gases exiting the process or scrubbers;

Testing shall be completed utilizing methods specified in 40 CFR Part 63, Subpart CCC or other methods as approved by the Commissioner.

(b) Any stack which has multiple processes which exhaust to the same stack shall operate all of the processes simultaneously in accordance with 326 IAC 3-5 (Source Sampling Procedures).

(c) These tests shall be repeated at least once every 2.5 years from the date of a valid compliance demonstration.

(d) Testing shall be conducted in accordance with Section C - Performance Testing.

(e) Within sixty (60) days after achieving maximum production rate, but not later than 180 days after initial startup, and in order to demonstrate compliance with Conditions D.16.2 and D.16.3, the Permittee shall perform PM, PM10, and Beryllium testing for emission unit AMC utilizing methods as approved by the Commissioner. This test shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. PM-10 includes filterable and condensable PM-10. Testing shall be conducted in accordance with Section C- Performance Testing.

D.16.7 Particulate Control [326 IAC 2-2] [326 IAC 6-3-2]

(a) In order to comply with Conditions D.16.2 and D.16.3, the baghouse for particulate control shall be in operation and control emissions from the acidless metal cleaning line (AMC) at all times that the acidless metal cleaning line (AMC) is in operation.

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

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

D.16.8 Scrubber Detection

In the event that a scrubber malfunction has been observed:

Failed units and the associated process will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions). Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances shall be considered a deviation from this permit.

D.16.9 Visible Emissions Notations [326 IAC 2-7-5(3)(A)(iii)][326 IAC 2-7-5(d)]

(a) Visible emission notations of the acidless metal cleaning line (AMC) baghouse stack exhaust shall be performed once per day during normal daylight operations. A trained employee shall record whether emissions are normal or abnormal.

(b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.

(c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.

(d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.

(e) If abnormal emissions are observed, the Permittee shall take reasonable steps in accordance with Section C – Response to Excursions or Exceedances. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances, shall be considered a deviation from this permit.

D.16.10 Baghouses Parametric Monitoring [326 IAC 2-7-5(3)(A)(iii)][326 IAC 2-7-5(d)]

The Permittee shall record the pressure drop across the baghouse used in conjunction with the acidless metal cleaning line (AMC) at least once per day when the acidless metal cleaning line (AMC) is in operation. When for any one reading, the pressure drop across the baghouse is outside the range of 3 to 8 inches of water or a range established during the latest stack test, the Permittee shall take reasonable steps in accordance with Section C - Response to Excursions or Exceedances. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take reasonable response steps in accordance with Section C - Response to Excursions or Exceedances, shall be considered a deviation from this permit.

The instrument used for determining the pressure shall comply with Section C - Instrument Specifications, of this permit, shall be subject to approval by IDEM, OAQ, and shall be calibrated at least once annually.

D.16.11 Broken or Failed Bag Detection

(a) For a single compartment baghouse controlling emissions from a process operated continuously, a failed unit and the associated process shall be shut down immediately until the failed unit has been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).

(b) For a single compartment baghouse controlling emissions from a batch process, the feed to the process shall be shut down immediately until the failed unit has been repaired or replaced. The emissions unit shall be shut down no later than the completion of the processing of the material in the line. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).

Bag failure can be indicated by a significant drop in the baghouse pressure reading with abnormal visible emissions, by an opacity violation, or by other means such as gas temperature, flow rate, air infiltration, leaks, dust traces or triboflows.

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

D.16.12 Record Keeping Requirements

(a) To document compliance with Condition D.16.9, the Permittee shall maintain a daily record of the visible emission notations at the acidless metal cleaning line (AMC) baghouse stack exhaust. The Permittee shall include in its daily record when a visible emission notation is not taken and the reason for the lack of visible emission notation, (e.g., the process did not operate that day).

(b) To document compliance with Condition D.16.10, the Permittee shall maintain a daily record of the pressure drop across the baghouse controlling emission unit. The Permittee shall include in its daily record when a pressure drop reading is not taken and the reason for the lack of a pressure drop reading (e.g., the process did not operate that day).

(c) In order to demonstrate compliance with Conditions D.16.5(b) and D.16.7(a), the Permittee shall maintain a daily record of when the acidless metal cleaning (AMC) is in operation and no pickling is occurring at Pickle Line 2.

(d) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

National Emissions Standards for Hazardous Air Pollutants (NESHAP) Requirements: HCl Process Facilities and Hydrochloric Acid Regeneration Plants

D.16.13 General Provisions Relating to NESHAP [326 IAC 20-1] [40 CFR Part 63, Subpart A]

Pursuant to 40 CFR 63.1155, the Permittee shall comply with the provisions of 40 CFR Part 63, Subpart A – General Provisions, which are incorporated by reference as 326 IAC 20-1-1, for the Pickle Line 1, identified as PL1, Pickle Line 2, identified as PL2, and the tanks in the tank farm that store virgin or regenerated hydrochloric acid from Pickle Line 1 and Pickle Line 2 as specified in Appendix A of 40 CFR Part 63, Subpart CCC in accordance with schedule in 40 CFR Part 63, Subpart CCC.

D.16.14 National Emissions Standards for Hazardous Air Pollutants for Steel Pickling-HCl Process Facilities and Hydrochloric Acid Regeneration Plants [40 CFR Part 63, Subpart CCC]

Pursuant to 40 CFR Part 63, Subpart CCC, Pickle Line 1, identified as PL1, Pickle Line 2, identified as PL2, and the tanks in the tank farm that store virgin or regenerated hydrochloric acid tank farm from Pickle Line 1 and Pickle Line 2 shall comply with the following provisions:

Subpart CCC—National Emission Standards for Hazardous Air Pollutants for Steel Pickling—HCl Process Facilities and Hydrochloric Acid Regeneration Plants

§ 63.1155 Applicability.

(a) The provisions of this subpart apply to the following facilities and plants that are major sources for hazardous air pollutants (HAP) or are parts of facilities that are major sources for HAP:

(1) All new and existing steel pickling facilities that pickle carbon steel using hydrochloric acid solution that contains 6 percent or more by weight HCl and is at a temperature of 100 °F or higher; and

(3) The provisions of this subpart do not apply to facilities that pickle carbon steel without using hydrochloric acid, to facilities that pickle only specialty steel, or to acid regeneration plants that regenerate only acids other than hydrochloric acid.

(b) For the purposes of implementing this subpart, the affected sources at a facility or plant subject to this subpart are as follows: Continuous and batch pickling lines, hydrochloric acid regeneration plants, and hydrochloric acid storage vessels.

(c) Table 1 to this subpart specifies the provisions of this part 63, subpart A that apply and those that do not apply to owners and operators of steel pickling facilities and hydrochloric acid regeneration plants subject to this subpart.

§ 63.1156 Definitions.

Terms used in this subpart are defined in the Clean Air Act, in subpart A of this part, or in this section as follows:

Batch pickling line means the collection of equipment and tanks configured for pickling metal in any form but usually in discrete shapes where the material is lowered in batches into a bath of acid solution, allowed to remain until the scale is dissolved, then removed from the solution, drained, and rinsed by spraying or immersion in one or more rinse tanks to remove residual acid.

Carbon steel means steel that contains approximately 2 percent or less carbon, 1.65 percent or less manganese, 0.6 percent or less silicon, and 0.6 percent or less copper.

Closed-vent system means a system that is not open to the atmosphere and that is composed of piping, ductwork, connections, and, if necessary, flow-inducing devices that transport emissions from a process unit or piece of equipment (e.g., pumps, pressure relief devices, sampling connections, open-ended valves or lines, connectors, and instrumentation systems) back into a closed system or into any device that is capable of reducing or collecting emissions.

Continuous pickling line means the collection of equipment and tanks configured for pickling metal strip, rod, wire, tube, or pipe that is passed through an acid solution in a continuous or nearly continuous manner and rinsed in another tank or series of tanks to remove residual acid. This definition includes continuous spray towers.

Hydrochloric acid regeneration plant means the collection of equipment and processes configured to reconstitute fresh hydrochloric acid pickling solution from spent pickle liquor using a thermal treatment process.

Hydrochloric acid regeneration plant production mode means operation under conditions that result in production of usable regenerated acid or iron oxide.

Hydrochloric acid storage vessel means a stationary vessel used for the bulk containment of virgin or regenerated hydrochloric acid.

Responsible maintenance official means a person designated by the owner or operator as having the knowledge and the authority to sign records and reports required under this rule.

Specialty steel means a category of steel that includes silicon electrical, alloy, tool, and stainless steels.

Spray tower means an enclosed vertical tower in which acid pickling solution is sprayed onto moving steel strip in multiple vertical passes.

Steel pickling means the chemical removal of iron oxide mill scale that is formed on steel surfaces during hot rolling or hot forming of semi-finished steel products through contact with an aqueous solution of acid where such contact occurs prior to shaping or coating of the finished steel product. This definition does not include removal of light rust or scale from finished steel products or activation of the metal surface prior to plating or coating.

Steel pickling facility means any facility that operates one or more batch or continuous steel pickling lines.

§ 63.1157 Emission standards for existing sources.

(a) *Pickling lines.* No owner or operator of an existing affected continuous or batch pickling line at a steel pickling facility shall cause or allow to be discharged into the atmosphere from the affected pickling line:

(1) Any gases that contain HCl in a concentration in excess of 18 parts per million by volume (ppmv); or

(2) HCl at a mass emission rate that corresponds to a collection efficiency of less than 97 percent.

§ 63.1158 Emission standards for new or reconstructed sources.

(a) *Pickling lines*—(1) *Continuous pickling lines.* No owner or operator of a new or reconstructed affected continuous pickling line at a steel pickling facility shall cause or allow to be discharged into the atmosphere from the affected pickling line:

(i) Any gases that contain HCl in a concentration in excess of 6 ppmv; or

(ii) HCl at a mass emission rate that corresponds to a collection efficiency of less than 99 percent.

§ 63.1159 Operational and equipment standards for existing, new, or reconstructed sources.

(b) *Hydrochloric acid storage vessels.* The owner or operator of an affected vessel shall provide and operate, except during loading and unloading of acid, a closed-vent system for each vessel. Loading and unloading shall be conducted either through enclosed lines or each point where the acid is exposed to the atmosphere shall be equipped with a local fume capture system, ventilated through an air pollution control device.

§ 63.1160 Compliance dates and maintenance requirements.

(a) *Compliance dates.* (1) The owner or operator of an affected existing steel pickling facility and/or hydrochloric acid regeneration plant subject to this subpart shall achieve initial compliance with the requirements of this subpart no later than June 22, 2001.

(2) The owner or operator of a new or reconstructed steel pickling facility and/or hydrochloric acid regeneration plant subject to this subpart that commences construction or reconstruction after September 18, 1997, shall achieve compliance with the requirements of this subpart immediately upon startup of operations or by June 22, 1999, whichever is later.

(b) *Maintenance requirements.* (1) The owner or operator of an affected source shall comply with the operation and maintenance requirements prescribed under §63.6(e) of subpart A of this part.

(2) In addition to the requirements specified in paragraph (b)(1) of this section, the owner or operator shall prepare an operation and maintenance plan for each emission control device to be implemented no later than the compliance date. The plan shall be incorporated by reference into the source's title V permit. All such plans must be consistent with good maintenance practices and, for a scrubber emission control device, must at a minimum:

(i) Require monitoring and recording the pressure drop across the scrubber once per shift while the scrubber is operating in order to identify changes that may indicate a need for maintenance;

(ii) Require the manufacturer's recommended maintenance at the recommended intervals on fresh solvent pumps, recirculating pumps, discharge pumps, and other liquid pumps, in addition to exhaust system and scrubber fans and motors associated with those pumps and fans;

(iii) Require cleaning of the scrubber internals and mist eliminators at intervals sufficient to prevent buildup of solids or other fouling;

(iv) Require an inspection of each scrubber at intervals of no less than 3 months with:

(A) Cleaning or replacement of any plugged spray nozzles or other liquid delivery devices;

(B) Repair or replacement of missing, misaligned, or damaged baffles, trays, or other internal components;

(C) Repair or replacement of droplet eliminator elements as needed;

(D) Repair or replacement of heat exchanger elements used to control the temperature of fluids entering or leaving the scrubber; and

(E) Adjustment of damper settings for consistency with the required air flow.

(v) If the scrubber is not equipped with a viewport or access hatch allowing visual inspection, alternate means of inspection approved by the Administrator may be used.

(vi) The owner or operator shall initiate procedures for corrective action within 1 working day of detection of an operating problem and complete all corrective actions as soon as practicable. Procedures to be initiated are the applicable actions that are specified in the maintenance plan. Failure to initiate or provide appropriate repair, replacement, or other corrective action is a violation of the maintenance requirement of this subpart.

(vii) The owner or operator shall maintain a record of each inspection, including each item identified in paragraph (b)(2)(iv) of this section, that is signed by the responsible maintenance official and that shows the date of each inspection, the problem identified, a description of the repair, replacement, or other corrective action taken, and the date of the repair, replacement, or other corrective action taken.

§ 63.1161 Performance testing and test methods.

(a) *Demonstration of compliance.* The owner or operator shall conduct an initial performance test for each process or emission control device to determine and demonstrate compliance with the applicable emission limitation according to the requirements in §63.7 of subpart A of this part and in this section.

(1) Following approval of the site-specific test plan, the owner or operator shall conduct a performance test for each process or control device to either measure simultaneously the mass flows of HCl at the inlet and the outlet of the control device (to determine compliance with the applicable collection efficiency standard) or measure the concentration of HCl (and Cl_2 for hydrochloric acid regeneration plants) in gases exiting the process or the emission control device (to determine compliance with the applicable emission concentration standard).

(2) Compliance with the applicable concentration standard or collection efficiency standard shall be determined by the average of three consecutive runs or by the average of any three of four consecutive runs. Each run shall be conducted under conditions representative of normal process operations.

(3) Compliance is achieved if either the average collection efficiency as determined by the HCl mass flows at the control device inlet and outlet is greater than or equal to the applicable collection efficiency standard, or the average measured concentration of HCl or Cl_2 exiting the process or the emission control device is less than or equal to the applicable emission concentration standard.

(b) *Establishment of scrubber operating parameters.* During the performance test for each emission control device, the owner or operator using a wet scrubber to achieve compliance shall establish site-specific operating parameter values for the minimum scrubber makeup water flow rate and, for scrubbers that operate with recirculation, the minimum recirculation water flow rate. During the emission test, each operating parameter must be monitored continuously and recorded with sufficient frequency to establish a representative average value for that parameter, but no less frequently than once every 15 minutes. The owner or operator shall determine the operating parameter monitoring values as the averages of the values recorded during any of the runs for which results are used to establish the emission concentration or collection efficiency per paragraph (a)(2) of this section. An owner or operator may conduct multiple performance tests to establish alternative compliant operating parameter values. Also, an owner or operator may reestablish compliant operating parameter values as part of any performance test that is conducted subsequent to the initial test or tests.

(d) *Test methods.* (1) The following test methods in appendix A of 40 CFR part 60 shall be used to determine compliance under §63.1157(a), §63.1157(b), §63.1158(a), and §63.1158(b) of this subpart:

(i) Method 1, to determine the number and location of sampling points, with the exception that no traverse point shall be within one inch of the stack or duct wall;

(ii) Method 2, to determine gas velocity and volumetric flow rate;

(iii) Method 3, to determine the molecular weight of the stack gas;

(iv) Method 4, to determine the moisture content of the stack gas; and

(v) Method 26A, "Determination of Hydrogen Halide and Halogen Emissions from Stationary Sources—Isokinetic Method," to determine the HCl mass flows at the inlet and outlet of a control device or the concentration of HCl discharged to the atmosphere, and also to determine the concentration of Cl_2 discharged to the atmosphere from acid regeneration plants. If compliance with a collection efficiency standard is being demonstrated, inlet and outlet measurements shall be performed simultaneously. The minimum sampling time for each run shall be 60 minutes and the minimum sample volume 0.85 dry standard cubic meters (30 dry standard cubic feet). The concentrations of HCl and Cl_2 shall be calculated for each run as follows:

C_{HCl}(ppmv) = 0.659 C_{HCl}(mg/dscm),

and C_{C12}(ppmv) = 0.339 C_{C12}(mg/dscm),

where C(ppmv) is concentration in ppmv and C(mg/dscm) is concentration in milligrams per dry standard cubic meter as calculated by the procedure given in Method 26A.

(2) The owner or operator may use equivalent alternative measurement methods approved by the Administrator.

§ 63.1162 Monitoring requirements.

(a) The owner or operator of a new, reconstructed, or existing steel pickling facility or acid regeneration plant subject to this subpart shall:

(1) Conduct performance tests to measure the HCl mass flows at the control device inlet and outlet or the concentration of HCl exiting the control device according to the procedures described in §63.1161 of this subpart. Performance tests shall be conducted either annually or according to an alternative schedule that is approved by the applicable permitting authority, but no less frequently than every 2 1/2 years or twice per title V permit term. If any performance test shows that the HCl emission limitation is being exceeded, then the owner or operator is in violation of the emission limit.

(2) In addition to conducting performance tests, if a wet scrubber is used as the emission control device, install, operate, and maintain systems for the measurement and recording of the scrubber makeup water flow rate and, if required, recirculation water flow rate. These flow rates must be monitored continuously and recorded at least once per shift while the scrubber is operating. Operation of the wet scrubber with excursions of scrubber makeup water flow rate and recirculation water flow rate less than the minimum values established during the performance test or tests will require initiation of corrective action as specified by the maintenance requirements in §63.1160(b)(2) of this subpart.

(3) If an emission control device other than a wet scrubber is used, install, operate, and maintain systems for the measurement and recording of the appropriate operating parameters.

(4) Failure to record each of the operating parameters listed in paragraph (a)(2) of this section is a violation of the monitoring requirements of this subpart.

(5) Each monitoring device shall be certified by the manufacturer to be accurate to within 5 percent and shall be calibrated in accordance with the manufacturer's instructions but not less frequently than once per year.

(6) The owner or operator may develop and implement alternative monitoring requirements subject to approval by the Administrator.

(c) The owner or operator of an affected hydrochloric acid storage vessel shall inspect each vessel semiannually to determine that the closed-vent system and either the air pollution control device or the enclosed loading and unloading line, whichever is applicable, are installed and operating when required.

§ 63.1163 Notification requirements.

(a) *Initial notifications.* As required by §63.9(b) of subpart A of this part, the owner or operator shall submit the following written notifications to the Administrator:

(2) As required by §63.9(b)(2) of subpart A of this part, the owner or operator of an affected source that has an initial startup before June 22, 1999, shall notify the Administrator that the source is subject to the requirements of the standard. The notification shall be submitted not later than October 20, 1999 (or within 120 calendar days after the source becomes subject to this standard), and shall contain the information specified in §§63.9(b)(2)(i) through 63.9(b)(2)(v) of subpart A of this part.

(3) As required by §63.9(b)(3) of subpart A of this part, the owner or operator of a new or reconstructed affected source, or a source that has been reconstructed such that it is an affected source, that has an initial startup after the effective date and for which an application for approval of construction or reconstruction is not required under §63.5(d) of subpart A of this part, shall notify the Administrator in writing that the source is subject to the standards no later than 120 days after initial startup. The notification shall contain the information specified in §§63.9(b)(2)(i) through 63.9(b)(2)(v) of subpart A of this part, delivered or postmarked with the notification required in §63.9(b)(5) of subpart A of this part.

(4) As required by §63.9(b)(4) of subpart A of this part, the owner or operator of a new or reconstructed major affected source that has an initial startup after June 22, 1999, and for which an application for approval of construction or reconstruction is required under §63.5(d) of subpart A of this part shall provide the information specified in §§63.9(b)(4)(i) through 63.9(b)(4)(v) of subpart A of this part.

(5) As required by §63.9(b)(5) of subpart A of this part, the owner or operator who, after June 22, 1999, intends to construct a new affected source or reconstruct an affected source subject to this standard, or reconstruct a source such that it becomes an affected source subject to this standard, shall notify the Administrator, in writing, of the intended construction or reconstruction.

(b) *Request for extension of compliance.* As required by §63.9(c) of subpart A of this part, if the owner or operator of an affected source cannot comply with this standard by the applicable compliance date for that source, or if the owner or operator has installed BACT or technology to meet LAER consistent with §63.6(i)(5) of subpart A of this part, he/she may submit to the Administrator (or the State with an approved permit program) a request for an extension of compliance as specified in §§63.6(i)(4) through 63.6(i)(6) of subpart A of this part.

(c) *Notification that source is subject to special compliance requirements.* As required by §63.9(d) of subpart A of this part, an owner or operator of a new source that is subject to special compliance requirements as specified in §§63.6(b)(3) and 63.6(b)(4) of subpart A of this part shall notify the Administrator of his/her compliance obligations not later than the notification dates established in §63.9(b) of subpart A of this part for new sources that are not subject to the special provisions.

(d) *Notification of performance test.* As required by §63.9(e) of subpart A of this part, the owner or operator of an affected source shall notify the Administrator in writing of his or her intention to conduct a performance test at least 60 calendar days before the performance test is scheduled to begin, to allow the Administrator to review and approve the site-specific test plan required under

§63.7(c) of subpart A of this part and, if requested by the Administrator, to have an observer present during the test.

(e) *Notification of compliance status.* The owner or operator of an affected source shall submit a notification of compliance status as required by §63.9(h) of subpart A of this part when the source becomes subject to this standard.

§ 63.1164 Reporting requirements.

(a) *Reporting results of performance tests.* As required by §63.10(d)(2) of subpart A of this part, the owner or operator of an affected source shall report the results of any performance test as part of the notification of compliance status required in §63.1163 of this subpart.

(b) *Progress reports.* The owner or operator of an affected source who is required to submit progress reports under §63.6(i) of subpart A of this part shall submit such reports to the Administrator (or the State with an approved permit program) by the dates specified in the written extension of compliance.

(c) *Periodic startup, shutdown, and malfunction reports.* Section 63.6(e) of subpart A of this part requires the owner or operator of an affected source to operate and maintain each affected emission source, including associated air pollution control equipment, in a manner consistent with good air pollution control practices for minimizing emissions at least to the level required by the standard at all times, including during any period of startup, shutdown, or malfunction. Malfunctions must be corrected as soon as practicable after their occurrence in accordance with the startup, shutdown, and malfunction plan.

(1) *Plan.* As required by §63.6(e)(3) of subpart A of this part, the owner or operator shall develop and implement a written startup, shutdown, and malfunction plan that describes, in detail, procedures for operating and maintaining the source during periods of startup, shutdown, or malfunction, and a program of corrective action for malfunctioning process and air pollution control equipment used to comply with the relevant standard.

(2) *Reports.* As required by §63.10(d)(5)(i) of subpart A of this part, if actions taken by an owner or operator during a startup, shutdown, or malfunction of an affected source (including actions taken to correct a malfunction) are consistent with the procedures specified in the startup, shutdown, and malfunction plan, the owner or operator shall state such information in a semiannual report. The report, to be certified by the owner or operator or other responsible official, shall be submitted semiannually and delivered or postmarked by the 30th day following the end of each calendar half; and

(3) *Immediate Reports.* Any time an action taken by an owner or operator during a startup, shutdown, or malfunction (including actions taken to correct a malfunction) is not consistent with the procedures in the startup, shutdown, and malfunction plan, the owner or operator shall comply with all requirements of §63.10(d)(5)(ii) of subpart A of this part.

§ 63.1165 Recordkeeping requirements.

(a) *General recordkeeping requirements.* As required by §63.10(b)(2) of subpart A of this part, the owner or operator shall maintain records for 5 years from the date of each record of:

(1) The occurrence and duration of each startup, shutdown, or malfunction of operation (i.e., process equipment);

(2) The occurrence and duration of each malfunction of the air pollution control equipment;

(3) All maintenance performed on the air pollution control equipment;

(4) Actions taken during periods of startup, shutdown, and malfunction and the dates of such actions (including corrective actions to restore malfunctioning process and air pollution control equipment to its normal or usual manner of operation) when these actions are different from the procedures specified in the startup, shutdown, and malfunction plan;

(5) All information necessary to demonstrate conformance with the startup, shutdown, and malfunction plan when all actions taken during periods of startup, shutdown, and malfunction (including corrective actions to restore malfunctioning process and air pollution control equipment to its normal or usual manner of operation) are consistent with the procedures specified in such plan. This information can be recorded in a checklist or similar form (see §63.10(b)(2)(v) of subpart A of this part);

(6) All required measurements needed to demonstrate compliance with the standard and to support data that the source is required to report, including, but not limited to, performance test measurements (including initial and any subsequent performance tests) and measurements as may be necessary to determine the conditions of the initial test or subsequent tests;

(7) All results of initial or subsequent performance tests;

(8) If the owner or operator has been granted a waiver from recordkeeping or reporting requirements under §63.10(f) of subpart A of this part, any information demonstrating whether a source is meeting the requirements for a waiver of recordkeeping or reporting requirements;

(9) If the owner or operator has been granted a waiver from the initial performance test under §63.7(h) of subpart A of this part, a copy of the full request and the Administrator's approval or disapproval;

(10) All documentation supporting initial notifications and notifications of compliance status required by §63.9 of subpart A of this part; and

(11) Records of any applicability determination, including supporting analyses.

(b) *Subpart CCC records.* (1) In addition to the general records required by paragraph (a) of this section, the owner or operator shall maintain records for 5 years from the date of each record of:

(i) Scrubber makeup water flow rate and recirculation water flow rate if a wet scrubber is used;

(ii) Calibration and manufacturer certification that monitoring devices are accurate to within 5 percent; and

(iii) Each maintenance inspection and repair, replacement, or other corrective action.

(3) The owner or operator shall keep the written operation and maintenance plan on record after it is developed to be made available for inspection, upon request, by the Administrator for the life of the affected source or until the source is no longer subject to the provisions of this subpart. In addition, if the operation and maintenance plan is revised, the owner or operator shall keep previous (i.e., superseded) versions of the plan on record to be made available for inspection by the Administrator for a period of 5 years after each revision to the plan.

(c) *Recent records.* General records and subpart CCC records for the most recent 2 years of operation must be maintained on site. Records for the previous 3 years may be maintained off site.

Table 1 to Subpart CCC of Part 63—Applicability of General Provisions (40 CFR Part 63, Subpart A) to Subpart CCC

Reference	Applies to Subpart CCC	Explanation
63.1-63.5.....	Yes.	
63.6 (a)-(g).....	Yes.	
63.6 (h).....	No.....	Subpart CCC does not contain an opacity or visible emission standard.

63.6 (i)-(j)	Yes.	
63.7-63.9	Yes.	
63.10 (a)-(c)	Yes.	
63.10 (d) (1)-(2)	Yes.	
63.10 (d)(3)	No	Subpart CCC does not contain an opacity or visible emission standard.
63.10 (d) (4)-(5)	Yes.	
63.10 (e)-(f)	Yes.	
63.11	No	Subpart CCC does not require the use of flares.
63.12-63.15	Yes	

D.16.15 One Time Deadlines Relating to National Emission Standards for Hazardous Air Pollutants for Steel Pickling, HCl Process Facilities, and Hydrochloric Acid Regeneration Plants [40 CFR Part 63, Subpart CCC]

(a) The Permittee must conduct the initial performance tests within 60 days after achieving maximum production rate, but no later than 180 days after start-up.

(b) The Permittee must submit a notification of compliance status report for pickle line PL1 no later than October 20, 1999.

(c) The Permittee must submit a notification of compliance status report for pickle line PL2 no later than 120 days after initial startup.

Indiana Department of Environmental Management
Office of Air Quality

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

Source Background and Description

Source Name:	Nucor Steel
Source Location:	4357 South Nucor Road, Crawfordsville, Indiana 47933
County:	Montgomery
SIC Code:	3312
Significant Source Modification No.:	107-24187-00038
Significant Permit Modification No.:	107-24284-00038
Permit Reviewer:	ERG/ST

On May 3, 2007, the Office of Air Quality (OAQ) had a notice published in the Journal Review, Crawfordsville, Indiana, stating that Nucor Steel had applied for a Significant Source Modification (SSM) and a Significant Permit Modification (SPM) to a Part 70 Operating Permit to construct and operate an acidless metal cleaning line with control. 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.

On June 2, Nucor Steel submitted comments on the proposed Significant Source Modification and Significant Permit Modification to their Part 70 Operating Permit. The summary of the comments is as follows. New language is shown in **bold** while deleted language is shown in ~~strikeout~~.

Comment 1: Nucor is involved in an ongoing appeal before the Office of Environmental Adjudication (OEA) of several conditions of its Part 70 Operating Permit. Although the appealed conditions are unrelated to the conditions added to the Part 70 Permit as a result of this modification, the appealed conditions appear in SSM 107-24187-00038 and SPM 107-24284-00038. Nucor wants to ensure that it preserves its right to appeal the contested conditions and, as a result, incorporates by reference its Petition for Administrative Review of the Part 70 Operating Permit TI07-7172-00038 as comments to SSM 107-24187-00038 and SPM 107-24284-00038. The Petition for Administrative review is before the OEA under cause number 03-A-J-3253.

IDEM Response to Comment 1: This comment is unrelated to the changes made to the source in this SSM/SPM to Nucor's Part 70 Operating Permit. However, the comment will be included in the public record as it was submitted during the Public Notice period. No changes were made as a result of this comment.

Comment 2: Conditions D.16.2(a) and (b) impose PM and PM10 emissions limits upon the acidless metal cleaning line (AMC) in units of pounds of particulate matter per hour. The AMC, however, is controlled by a baghouse. As a result of the manner in which a baghouse operates, particulate emissions are dependent upon baghouse flow rate and emissions will not track production in a manner that makes a pound per hour emission rate relevant. Instead, relevant units to monitor a baghouse's operation are grains of particulate per dry standard cubit foot (gr/dscf). Nucor proposes that the 5.7 pounds per hour

and 3.42 pounds per hour emission limits in (a) and (b) be replaced with a grain loading emission limit of 0.0018 gr/dscf in each condition. This is the limit that Nucor presented in the permit application.

IDEM Response to Comment 2: The limits for PM, PM10 and Beryllium, as written in Condition D.16.2, are necessary to ensure PM, PM10 and Beryllium emissions are less than the PSD significant levels for this modification. Compliance with these limits will be demonstrated by stack testing of the AMC when the unit is operating at full capacity. As documented in Appendix A of the TSD, at the maximum design flow rate and grain loading for the baghouse, PM/PM10 emissions are estimated to remain below the emission limits, but IDEM requires testing to demonstrate these limits are being met. No changes were made as a result of this comment.

Comment 3: Nucor proposes that IDEM revise Condition D.16.5(b) to clarify that Nucor must only operate the pickle line 2 scrubber when pickling is occurring. The AMC may be used in lieu of pickling. Thus, Pickle Line 2 may be in "operation" when no pickling is occurring. When no pickling is occurring, there is no reason for the scrubber to be operating. As a result, Nucor proposes that IDEM, OAQ revise subpart (b) to read "The Pickle Line 2 (PL2) scrubber shall be in operation and control emissions at all times that pickling is occurring at Pickle Line 2."

IDEM Response to Comment 3: The scrubber controls emissions from the acid pickling operation (PL2) on Pickle Line 2 and the baghouse controls particulate emissions from the acidless metal cleaning (AMC) on Pickle Line 2. As the pickling operation (PL2) and the acidless metal cleaning operation (AMC) can operate independently of each other, there is no need to operate the scrubber when only the acidless metal cleaning facilities are in operation. In order to clarify the requirements for operation of the control devices for the acid pickling operation (PL2) and the acidless metal cleaning (AMC), the permit has been changed as follows:

D.16.5 Scrubber Operation [326 IAC 2-2][40 CFR 63, Subpart CCC]

Pursuant to PSD SSM 107-16823-00038, issued November 21, 2003, 326 IAC 2-2 and 40 CFR Part 63, Subpart CCC**, and as revised in this permit modification**:

(a) The Pickle Line 1 (PL1) scrubber shall be in operation and control emissions at all times that the Pickle Line 1 is in operation.

(b) The Pickle Line 2 (PL2) scrubber shall be in operation and control emissions at all times that **pickling is occurring at** ~~the~~ Pickle Line 2 ~~is in operation~~.

D.16.12 Record Keeping Requirements

. . .

(c) In order to demonstrate compliance with Conditions D.16.5(b) and D.16.7(a), the Permittee shall maintain a daily record of when the acidless metal cleaning (AMC) is in operation and no pickling is occurring at Pickle Line 2.

~~(c)~~**(d)** All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

Comment 4: Nucor objects to the requirement in Condition D.16.6(e) that it perform initial performance testing on the AMC within sixty days of startup. The AMC is a new and novel way to clean steel. Consequently, Nucor will need time to determine the AMC's optimum performance level. The performance testing should not be required until Nucor has the opportunity to operate the AMC in such a way that saleable steel coil results. Commonly, performance testing is only required after the maximum production rate is achieved. See 40 C.F.R. § 60.8(a) (requiring performance testing for facilities subject to federal New Source Performance Standards within 60 days after achieving maximum production rate, but not later than 180 days after initial startup). Because Nucor should be allowed to determine the AMC's operating parameters resulting in saleable products, Nucor proposes that IDEM, OAQ revise the first sentence of subpart (e) to read: "Within sixty (60) days of producing a prime saleable product utilizing

emission unit AMC, and in order to demonstrate compliance with Conditions D.16.2 and D.16.3, the Permittee shall perform PM, PM10, and Beryllium testing for emission unit AMC utilizing methods as approved by the Commissioner."

IDEM Response to Comment 4: IDEM realizes that it may take longer than sixty days from startup for the acidless metal cleaning line (AMC) to reach full operating capacity. IDEM also agrees that testing of the acidless metal cleaning line (AMC) should be performed when the facility is operating at maximum capacity. Testing is necessary to demonstrate compliance with Conditions D.16.2 and D.16.3. Therefore, the permit has been changed as follows to allow for additional time to achieve the maximum production rate:

D.16.6 Testing Requirements [326 IAC 2-7-6(1)] [40 CFR Part 63, Subpart CCC] [326 IAC 20] [326 IAC 2-1.1-11]

. . .

(e) Within sixty (60) days ~~of startup of emission unit AMC~~ **after achieving maximum production rate, but not later than 180 days after initial startup**, and in order to demonstrate compliance with Conditions D.16.2 and D.16.3, the Permittee shall perform PM, PM10, and Beryllium testing for emission unit AMC utilizing methods as approved by the Commissioner. This test shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. PM-10 includes filterable and condensable PM-10. Testing shall be conducted in accordance with Section C- Performance Testing.

Comment 5: The final full paragraph of the description of proposed modification section of the Technical Support Document should be revised to reflect operations at the source. The AMC is a standalone unit that may be operated independently or in conjunction with the pickling operation. In other words, installation of the AMC provides Nucor the choice to operate Pickle Line 2 utilizing pickling only, the AMC only, or pickling and the AMC in series. Thus, Nucor proposes that IDEM, OAQ replace the second sentence in this paragraph with: "The emission unit (AMC) will be installed in series with Pickle Line 2, and may operate in lieu of the pickling process or in conjunction with pickling process."

IDEM Response to Comment 5: In this comment, Nucor has provided further clarification on the operations of the Pickle Line 2, which consists of an acid pickling facility (PL2) and an acidless metal cleaning facility (AMC). No changes have been made to the TSD because the OAQ prefers that the Technical Support Document reflect the permit that was on public notice. Changes to the permit or technical support material that occur after the public notice are documented in this Addendum to the Technical Support Document. This accomplishes the desired result of ensuring that these types of concerns are documented and part of the record regarding this permit decision. No changes have been made as a result of this comment.

Indiana Department of Environmental Management
Office of Air Quality

Technical Support Document (TSD) for a Significant Source Modification and a Significant Permit Modification to a Part 70 Operating Permit

Source Description and Location

Source Name:	Nucor Steel
Source Location:	4357 South Nucor Road, Crawfordsville, Indiana 47933
County:	Montgomery
SIC Code:	3312
Operation Permit No.:	107-7172-00038
Operation Permit Issuance Date:	December 29, 2006
Significant Source Modification No.:	107-24187-00038
Significant Permit Modification No.:	107-24284-00038
Permit Reviewer:	ERG/ST

Source Definition

This steel mini-mill consists of a source with on-site contractors:

(a) Nucor Steel, the primary operation, is located at 4357 South Nucor Road, Crawfordsville, Indiana 47933;

(b) Whitesville Mill Service Company, the supporting operation, is located at 4357 South Nucor Road, Crawfordsville, Indiana, 47933;

(c) BOC Gases, the supporting operation, is located at 4357 South Nucor Road, Crawfordsville, Indiana, 47933; and

(d) Heritage Environmental Services, the supporting operation, is located at 4357 South Nucor Road, Crawfordsville, Indiana, 47933.

Existing Approvals

The source was issued Part 70 Operating Permit No. T107-7172-00038 on December 29, 2006. The source has since received the following approvals:

(a) Administrative Amendment 107-24009-00038, issued on January 26, 2007; and

(b) First Significant Permit Modification 107-24022-00038, issued April 20, 2007.

County Attainment Status

The source is located in Montgomery County.

Pollutant	Status
PM10	Attainment
PM2.5	Attainment
SO_2	Attainment
NO_2	Attainment
8-hour Ozone	Attainment
CO	Attainment
Lead	Attainment

(a) Volatile organic compounds (VOC) and Nitrogen Oxides (NOx) are regulated under the Clean Air Act (CAA) for the purposes of attaining and maintaining the National Ambient Air Quality Standards (NAAQS) for ozone. Therefore, VOC emissions and NOx are considered when evaluating the rule applicability relating to ozone. Montgomery County has been designated as attainment or unclassifiable for ozone. Therefore, VOC emissions and NOx were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2. See the State Rule Applicability – 326 IAC 2-2 section of this document for more information.

(b) Montgomery County has been classified as attainment for PM2.5. U.S. EPA has not yet establied the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 for PM 2.5 emissions. Therefore, until the U.S.EPA adopts specific provisions for PSD review for PM2.5 emissions, it has directed states to regulate PM10 emissions as surrogate for PM2.5 emissions.

(c) Montgomery County has been classified as attainment or unclassifiable for all other criteria pollutants. Therefore, these emissions were reviewed pursuant to the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration (PSD)).

(d) Fugitive Emissions
Since this type of operation is in one of the twenty-eight (28) listed source categories under 326 IAC 2-2 or 326 IAC 2-3, fugitive emissions are counted toward the determination of PSD and Emission Offset applicability.

Source Status

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

Pollutant	Potential to Emit (tons/year)
PM	greater than 100
PM10	greater than 100
SO_2	greater than 100
VOC	less than 100
CO	greater than 100
NO_x	greater than 100

(a) This existing source is a major stationary source, under PSD (326 IAC 2-2), because a regulated pollutant is emitted at a rate of 100 tons per year or more, and it is in one of the twenty-eight (28) listed source categories, as specified in 326 IAC 2-2-1(gg)(1).

(b) These emissions are based upon previous approvals issued to this source.

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

HAPs	Potential to Emit (tons/year)
Single HAP	greater than 10
Total HAPs	greater than 25

This existing source is a major source of HAPs, as defined in 40 CFR 63.41, because HAP emissions are greater than ten (10) tons per year for a single HAP and greater than twenty-five (25) tons per year for a combination of HAPs. Therefore, this source is a major source under Section 112 of the Clean Air Act (CAA).

Actual Emissions

The following table shows the actual emissions from the source. This information reflects the 2003 OAQ emission data.

Pollutant	Actual Emissions (tons/year)
PM	124
PM10	124
PM2.5	93
SO_2	152
VOC	54
CO	642
NO_x	238
Pb	0.40

Description of Proposed Modification

The Office of Air Quality (OAQ) has reviewed a modification application, submitted by Nucor Steel on January 11, 2007, relating to the addition of one (1) acidless pickling facility (continuous abrasive blasting, with a baghouse to control particulate emissions) to their existing Perdue pickle line.

The following is a list of the proposed emission unit to be added in this source modification:

(a) One (1) acidless metal cleaning line, identified as AMC, approved for construction in 2007, located on Pickle Line 2, with a maximum throughput capacity of 250 tons of steel per hour, using continuous abrasive blasting to remove scale from steel coil, with a maximum blast rate of 272,160 pounds of steel grit/shot per hour, with particulate emissions controlled by a baghouse, and exhausting to stack S-AMC. [This emission unit is located in the Cold Mill.]

The Permittee currently processes steel coil in two pickle lines. This emissions unit (AMC) will be installed in series with Pickle Line 2, and will perform an additional cleaning step on the surface of the steel coil processed in that existing line. The addition of emission unit AMC will not increase the maximum throughput capacity of the existing Cold Mill - Pickling facilities. In addition, the addition of this emissions unit does not increase the emissions from any upstream or downstream facilities, because the addition of this emissions unit will not increase the actual throughput of steel through any upstream or downstream facilities. The steel coil throughput rate for the abrasive blasting is the same as the existing two (2) pickling lines.

Enforcement Issues

There are no pending enforcement actions related to this modification.

Stack Summary

Stack ID	Operation	Height (feet)	Diameter (feet)	Flow Rate (acfm)	Temperature (^{0}F)
S-AMC	AMC	75	3	36,600	90

Emission Calculations

See Appendix A (pages 1 through 2) of this document for detailed emission calculations.

Permit Level Determination – Part 70

Pursuant to 326 IAC 2-1.1-1(16), Potential to Emit is defined as "the maximum capacity of a stationary source or emission unit to emit any air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of a source to emit an air pollutant, including air pollution control equipment and restrictions on hours of operation or type or amount of material combusted, stored, or processed shall be treated as part of its design if the limitation is enforceable by the U. S. EPA, IDEM, or the appropriate local air pollution control agency."

The following table is used to determine the appropriate permit level under 326 IAC 2-7-10.5. This table reflects the PTE of the modification before controls. Control equipment is not considered federally enforceable until it has been required in a federally enforceable permit.

Pollutant	Potential To Emit (tons/year)
PM	4,768
PM10	4,101
SO_2	0.0
VOC	0.0
CO	0.0
NO_x	0.0
Single HAP	81.1
Total HAPs	138

HAP emissions are derived from HAP content of the steel being cleaned.

This source modification is subject to 326 IAC 2-7-10.5(f)(4)(A), as the potential to emit of particulate is greater than twenty-five (25) tons per year and the potential to emit before controls exceeds major source thresholds. Additionally, the modification will be incorporated into the pending Part 70 Operating Permit through a Significant Permit Modification issued pursuant to 326 IAC 2-7-12(d) because this permit modification requires a case-by-case determination of an emission limitation.

Permit Level Determination – PSD or Emission Offset

The table below summarizes the potential to emit, reflecting all limits, of the emission units added in this source modification. Any control equipment is considered federally enforceable only after issuance of this Part 70 source modification, and only to the extent that the effect of the control equipment is made practically enforceable in the permit.

	Potential to Emit (tons/year)							
Process/Emission Unit	**PM**	**PM10**	**SO_2**	**NO_X**	**CO**	**VOC**	**Lead**	**Beryllium**
AMC	Less than 25	Less than 15	0.0	0.0	0.0	0.0	2.5E-5	Less than 0.0004
Total for Modification	Less than 25	Less than 15	0.0	0.0	0.0	0.0	2.5E-5	Less than 0.0004
Significant Level or Major Source Threshold	25	15	40	40	100	40	0.6	0.0004

This source is considered a major PSD source. The unrestricted potential to emit of PM and PM10 of the emission unit in this source modification (AMC) is greater than 25 tons per year and 15 tons per year, respectively. The unrestricted potential to emit of beryllium of the emission unit in this source modification (AMC) is greater than 0.0004 tons per year, the significance level of beryllium. Therefore, this source has elected to limit the potential to emit of PM and PM10 of this modification as follows:

(a) The PM emissions from emission unit AMC shall be limited to less than 5.7 pounds per hour. Compliance with this limit will ensure that the emissions increase from this modification is less than twenty-five (25) tons of PM per year and therefore will render the requirements of 326 IAC 2-2 (PSD) not applicable.

(b) The PM10 emissions from emission unit AMC shall be limited to less than 3.42 pounds per hour. Compliance with this limit will ensure that the emissions increase from this modification is less than ten (10) tons of PM10 per year and therefore will render the requirements of 326 IAC 2-2 (PSD) not applicable.

(c) The Beryllium emissions from emission unit AMC shall be limited to less than 9.1E-5 pounds per hour. Compliance with this limit will ensure that the emissions increase from this modification is less than four ten-thousandths (0.0004) tons per year and therefore will render the requirements of 326 IAC 2-2 (PSD) not applicable.

This modification to an existing major stationary source is not major because the emissions increase is limited to less than the PSD significant levels. Therefore, pursuant to 326 IAC 2-2, the PSD requirements do not apply.

Federal Rule Applicability Determination

(a) There are no New Source Performance Standards (NSPS) (326 IAC 12 and 40 CFR Part 60) applicable to this proposed modification.

(b) There are no National Emission Standards for Hazardous Air Pollutants (NESHAPs) (326 IAC 14, 326 IAC 20 and 40 CFR Part 63) applicable to this proposed modification.

(c) The requirements of the National Emission Standards for Hazardous Air Pollutants for Steel Pickling - HCL Process (326 IAC 20 and 40 CFR 63, Subpart CCC) are not included for this modification because the acidless metal cleaning line (AMC) does not use hydrochloric acid.

(d) Pursuant to 40 CFR 64.2, Compliance Assurance Monitoring (CAM) is applicable to new or modified emission units that involve a pollutant-specific emission unit and meet the following criteria:

(1) has a potential to emit before controls equal to or greater than the major source threshold for the pollutant involved;

(2) is subject to an emission limitation or standard for that pollutant; and

(3) uses a control device, as defined in 40 CFR 64.1, to comply with that emission limitation or standard.

The following table is used to identify the applicability of each of the criteria, under 40 CFR 64.1, to each new or modified emission unit involved:

Emission Unit	Control Device Used	Emission Limitation (Y/N)	Uncontrolled PTE (tons/year)	Controlled PTE (tons/year)	Major Source Threshold (tons/year)	CAM Applicable (Y/N)	Large Unit (Y/N)
AMC	Baghouse	Y	4,768	2.47	100	Y	N

Based on this evaluation, the requirements of 40 CFR Part 64, CAM are applicable to emission unit AMC for PM and PM10 upon issuance of the Title V Renewal. The Permittee shall incorporate a CAM plan into their Part 70 permit renewal application.

State Rule Applicability Determination

326 IAC 2-2 (Prevention of Significant Deterioration)

Nucor Steel began operation in 1989. Nucor Steel belongs to one of the twenty-eight (28) listed source categories with a PSD major source threshold of 100 tons per year. From the initial start-up, Nucor Steel was a major source. This modification to a major PSD source does not trigger PSD review because the increase in potential to emit of PM, PM10, PM2.5, SO_2, CO, NOx, and VOC is limited to less than the PSD significant levels. See the discussion above in the Permit Level Determination – PSD or Emission Offset section of this Technical Source Document for a full explanation of the issues and limits for this new equipment.

326 IAC 2-4.1 (New Source Toxics Control)

The emission unit in this modification has the potential to emit greater than ten (10) tons per year of a single HAP and greater than 25 tons per year of a combination of HAPs. However, the Acidless Metal Cleaning Line is not a process line in and of itself. It is part of Pickle Line 2 and does not produce a product by itself. The addition of the equipment is not considered a reconstruction of the existing Pickle Line. Therefore, 326 IAC 2-4.1 does not apply to this modification.

326 IAC 2-6 (Emission Reporting)

This source is subject to 326 IAC 2-6 (Emission Reporting) because it is required to have an operating permit under 326 IAC 2-7, Part 70 program. Pursuant to this rule, the Permittee shall submit an emission statement certified pursuant to the requirements of 326 IAC 2-6. In accordance with the compliance schedule in 326 IAC 2-6-3, an emission statement must be submitted triennially by July 1 beginning in 2005 and every 3 years after.The emission statement shall contain, at a minimum, the information specified in 326 IAC 2-6-4.

326 IAC 5-1 (Opacity Limitations)

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

(a) Opacity shall not exceed an average of forty percent (40%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.

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

326 IAC 9 (CO Emission Rules)

Nucor Steel is subject to this rule because it is a source of CO emissions and commenced operation after March 21, 1972. However, no emission limits are specified for steel mill operations pursuant to this rule.

326 IAC 10 (NO_x Rules)

This rule does not apply to Nucor Steel because it is not located in Clark or Floyd Counties.

326 IAC 11 (Source Specific limitations)

Steel Mill operations are not one of the operations listed in this rule.

State Rule Applicability - Individual Facilities

326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes)

Pursuant to 326 IAC 6-3-2, the particulate matter (PM) from the acidless metal cleaning line (AMC) shall not exceed 61.0 pounds per hour when operating at a process weight rate of 250 tons per hour. The pound per hour limitation was calculated with the following equation:

Interpolation and extrapolation of the data for the process weight rate in excess of sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$E = 55.0\ P^{0.11} - 40$ where E = rate of emission in pounds per hour; and P = process weight rate in tons per hour

The baghouse shall be in operation at all times the acidless metal cleaning line (AMC) is in operation, in order to comply with this limit.

Compliance Determination and Monitoring Requirements

Permits issued under 326 IAC 2-7 are required to ensure that sources can demonstrate compliance with all applicable state and federal rules on a continuous basis. All state and federal rules contain compliance provisions; however, these provisions do not always fulfill the requirement for a continuous demonstration. When this occurs IDEM, OAQ, in conjunction with the source, must develop specific conditions to satisfy 326 IAC 2-7-5. As a result, Compliance Determination Requirements are included in the permit. The Compliance Determination Requirements in Section D of the permit are those conditions that are found directly within state and federal rules and the violation of which serves as grounds for enforcement action.

If the Compliance Determination Requirements are not sufficient to demonstrate continuous compliance, they will be supplemented with Compliance Monitoring Requirements, also in Section D of the permit. Unlike Compliance Determination Requirements, failure to meet Compliance Monitoring conditions would serve as a trigger for corrective actions and not grounds for enforcement action. However, a violation in relation to a compliance monitoring condition will arise through a source=s failure to take the appropriate corrective actions within a specific time period.

The compliance monitoring requirements applicable to this modification are as follows:

(a) Testing is required for emission unit AMC to ensure compliance with the requirements of 326 IAC 2-2 (PSD) and 326 IAC 6-3-2. The testing requirements are as follows:

Emission Unit	Control Device	Timeframe for Testing	Pollutants	Frequency of Testing	Limit or Requirement
AMC	baghouse	within 60 days of startup	PM, PM10, Beryllium	Every five (5) years	PM: < 5.7 lb/hr PM10: < 3.2 lb/hr Be: < 9.1E-5

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

(c) The Permittee shall record the pressure drop across the baghouse used in conjunction with the acidless metal cleaning line (AMC) at least once per day when the acidless metal cleaning line (AMC) is in operation. When for any one reading, the pressure drop across the baghouse is outside the range of 3 to 8 inches of water or a range established during the latest stack test, the Permittee shall take reasonable steps in accordance with Section C - Response to Excursions or Exceedances. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take reasonable response steps in accordance with Section C - Response to Excursions or Exceedances, shall be considered a deviation from this permit. The instrument used for determining the pressure shall comply with Section C - Instrument Specifications, of this permit, shall be subject to approval by IDEM, OAQ, and shall be calibrated at least once annually.

(d) For a single compartment baghouse controlling emissions from a process operated continuously, a failed unit and the associated process shall be shut down immediately until the failed unit has been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions). For a single compartment baghouse controlling emissions from a batch process, the feed to the process shall be shut down immediately until the failed unit has been repaired or replaced. The emissions unit shall be shut down no later than the completion of the processing of the material in the line. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions). Bag failure can be indicated by a significant drop in the baghouse pressure reading with abnormal visible emissions, by an opacity violation, or by other means such as gas temperature, flow rate, air infiltration, leaks, dust traces or triboflows.

These monitoring conditions are necessary because the baghouse controlling emissions from emission unit AMC must operate properly to ensure compliance with 326 IAC 6-3-2, 326 IAC 2-2 (PSD), and 326 IAC 2-7 (Part 70).

Proposed Changes

The changes listed below have been made to Part 70 Operating Permit No. 107-7172-00038. Deleted language appears as ~~strikethroughs~~ and new language appears in **bold**.

1. The description and requirements for the acidless metal cleaning line (AMC) have been added to Section A.3 and D.16 of the permit as follows:

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

The Permittee owns and operates a stationary steel mini-mill.

~~Responsible Official: General Manager~~

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

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

D.16 – COLD MILL – PICKLE LINES 1 AND 2

(x) Both Pickle Lines use enhanced HCl pickling solution and rinse water and are equipped with process tanks.

. . .

(2) **Pickle Line 2, consisting of the following units:**

(A) One (1) Pickle Line, ~~Pickle Line 2,~~ identified as PL2, constructed in 1997, with a maximum capacity of 250 tons/hr, controlled by a tray scrubber and mist eliminators, and exhausting to stack S-18. The Pickle Line 2 scrubber has a design flow rate of 9,000 acf/min and a loading of 0.01 gr/dscf. Each pickle line has an electric static oiler.

Under 40 CFR Part 63, Subpart CCC, Pickle Line 2 is considered a continuous pickle line.

(B) One (1) acidless metal cleaning line, identified as AMC, approved for construction in 2007, located on Pickle Line 2, with a maximum throughput capacity of 250 tons of steel per hour, using continuous abrasive blasting to remove scale from steel coil, with a maximum blast rate of 272,160 pounds of steel grit/shot per hour, with particulate emissions controlled by a baghouse, and exhausting to stack S-AMC.

SECTION D.16 FACILITY OPERATION CONDITIONS

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

COLD MILL – PICKLE LINES 1 AND 2

(x) Both Pickle Lines use enhanced HCl pickling solution and rinse water and are equipped with process tanks.

. . .

(2) **Pickle Line 2, consisting of the following units:**

(A) One (1) Pickle Line, ~~Pickle Line 2,~~ identified as PL2, constructed in 1997, with a maximum capacity of 250 tons/hr, controlled by a tray scrubber and mist eliminators, and exhausting to stack S-18. The Pickle Line 2 scrubber has a design flow rate of 9,000 acf/min and a loading of 0.01 gr/dscf. Each pickle line has an electric static oiler.

Under 40 CFR Part 63, Subpart CCC, Pickle Line 2 is considered a continuous pickle line.

(B) One (1) acidless metal cleaning line, identified as AMC, approved for construction in 2007, located on Pickle Line 2, with a maximum throughput capacity of 250 tons of steel per hour, using continuous

abrasive blasting to remove scale from steel coil, with a maximum blast rate of 272,160 pounds of steel grit/shot per hour, with particulate emissions controlled by a baghouse, and exhausting to stack S-AMC.

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

D.16.2 PSD Minor Limits [326 IAC 2-2]

(a) The PM emissions from emission unit AMC shall be limited to less than 5.7 pounds per hour.

(b) The PM10 emissions from emission unit AMC shall be limited to less than 3.42 pounds per hour.

(c) The Beryllium emissions from emission unit AMC shall be limited to less than 9.1E-5 pounds per hour.

Compliance with these limits will render the requirements of 326 IAC 2-2 (PSD).

~~D.16.2~~ **D.16.3** Particulate Emission Limitations for Manufacturing Processes [326 IAC 6-3-2]

(a) Pursuant to 326 IAC 6-3-2, the allowable particulate emission rate from Pickle Line 1 and Pickle Line 2 (PL1 and PL2) each shall not exceed 61.0 pounds per hour each when operating at process weight rates of 250 tons per hour each.

The pounds per hour limitation was calculated with the following equation:

Interpolation and extrapolation of the data for the process weight rate in excess of 60,000 pounds per hour shall be accomplished by use of the equation:

$E = 55.0 P^{0.11} - 40$ where E = rate of emission in pounds per hour; and
P = process weight rate in tons per hour

(b) Pursuant to 326 IAC 6-3-2, the particulate matter (PM) from the acidless metal cleaning line (AMC) shall not exceed 61.0 pounds per hour when operating at a process weight rate of 250 tons per hour. The pound per hour limitation was calculated with the following equation:

Interpolation and extrapolation of the data for the process weight rate in excess of sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

**$E = 55.0 P^{0.11} - 40$ where E = rate of emission in pounds per hour; and
P = process weight rate in tons per hour**

~~D.16.3~~ **D.16.4** Preventive Maintenance Plan [326 IAC 2-7-5(13)]

A Preventive Maintenance Plan (PMP), in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for Pickle Lines 1 and 2 (PL1 and PL2) and **the acidless metal cleaning line (AMC) and** their control devices.

~~D.16.4~~ **D.16.5** Scrubber Operation [326 IAC 2-2][40 CFR 63, Subpart CCC]

~~D.16.5~~ **D.16.6** Testing Requirements [326 IAC 2-7-6(1)] [40 CFR Part 63, Subpart CCC] [326 IAC 20] **[326 IAC 2-1.1-11]**

. . .

(e) Within sixty (60) days of startup of emission unit AMC, and in order to demonstrate compliance with Conditions D.16.2 and D.16.3, the Permittee shall perform PM,

PM10, and Beryllium testing for emission unit AMC utilizing methods as approved by the Commissioner. This test shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. PM-10 includes filterable and condensable PM-10. Testing shall be conducted in accordance with Section C- Performance Testing.

D.16.7 Particulate Control [326 IAC 2-2] [326 IAC 6-3-2]

(a) **In order to comply with conditions D.16.2 and D.16.3, the baghouse for particulate control shall be in operation and control emissions from the acidless metal cleaning line (AMC) at all times that the acidless metal cleaning line (AMC) is in operation.**

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

~~D.16.6~~**D.16.8** Scrubber Detection

D.16.9 Visible Emissions Notations [326 IAC 2-7-5(3)(A)(iii)][326 IAC 2-7-5(d)]

(a) **Visible emission notations of the acidless metal cleaning line (AMC) baghouse stack exhaust shall be performed once per day during normal daylight operations. A trained employee shall record whether emissions are normal or abnormal.**

(b) **For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.**

(c) **In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.**

(d) **A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.**

(e) **If abnormal emissions are observed, the Permittee shall take reasonable steps in accordance with Section C – Response to Excursions or Exceedances. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances, shall be considered a deviation from this permit.**

D.16.10 Baghouses Parametric Monitoring [326 IAC 2-7-5(3)(A)(iii)][326 IAC 2-7-5(d)]

The Permittee shall record the pressure drop across the baghouse used in conjunction with the acidless metal cleaning line (AMC) at least once per day when the acidless metal cleaning line (AMC) is in operation. When for any one reading, the pressure drop across the baghouse is outside the range of 3 to 8 inches of water or a range established during the latest stack test, the Permittee shall take reasonable steps in accordance with Section C - Response to Excursions or Exceedances. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take reasonable response steps in accordance with Section C - Response to Excursions or Exceedances, shall be considered a deviation from this permit.

The instrument used for determining the pressure shall comply with Section C - Instrument Specifications, of this permit, shall be subject to approval by IDEM, OAQ, and shall be calibrated at least once annually.

D.16.11 Broken or Failed Bag Detection

(a) For a single compartment baghouse controlling emissions from a process operated continuously, a failed unit and the associated process shall be shut down immediately until the failed unit has been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).

(b) For a single compartment baghouse controlling emissions from a batch process, the feed to the process shall be shut down immediately until the failed unit has been repaired or replaced. The emissions unit shall be shut down no later than the completion of the processing of the material in the line. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).

Bag failure can be indicated by a significant drop in the baghouse pressure reading with abnormal visible emissions, by an opacity violation, or by other means such as gas temperature, flow rate, air infiltration, leaks, dust traces or triboflows.

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

D.16.12 Record Keeping Requirements

(a) To document compliance with Condition D.16.9, the Permittee shall maintain a daily record of the visible emission notations at the acidless metal cleaning line (AMC) baghouse stack exhaust. The Permittee shall include in its daily record when a visible emission notation is not taken and the reason for the lack of visible emission notation (e.g., the process did not operate that day).

(b) To document compliance with Condition D.16.10, the Permittee shall maintain a daily record of the pressure drop across the baghouse controlling emission unit. The Permittee shall include in its daily record when a pressure drop reading is not taken and the reason for the lack of a pressure drop reading, (e.g., the process did not operate that day).

(c) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

National Emissions Standards for Hazardous Air Pollutants (NESHAP) Requirements: HCl Process Facilities and Hydrochloric Acid Regeneration Plants

~~D.16.7~~ **D.16.13** General Provisions Relating to NESHAP [326 IAC 20-1] [40 CFR Part 63, Subpart A]

~~D.16.8~~ **D.16.14** National Emissions Standards for Hazardous Air Pollutants for Steel Pickling-HCl Process Facilities and Hydrochloric Acid Regeneration Plants [40 CFR Part 63, Subpart CCC]

~~D.16.9~~ **D.16.15** One Time Deadlines Relating to National Emission Standards for Hazardous Air Pollutants for Steel Pickling, HCl Process Facilities, and Hydrochloric Acid Regeneration Plants [40 CFR Part 63, Subpart CCC]

2. Upon further review, IDEM has also decided to add the specific mail coding for the IDEM branches to improve mail delivery.

Conclusion and Recommendation

The construction and operation of this proposed modification shall be subject to the conditions of the attached proposed Part 70 Significant Source Modification No. 107-24187-00038 and Part 70 Significant Permit Modification No. 107-24284-00038. The staff recommends to the Commissioner that this Part 70 Significant Source Modification and Part 70 Significant Permit Modification be approved.

Appendix A: Emission Calculations

PM/PM10 and HAP Emissions From Acidless Metal Cleaning Line Continuous Blasting Operations Before Control

Company Name: Nucor Steel
Address: 4537 South Nucor Road
SSM to Title V: 107-24187-00038
Reviewer: ERG/ST
Date: March 29, 2007

Emissions Unit ID #	Blast Rate (lbs steel grit per hour)	Pollutant	PM/PM10 Emission Factors (lbs/lb grit)	PM/PM10 Emission Factors (lbs/lb grit)	Chromium Emission Factor* (lbs/lb particulate)	Manganese Emission Factor* (lbs/lb particulate)	Nickel Emission Factor* (lbs/lb particulate)	Lead Emission Factor* (lbs/lb particulate)	Beryllium Emission Factor* (lbs/lb particulate)
Acidless Metal Cleaning Line	272,160	PM	0.004		0.017	0.0096	0.0024	0.000010	0.000048
		PM10		0.00344	0.017	0.0096	0.0024	0.000010	0.000048

PTE of PM Before Controls (ton/yr)	PTE of PM10 Before Controls (ton/yr)	PTE of Chromium Before Controls (ton/yr)	PTE of Manganese Before Controls (ton/yr)	PTE of Nickel Before Controls (ton/yr)	PTE of Lead Before Controls (ton/yr)	PTE of Beryllium Before Controls (ton/yr)
4768	---	81.1	45.8	11.4	0.05	0.23
---	4101					

Emission factors for the Abrasive Blasting are from STAPPA/ALAPCO, Section 3 "Abrasive Blasting" for abrasive grit (1991). PM10 emissions are 0.86 that of PM.

Captured abrasive is reused.

* Assume all particulate is steel dust. The source has stated that the metal is 1.7% chromium, 0.96% manganese, 0.24% nickel, 0.001% lead, and 0.0048% beryllium by weight. The metal also contains trace amounts of cadmium, cobalt, and selenium.

Methodology

PTE of PM/PM10 Before Controls (tons/year) = Blast Rate (lbs grit/hour) x Emission Factor (lbs/lb grit) x 8,760 hours/year x 1 ton/2,000 lbs

PTE of HAPs Before Controls (tons/year) = PTE of PM/PM10 Before Controls (tons/year) x HAP Emission Factor (lbs/lb particulate)

Appendix A: Emission Calculations

PM/PM10 and HAP Emissions From Acidless Metal Cleaning Line Continuous Blasting Operations After Control

Company Name: Nucor Steel
Address: 4537 South Nucor Road
SSM to Title V: 107-24187-00038
Reviewer: ERG/ST
Date: March 29, 2007

Emissions Unit ID #	Baghouse ID	Stack ID	Air Flow Rate (acfm)	Outlet Grain Loading (grain/dscf)	Control Efficiency (%)	PTE of PM/PM10 After Controls (ton/yr)	PTE of PM/PM10 After Controls (lbs/hr)	PTE of Chromium After Controls (ton/yr)	PTE of Manganese After Controls (ton/yr)	PTE of Nickel After Controls (ton/yr)	PTE of Lead After Controls (ton/yr)	PTE of Beryllium After Controls (ton/yr)
Acidless Metal Cleaning Line	AMC	S-AMC	36,600	0.0018	99.9%	2.47	0.56	0.042	0.024	0.006	0.000025	0.00012

Assume all PM is equal to PM10.

A cyclone recovers blast abrasive. Captured abrasive is reused. A baghouse controls particuate emissions. Capture/control efficiency is as reported by source.

* Assume all particulate is steel dust. The source has stated that the metal is 1.7% chromium, 0.96% manganese, 0.24% nickel, 0.001% lead, and 0.0048% beryllium by weight. The metal also contains trace amounts of cadmium, cobalt, and selenium.

Methodology

PTE of PM/PM10 Controlled (lbs/hr) = Air Flow Rate (acfm) x Outlet Grain Loading (gr/scf) x 60 mins/hour x 1 lb/7000 gr

PTE of PM/PM10 Controlled (tons/year) = Air Flow Rate (acfm) x Outlet Grain Loading (gr/scf) x 60 mins/hour x 8,760 hours/year x 1 lb/7000 gr x 1 ton/2,000 lbs

PTE of HAPs Controlled (tons/year) = PTE of PM/PM10 Controlled (tons/year) x Weight % HAP (see previous page)