



Indiana Department of Environmental Management

We Protect Hoosiers and Our Environment.

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Governor

Carol S. Comer
Commissioner

NOTICE OF 30-DAY PERIOD FOR PUBLIC COMMENT

Preliminary Findings Regarding a
Significant Modification to a
Part 70 Operating Permit

for Steel Dynamics, Inc. - Flat Roll Division in DeKalb County

Significant Permit Modification No.: 033-37274-00043

The Indiana Department of Environmental Management (IDEM) has received an application from Steel Dynamics, Inc. - Flat Roll Division, located at 4500 County Road 59, Butler, IN 46721, for a significant modification of its Part 70 Operating Permit issued on December 30, 2014. If approved by IDEM's Office of Air Quality (OAQ), this proposed modification would allow Steel Dynamics, Inc. - Flat Roll Division to make certain changes at its existing source. Steel Dynamics, Inc. - Flat Roll Division requests the following changes related to the CME project:

- (1) Removal of Paint Line 3, which was added in SSM 033-34898-00043, but never constructed.
- (2) Addition of eight (8) 1.86 MMBtu/hr natural gas-fired burners (totaling 14.88 MMBtu/hr) to the Galvanizing Line 1.
- (3) Adjustment of the particulate limits for the Hot Band Leveler, which was added in SSM 033-34898-00043.

The applicant intends to construct and operate new equipment that will emit air pollutants; therefore, the permit contains new or different permit conditions. In addition, some conditions from previously issued permits/approvals have been corrected, changed, or removed. These corrections, changes, and removals may include Title I changes (e.g. changes that add or modify synthetic minor emission limits). IDEM has reviewed this application and has developed preliminary findings, consisting of a draft permit and several supporting documents, which would allow the applicant to make this change.

A copy of the permit application and IDEM's preliminary findings are available at:

Butler Public Library
340 South Broadway Street
Butler, IN 46721

and

IDEM Northern Regional Office
300 N. Michigan Street, Suite 450
South Bend, IN 46601-1295

A copy of the preliminary findings is available on the Internet at: <http://www.in.gov/ai/appfiles/idem-caats/>.

How can you participate in this process?

The date that this notice is published in a newspaper marks the beginning of a 30-day public comment period. If the 30th day of the comment period falls on a day when IDEM offices are closed for business, all comments must be postmarked or delivered in person on the next business day that IDEM is open.

You may request that IDEM hold a public hearing about this draft permit. If adverse comments concerning the **air pollution impact** of this draft permit are received, with a request for a public hearing, IDEM will decide whether or not to hold a public hearing. IDEM could also decide to hold a public meeting instead of, or in addition to, a public hearing. If a public hearing or meeting is held, IDEM will make a separate announcement of the date, time, and location of that hearing or meeting. At a hearing, you would have an opportunity to submit written comments and make verbal comments. At a meeting, you would have an opportunity to submit written comments, ask questions, and discuss any air pollution concerns with IDEM staff.

Comments and supporting documentation, or a request for a public hearing should be sent in writing to IDEM at the address below. If you comment via e-mail, please include your full U.S. mailing address so that you can be added to IDEM's mailing list to receive notice of future action related to this permit. If you do not want to comment at this time, but would like to receive notice of future action related to this permit application, please contact IDEM at the address below. Please refer to permit number SPM 033-37274-00043 in all correspondence.

Comments should be sent to:

Heath Hartley
IDEM, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251
(800) 451-6027, ask for extension 2-8217
Or dial directly: (317) 232-8217
Fax: (317) 232-6749 attn: Heath Hartley
E-mail: hhartley@idem.IN.gov

All comments will be considered by IDEM when we make a decision to issue or deny the permit. Comments that are most likely to affect final permit decisions are those based on the rules and laws governing this permitting process (326 IAC 2), air quality issues, and technical issues. IDEM does not have legal authority to regulate zoning, odor, or noise. For such issues, please contact your local officials.

For additional information about air permits and how the public and interested parties can participate, refer to the IDEM Permit Guide on the Internet at: <http://www.in.gov/idem/5881.htm>; and the Citizens' Guide to IDEM on the Internet at: <http://www.in.gov/idem/6900.htm>.

What will happen after IDEM makes a decision?

Following the end of the public comment period, IDEM will issue a Notice of Decision stating whether the permit has been issued or denied. If the permit is issued, it may be different than the draft permit because of comments that were received during the public comment period. If comments are received during the public notice period, the final decision will include a document that summarizes the comments and IDEM's response to those comments. If you have submitted comments or have asked to be added to the mailing list, you will receive a Notice of the Decision. The notice will provide details on how you may appeal IDEM's decision, if you disagree with that decision. The final decision will also be available on the Internet at the address indicated above, at the local library indicated above, at the IDEM Regional Office indicated above, and the IDEM public file room on the 12th floor of the Indiana Government Center North, 100 N. Senate Avenue, Indianapolis, Indiana 46204-2251.

If you have any questions, please contact Heath Hartley of my staff at the above address.

A handwritten signature in black ink, appearing to read 'Jenny Acker', with a stylized, flowing script.

Jenny Acker, Section Chief
Permits Branch
Office of Air Quality



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Ms. Nicole Wiley
Steel Dynamics, Inc. - Flat Roll Division
4500 County Road 59
Butler, IN 46721

Re: 033-37274-00043
Significant Permit Modification to
Part 70 Renewal No.: T033-30061-00043

Dear Ms. Wiley:

Steel Dynamics, Inc. - Flat Roll Division was issued Part 70 Operating Permit Renewal No. T033-30061-00043 on December 30, 2014 for a stationary steel minimill located at 4500 County Road 59, Butler, IN 46721. An application requesting changes to this permit was received on June 8, 2016. Pursuant to the provisions of 326 IAC 2-7-12, a Significant Permit Modification to this permit is hereby approved as described in the attached Technical Support Document.

Please find attached the entire Part 70 Operating Permit as modified. The permit references the below listed attachment(s). Since these attachments have been provided in previously issued approvals for this source, IDEM OAQ has not included a copy of these attachments with this modification:

- Attachment A: Fugitive Dust Control Plan
- Attachment B: 40 CFR 60, Subpart AAa, New Source Performance Standards for Steel Plants: Electric Arc Furnaces and Argon-Oxygen Decarburization Vessels Constructed After August 17, 1983
- Attachment C: 40 CFR 63, Subpart YYYYYY, National Emission Standards for Hazardous Air Pollutants for Area Sources: Electric Arc Furnace Steelmaking Facilities
- Attachment D: 40 CFR 60, Subpart Dc, New Source Performance Standards for Small industrial Boilers, Commercial-Institutional Steam Generating Boilers
- Attachment E: 40 CFR 60, Subpart TT, New Source Performance Standards for Metal Coil Surface Coating
- Attachment F: 40 CFR 63, Subpart ZZZZ, National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines
- Attachment G: 40 CFR 60, Subpart IIII, New Source Performance Standard for Stationary Compression Ignition Internal Combustion Engines
- Attachment H: 40 CFR 63, Subpart CCCCCC, National Emission Standards for Hazardous Air Pollutants for Source Category: Gasoline Dispensing Facilities

Previously issued approvals for this source containing these attachments are available on the Internet at: <http://www.in.gov/ai/appfiles/idem-caats/>.

Federal rules under Title 40 of United States Code of Federal Regulations may also be found on the U.S. Government Printing Office's Electronic Code of Federal Regulations (eCFR) website, located on the Internet at: http://www.ecfr.gov/cgi-bin/text-idx?tpl=/ecfrbrowse/Title40/40tab_02.tpl.

A copy of the permit is available on the Internet at: <http://www.in.gov/ai/appfiles/idem-caats/>. For additional information about air permits and how the public and interested parties can participate, refer to the IDEM Permit Guide on the Internet at: <http://www.in.gov/idem/5881.htm>; and the Citizens' Guide to IDEM on the Internet at: <http://www.in.gov/idem/6900.htm>.

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

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If you have any questions on this matter, please contact Heath Hartley, of my staff, OAQ, 100 North Senate Avenue, MC 61-53 IGCN 1003, Indianapolis, Indiana, 46204-2251 at 317-232-8217 or 1-800-451-6027, and ask for extension 2-8217.

Sincerely,

Jenny Acker, Section Chief
Permits Branch
Office of Air Quality

Attachments: Modified Permit and Technical Support Document

cc: File - DeKalb County
DeKalb County Health Department
U.S. EPA, Region 5
Compliance and Enforcement Branch
IDEM Northern Regional Office



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Commissioner

Part 70 Operating Permit Renewal

OFFICE OF AIR QUALITY

Steel Dynamics, Inc. - Flat Roll Division
4500 County Road 59
Butler, Indiana 46721

(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.

Operation Permit No.: T033-30061-00043	
Issued by: Original Signed Jenny Acker, Section Chief Permits Branch Office of Air Quality	Issuance Date: December 30, 2014 Expiration Date: December 30, 2019

Administrative Amendment No. 033-34896-00043, issued on December 30, 2014
First Significant Permit Modification No.: 033-34947-00043, issued on September 18, 2015
Second Significant Permit Modification No.: 033-34511-00043, issued on November 25, 2015

Significant Permit Modification No.: 033-37274-00043	
Issued by: Jenny Acker, Section Chief, Permits Branch Office of Air Quality	Issuance Date: Expiration Date: December 30, 2019

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SECTION A

SOURCE SUMMARY

This permit is based on information requested by the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ). The information describing the source contained in conditions A.1- General Information, A.2 - Part 70 Source Definition, A.3 - Emission Units and Pollution Control Equipment Summary, A.4 - Specifically Regulated Insignificant Activities, and A.5 - Insignificant Activities 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(14)][326 IAC 2-7-1(22)]

The Permittee owns and operates a stationary steel minimill.

Source Address:	4500 County Road 59, Butler, Indiana 46721
General Source Phone Number:	(260) 868-8000
SIC Code:	3312 (Steel Works, Blast Furnaces (Including Coke Ovens), and Rolling Mills)
County Location:	DeKalb
Source Location Status:	Attainment for all criteria pollutants
Source Status:	Part 70 Operating Permit Program Major Source, under PSD Rules Minor 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)]

The source consists of:

- (a) Steel Dynamics, Inc. - Flat Roll Division (SDI-Flat Roll), located at 4500 County Road 59, Butler, Indiana 46721; and
- (b) Steel Dynamics, Inc. - Iron Dynamics Division (SDI-IDD), located at 4500 County Road 59, Butler, Indiana 46721.

Separate Part 70 permits will be issued to Steel Dynamics, Inc. - Flat Roll Division (033-00043) and Steel Dynamics, Inc. - Iron Dynamics Division (033-00076), solely for administrative purposes. For this permit, the Permittee is Steel Dynamics, Inc. - Flat Roll Division, the primary operation.

A.3 Emission Units and Pollution Control Equipment Summary [326 IAC 2-7-4(c)(3)][326 IAC 2-7-5(14)]

Steel Dynamics, Inc. - Flat Roll Division consists of the following emission units and pollution control devices:

Melt Shop Operations

- (a) Electric Arc Furnaces (EAF)

Two (2) twin shell electric arc furnaces (EAF #1 South, permitted in 1994 for construction and EAF #2 North, permitted in 1997 for construction), each with a nominal capacity of 200 tons per hour, using a direct shell evacuation (DSE) system ("fourth hole" duct), an overhead roof exhaust system consisting of canopy hoods, DSE air gap for carbon monoxide (CO) emissions control, and low-NO_x/oxyfuel burners (combustion control) for nitrogen oxide (NO_x) emissions control. Particulate emissions from EAF #2 North are

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controlled by EAF Baghouse 2. All emissions from EAF #2 North exhaust to Stack 92. Particulate emissions from EAF #1 South are controlled by EAF Baghouse 1. All emissions from EAF #1 South exhaust to Stack 01.

(b) Continuous Casters

Two (2) continuous casters (CC #1 South, permitted in 1994 for construction and CC #2 North, permitted in 1997 for construction), each with a nominal capacity of 225 tons per hour. Particulate matter (PM/PM10) emissions are captured by canopy hoods over each caster exhausting to the EAF baghouse through Stack 01.

(c) Miscellaneous natural gas combustion sources

- (1) Two (2) ladle dryout station (LDS), with a nominal heat input of 10 MMBtu per hour, permitted in 1994 for construction;
- (2) Five (5) ladle preheat stations (LPS), with a nominal heat input of 10 MMBtu per hour each, three (3) permitted in 1994 and one (1) permitted in 1995 for construction;
- (3) Three (3) natural gas fired tundish ladle dryers with a nominal heat input capacity of 1.5 MMBtu per hour each, one (1) permitted in 1994 and two (2) permitted in 1995 for construction;
- (4) Two (2) natural gas-fired tundish preheaters with a nominal heat input capacity of 9.4 MMBtu per hour each, permitted in 1994 for construction; and
- (5) Lancing and cutting of skulls, coils and steel scrap.

(d) Storage Silos and Bins

- (1) Twenty - two (22) storage silos including the following:
 - (A) Three (3) EAF dust silos consisting of:
 - (i) Bin vent 5a for particulate matter control permitted in 1994 for construction,
 - (ii) Bin vent 5b for particulate matter control permitted in 1997 for construction and
 - (iii) Bin vent 5c for particulate matter control, permitted in 2007 for construction.
 - (B) Six (6) Lime/carbon silos with bin vents 22 through 27 for particulate matter control, permitted in 1994 and 1997 for construction, and
 - (C) Two (2) LMF lime silos, permitted in 1997 for construction, with emissions controlled by bin vents, and exhausting outside.
 - (D) Two (2) alloy silos with bin vents 28 and 29 for particulate matter control, permitted in 1994 for construction.
 - (E) One (1) carbon injection silo, permitted in 1997 for construction, with emissions controlled by bin vents, exhausting through Stack 46.

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- (F) One (1) carbon silo, approved in 2011 for construction, with a nominal throughput of 15 tons per hour, and using bin vent 93 as control.
 - (G) One (1) cold mill water treatment silo, constructed in 1997 and permitted in 2015, controlled by bin vent 35, and exhausting to vent 35.
 - (H) Six (6) Lime/carbon silos, constructed in 1995 and permitted in 2015, with three (3) silos routed to bin vent 33 for particulate matter control and exhausting through vent 33 and three (3) silos routed to bin vent 34 for particulate matter control and exhausting through vent 34.
- (2) Enclosed, indoor and/or pneumatic conveying to control fugitive emissions.
- (e) Slag pit digouts associated with each electric arc furnace.
 - (f) Melt shop building openings, dust handling system and melt shop roof monitors.

Ladle Metallurgical Stations

Two (2) Ladle Metallurgical Stations (LMS) (South permitted in 1994 for construction and approved in 2013 for modification and North permitted in 1998 for construction), each with a nominal capacity of 200 tons per hour. Particulate (PM/PM10) emissions are controlled by the Ladle Metallurgical Furnaces (LMF) baghouse (permitted in 1998 for construction, with a nominal air flow rate of 200,000 standard cubic feet per minute) exhausting through Stack 61. The LMS consists of the following:

- (a) One (1) Ladle Metallurgical Furnace (LMF1), modified in 2013 with the integration of existing stir station 1.
- (b) One (1) Ladle Metallurgical Furnace (LMF2), modified in 2013 with the integration of new stir station 2.
- (c) One (1) Ladle Metallurgical Furnace (LMF3) equipped with integrated stir station 3.

Hot Mill Operations - Tunnel Furnaces

- (a) One (1) tunnel furnace, No. 1 South, permitted in 1994 for construction, using low NOx burners, with a nominal heat input capacity of 117.9 MMBtu per hour (nominal 92 MMBtu per hour in the heating zone and nominal 25.9 MMBtu per hour in the holding zone), exhausting through Stack 2.
- (b) One (1) tunnel furnace, No. 2 North, permitted in 1997 for construction, using low NOx burners with a nominal heat input capacity of 92 MMBtu per hour in the heating zone, exhausting through Stack 42.

Cold Mill Operations – Pickling Lines

- (a) One (1) pickling line, with a nominal capacity of 1.4 million tons of steel throughput per year, permitted in 1996 for construction, with a packed scrubber and covered tanks maintained under negative pressure, for Hydrochloric Acid (HCl) control, and a mist eliminator for PM/PM-10 control, exhausting to Stack 17.
- (b) One (1) Pickling Line, identified as Pickling Line 2, approved in 2015 for construction, with a nominal capacity of 1.4 million tons of steel throughput per year, equipped with a packed scrubber (Pickling Line 2 Fume Scrubber) and covered tanks maintained under negative pressure, for particulate and Hydrochloric Acid (HCl) control, exhausting to

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Stack Pickle 2.

Pickle Line Scale Breaker

- (a) One (1) scale breaker, permitted in 1996 for construction, with a nominal capacity of 1.4 million tons of steel throughput per year that removes scale from the rolled steel prior to the pickling process. Particulate (PM/PM10) emissions are controlled by a baghouse with a nominal air flow rate of 10,600 acfm and exhausting to Stack 60.

Pickling Line Boilers

- (a) Three (3) natural gas fired boilers Nos. 1, 2 and 3, two (2) permitted in 1996 and one (1) permitted in 2006, equipped with low NOx burners, exhausting to Stacks 15, 16a and 16b. The nominal heat input for each boiler is 20.4 MMBtu per hour.
- (b) Two (2) natural gas-fired pickling line boilers, identified as Boilers #4, and #5, approved in 2015 for construction, with a nominal heat input for each boiler of 20.4 MMBtu per hour, equipped with low NOx burners, exhausting to combined Stack Boil456.

Reversing Mill

- (a) One (1) cold reversing mill, with a nominal capacity of one (1.0) million tons of steel throughput per year, permitted in 1996 for construction, with a mist eliminator for particulate (PM/PM10) emissions control, exhausting to Stack 18.
- (b) One (1) two-stand cold reversing mill, identified as Reversing Mill 2, approved in 2015 for construction, with a nominal capacity of 1.0 million tons of steel throughput per year, equipped with a mist eliminator for particulate control, exhausting to Stack Revmill 2.

Galvanizing Lines

- (a) One (1) hot band galvanizing line, identified as Galvanizing Line #1, with a nominal capacity of 570,000 tons of steel throughput per year, permitted in 1996 for construction and for modification in 2015, heated by low NOx burner natural gas fired heaters with a total nominal heat input capacity of 75.7 MMBtu per hour, and consisting of:
 - (1) Twenty-four Preheat Burners, permitted in 1996, with a total nominal rated heat input capacity of 44.71 MMBtu/hr, exhausting through Stack 19.

Replacement burners:

- (1) Four (4) Preheat Burners, approved in 2015 for construction, with a total nominal rated heat input capacity of 7.45 MMBtu/hr exhausting through Stack 19.
- (2) Eight (8) Radiant Burners, approved in 2015 for construction, with a total nominal rated heat input capacity of 2.36 MMBtu/hr, exhausting indoors.
- (3) One (1) Drying Burner, approved in 2015 for construction, with a nominal rated heat input capacity of 0.50 MMBtu/hr, exhausting indoors.

New burners:

- (1) Twenty-four (24) Radiant Burners, approved in 2015 for construction, with a total nominal rated heat input capacity of 7.08 MMBtu/hr, exhausting indoors.

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- (2) Two (2) Cleaning Burners, approved in 2015 for construction, with a total nominal rated heat input capacity of 10.60 MMBtu/hr, exhausting to Stacks G1C1 and G1C2, respectively.
 - (3) One (1) Cleaning Burner, approved in 2015 for construction, with a nominal rated heat input capacity of 3.0 MMBtu/hr, exhausting to Stack G1C3.
 - (4) Eight (8) Preheat Burners, approved in 2016 for construction, with a total nominal rated heat input capacity of 14.88 MMBtu/hr, exhausting through Stack 19.
- (b) One (1) cold rolled galvanizing line, identified as Galvanizing Line #2, with a nominal capacity of 430,000 tons of steel throughput per year, permitted in 1996 for construction and modified in 2015, heated by low NOx burner natural gas fired heaters, with a total nominal heat input capacity of 93.6 MMBtu per hour, and consisting of :
- (1) Burners, permitted in 1996, with a total nominal rated heat input capacity of 54.15 MMBtu/hr, exhausting to Stack 19.

Replacement burners:

- (1) Two (2) Cleaning Burners, approved in 2015 for construction, with a total nominal rated heat input capacity of 10.60 MMBtu/hr, exhausting to Stacks G2C1 and G2C2, respectively.
- (2) One (1) Cleaning Burner, approved in 2015 for construction, with a nominal rated heat input capacity of 3.00 MMBtu/hr, exhausting to Stack G2C3.
- (3) Three (3) Drying Burners, approved in 2015 for construction, with a total nominal rated heat input capacity of 1.50 MMBtu/hr, exhausting indoors.

New burners:

- (1) Eight (8) Preheat Burners, approved in 2015 for construction, with a total nominal rated heat input capacity of 14.90 MMBtu/hr, exhausting through Stack 19.
- (2) Thirty-two (32) Radiant Burners, approved in 2015 for construction, with a total nominal rated heat input capacity of 9.44 MMBtu/hr, exhausting indoors.

Note: This line also includes a backup cleaning burner, with nominal rated heat input capacity of 5.3 MMBtu/hr.

Annealing Furnaces

- (a) Sixteen (16) low NOx burners, natural gas fired annealing furnaces and forty (40) annealing bases, permitted in 1996 for construction. Each furnace has a nominal heat input of four (4) MMBtu per hour, exhausting through roof pipes 30, 31 and 32.

Paint Line (Coil Coating Line)

- (a) One (1) 2-side, 2-coat coil coating line, identified as Paint Line 1, permitted in 2002 for construction, using roll coating method, with a nominal capacity of 55,000 pounds per hour of the flat rolled steel, equipped with two (2) curing ovens with a combined nominal heat input capacity of 16 MMBtu per hour, using a 60 MMBtu per hour name plate rated heat input capacity burner equipped thermal oxidizer to control VOC emissions and exhausting to Stack 78.

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Slag Handling Operation

The following slag handling operations are owned and operated by Edward C. Levy Company - Butler Mill Service.

- (a) One (1) grizzly feeder with a nominal capacity of 300 tons per hour, permitted in 1994 for construction;
- (b) One (1) 36" conveyor (#9), with a nominal capacity of 350 tons per hour, permitted in 1994 for construction;
- (c) One (1) 42" conveyor (#7), with a nominal capacity of 350 tons per hour, permitted in 1994 for construction;
- (d) Two (2) 5' by 12' Screens, each with a nominal capacity of 350 tons per hour, permitted in 1994 for construction;
- (e) One (1) 36" conveyor (#6), with a nominal capacity of 193 tons per hour, constructed in 1994 and modified in 2014;
- (f) One (1) 30" conveyor (#5), with a nominal capacity of 250 tons per hour, permitted in 1994 for construction;
- (g) Three (3) 6' by 16' Screens, each with a nominal capacity of 250 tons per hour, permitted in 1994 for construction;
- (h) One (1) 48" Conveyor (#1), with a nominal capacity of 75 tons per hour, permitted in 1994 for construction;
- (i) One (1) 30" Stacker (#1), with a nominal capacity of 75 tons per hour, permitted in 1994 for construction;
- (j) One (1) 24" Stacker (#2), with a nominal capacity of 125 tons per hour, permitted in 1994 for construction;
- (k) One (1) 24" Conveyor (#12); with a nominal capacity of 40 tons per hour, permitted in 1994 for construction;
- (l) One (1) 24" Stacker (#4), with a nominal capacity of 50 tons per hour, permitted in 1994 for construction;
- (m) One (1) 4 ¼ Standard Crusher, with a nominal capacity of 50 tons per hour, permitted in 1994 for construction;
- (n) One (1) 30" Conveyor (#8), with a nominal capacity of 25 tons per hour; permitted in 1994 for construction;
- (o) Two (2) 30" Conveyors (#10 and #11), with a nominal capacity of 50 tons per hour each, permitted in 2003 for construction;
- (p) One (1) jaw crusher, identified as J01, with a nominal capacity of 193 tons per hour, approved in 2014 for construction.
- (q) Aggregate Storage Piles.

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- (r) Three (3) slag storage areas, approved in 2013 for construction, identified as Slag Area 1, 2, and 3, each with a nominal throughput of 400 tons per hour.

Fugitive emissions from parts of the slag handling operations are controlled as needed by water sprays.

Fugitive Dust Sources

- (a) Paved roads,
- (b) Parking areas,
- (c) Unpaved roads, and
- (d) Traveled open areas.

Emergency Generators

- (a) Three (3) emergency diesel generators, identified as CM Watertreat, Main Watertreat (East), and Main Watertreat (West), approved in 1996, 1997, and 1995 for construction, each with a nominal capacity of 1500Kw (2011 hp). [40 CFR 63, Subpart ZZZZ]

Hot Band Leveler

- (a) One (1) Hot Band Leveler, constructed in 2012, with a nominal process rate of 160 tons of steel throughput per hour, equipped with a baghouse for particulate control, exhausting indoors through stack Level.

A.4 Specifically Regulated Insignificant Activities [326 IAC 2-7-1(21)][326 IAC 2-7-4(c)][326 IAC 2-7-5(14)]

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

- (a) Natural gas-fired combustion sources with heat input equal to or less than ten million (10,000,000) Btu per hour. [326 IAC 6-2-4]
 - (1) Eighteen (18) natural gas-fired heating units, each with a nominal rating of 250,000 Btu/hr. This is the total number of units for both Steel Dynamics, Inc. - Flat Roll Division and Steel Dynamics, Inc. - Iron Dynamics Division.
- (b) Emergency generators as follows: Diesel generators not exceeding one thousand six hundred (1,600) horsepower.
 - (1) One (1) emergency diesel generator, identified as Melt Shop (Door 26), approved 2010 for construction, with a nominal capacity of 500 Kw (670 hp). [40 CFR 60, Subpart IIII][40 CFR 63, Subpart ZZZZ]
- (c) A gasoline fuel transfer dispensing operation handling less than or equal to one thousand three hundred (1,300) gallons per day and filling storage tanks having a capacity equal to or less than ten thousand five hundred (10,500) gallons. Such storage tanks may be in a fixed location or on mobile equipment. This facility includes the following:
 - (1) One (1) gasoline storage tank, approved in 2013 for construction, identified as T2 or Gasoline Storage Tank #2, with a nominal storage capacity of two thousand (2,000) gallons. [40 CFR 63, Subpart CCCCCC]

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- (2) One (1) gasoline storage tank, approved in 2013 for construction, identified as T3 or Gasoline Storage Tank #3, with a nominal storage capacity of five thousand (5,000) gallons. [40 CFR 63, Subpart CCCCCC]
- (d) Covered conveyors for solid raw material, including the following: [326 IAC 6-3-2]
 - (1) Coal or coke conveying of less than or equal to three hundred sixty (360) tons per day.
 - (2) Limestone conveying of less than or equal to seven thousand two hundred (7,200) tons per day for sources other than mineral processing plants constructed after August 31, 1983.

A.5 Insignificant Activities [326 IAC 2-7-1(21)][326 IAC 2-7-4(c)][326 IAC 2-7-5(14)]

Steel Dynamics, Inc. - Flat Roll Division also includes the following insignificant activities:

- (a) Combustion source flame safety purging on startup.
- (b) Fuel dispensing activities, including the following:
 - (1) A petroleum fuel other than gasoline dispensing facility, having a storage tank capacity less than or equal to ten thousand five hundred (10,500) gallons, and dispensing three thousand five hundred (3,500) gallons per day or less. A petroleum fuel, other than gasoline, dispensing facility having a storage capacity less than or equal to ten thousand five hundred (10,500) gallons, and dispensing less than or equal to two hundred thirty thousand (230,000) gallons per month. This facility includes the following:
 - (A) One (1) diesel storage tank, approved in 2013 for construction, identified as T1 or Diesel Storage Tank #1, with a nominal storage capacity of two thousand (2,000) gallons.
 - (B) One (1) diesel storage tank, approved in 2013 for construction, identified as T4 or Diesel Storage Tank #4, with a nominal storage capacity of five thousand (5,000) gallons.
 - (C) Two (2) diesel dispensing operations, approved in 2013 for construction, identified as T1 and T4.
- (c) The following VOC and HAP storage containers:
 - (1) Storage tanks with capacity less than or equal to one thousand (1,000) gallons and annual throughputs equal to or less than twelve thousand (12,000) gallons.
 - (2) Vessels storing lubricating oils, hydraulic oils, machining oils, and machining fluids.
- (d) Refractory storage not requiring air pollution control equipment.
- (e) Equipment used exclusively for filling drums, pails, or other packaging containers with the following: Lubricating oils, Waxes and Greases.
- (f) Application of: oils; greases; lubricants; and nonvolatile material; as temporary protective coatings.

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- (g) Machining where an aqueous cutting coolant continuously floods the machining interface.
- (h) Closed loop heating and cooling systems.
- (i) Activities associated with the treatment of wastewater streams with an oil and grease content less than or equal to 1% by volume.
- (j) Activities associated with the transportation and treatment of sanitary sewage, provided discharge to the treatment plant is under the control of the owner or Operator, that is, an on-site sewage treatment facility.
- (k) Any operation using aqueous solutions containing less than or equal to one percent (1%) by weight of VOCs excluding HAPs.
- (l) Noncontact cooling tower systems with the following: Forced and induced draft cooling tower system not regulated under a NESHAP.
- (m) Replacement or repair of electrostatic precipitators, bags in baghouses and filters in other air filtration equipment.
- (n) Heat exchanger cleaning and repair.
- (o) Process vessel degassing and cleaning to prepare for internal repairs.
- (p) Purging of gas lines and vessels that is related to routine maintenance and repair of buildings, structures, or vehicles at the source where air emissions from those activities would not be associated with any production process.
- (q) Equipment used to collect any material that might be released during a malfunction, process upset, or spill cleanup, including catch tanks, temporary liquid separators, tanks, and fluid handling equipment.
- (r) Blow down for any of the following: sight glass; boiler; compressors; pumps; and cooling tower.
- (s) On-site fire training approved by the department.
- (t) Purge double block and bleed valves.
- (u) Filter or coalescer media changeout.
- (v) A laboratory as defined in 326 IAC 2-7-1(21)(D)
- (w) Degreasing operations that do not exceed 145 gallons per 12 months, except if subject to 326 IAC 20-6.
- (x) Cleaners and solvents characterized as follows: Having a vapor pressure equal to or less than 2 kPa; 15 mm Hg; or 0.3 psi measured at 38°C (100°F).
- (y) Brazing equipment, cutting torches, soldering equipment, and welding equipment related to manufacturing activities not resulting in emissions of HAPs.
- (z) One (1) electric Temper Mill, used to align steel fibers, with no emissions.

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- (aa) One (1) solvent recovery system, associated with the Paint Line (Coil Coating Line), with a nominal throughput of 25,410 gallons of solvent recovered per year, and exhausting inside.

A.6 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).

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SECTION B GENERAL CONDITIONS

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

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

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

- (a) This permit, T033-30061-00043, is issued for a fixed term of five (5) years from the issuance date of this permit, as determined in accordance with IC 4-21.5-3-5(f) and IC 13-15-5-3. Subsequent revisions, modifications, or amendments of this permit do not affect the expiration date of this permit.
- (b) If IDEM, OAQ, upon receiving a timely and complete renewal permit application, fails to issue or deny the permit renewal prior to the expiration date of this permit, this existing permit shall not expire and all terms and conditions shall continue in effect, including any permit shield provided in 326 IAC 2-7-15, until the renewal permit has been issued or denied.

B.3 Term of Conditions [326 IAC 2-1.1-9.5]

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

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

B.4 Enforceability [326 IAC 2-7-7][IC 13-17-12]

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

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

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

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

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

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

- (a) The Permittee shall furnish to IDEM, OAQ, within a reasonable time, any information that IDEM, OAQ may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. Upon request, the Permittee shall also furnish to IDEM, OAQ copies of records required to be kept by this permit.
- (b) For information furnished by the Permittee to IDEM, OAQ, the Permittee may include a claim of confidentiality in accordance with 326 IAC 17.1. When furnishing copies of requested records directly to U. S. EPA, the Permittee may assert a claim of confidentiality in accordance with 40 CFR 2, Subpart B.

B.8 Certification [326 IAC 2-7-4(f)][326 IAC 2-7-6(1)][326 IAC 2-7-5(3)(C)]

- (a) A certification required by this permit meets the requirements of 326 IAC 2-7-6(1) if:

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- (1) it contains a certification by a "responsible official" as defined by 326 IAC 2-7-1(35), and
- (2) the certification states that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.
- (b) The Permittee may use the attached Certification Form, or its equivalent with each submittal requiring certification. One (1) certification may cover multiple forms in one (1) submittal.
- (c) A "responsible official" is defined at 326 IAC 2-7-1(35).

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

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

Indiana Department of Environmental Management
Compliance and Enforcement Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

and

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

- (b) The annual compliance certification report required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ on or before the date it is due.
- (c) The annual compliance certification report shall include the following:
 - (1) The appropriate identification of each term or condition of this permit that is the basis of the certification;
 - (2) The compliance status;
 - (3) Whether compliance was continuous or intermittent;
 - (4) The methods used for determining the compliance status of the source, currently and over the reporting period consistent with 326 IAC 2-7-5(3); and
 - (5) Such other facts, as specified in Sections D of this permit, as IDEM, OAQ may require to determine the compliance status of the source.

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The submittal by the Permittee does require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35).

B.10 Preventive Maintenance Plan [326 IAC 2-7-5(12)][326 IAC 1-6-3]

- (a) A Preventive Maintenance Plan meets the requirements of 326 IAC 1-6-3 if it includes, at a minimum:

- (1) Identification of the individual(s) responsible for inspecting, maintaining, and repairing emission control devices;
- (2) A description of the items or conditions that will be inspected and the inspection schedule for said items or conditions; and
- (3) Identification and quantification of the replacement parts that will be maintained in inventory for quick replacement.

The Permittee shall implement the PMPs.

- (b) If required by specific condition(s) in Section D of this permit where no PMP was previously required, the Permittee shall prepare and maintain Preventive Maintenance Plans (PMPs) no later than ninety (90) days after issuance of this permit or ninety (90) days after initial start-up, whichever is later, including the following information on each facility:

- (1) Identification of the individual(s) responsible for inspecting, maintaining, and repairing emission control devices;
- (2) A description of the items or conditions that will be inspected and the inspection schedule for said items or conditions; and
- (3) Identification and quantification of the replacement parts that will be maintained in inventory for quick replacement.

If, due to circumstances beyond the Permittee's control, the PMPs cannot be prepared and maintained within the above time frame, the Permittee may extend the date an additional ninety (90) days provided the Permittee notifies:

Indiana Department of Environmental Management
Compliance and Enforcement Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

The PMP extension notification does not require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35).

The Permittee shall implement the PMPs.

- (c) A copy of the PMPs shall be submitted to IDEM, OAQ upon request and within a reasonable time, and shall be subject to review and approval by IDEM, OAQ. IDEM, OAQ may require the Permittee to revise its PMPs whenever lack of proper maintenance causes or is the primary contributor to an exceedance of any limitation on emissions. The PMPs and their submittal do not require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35).

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

B.11 Emergency Provisions [326 IAC 2-7-16]

- (a) An emergency, as defined in 326 IAC 2-7-1(12), is not an affirmative defense for an action brought for noncompliance with a federal or state health-based emission limitation except as otherwise provided in 326 IAC 2-7-16.
- (b) An emergency, as defined in 326 IAC 2-7-1(12), constitutes an affirmative defense to an action brought for noncompliance with a technology-based emission limitation if the affirmative defense of an emergency is demonstrated through properly signed, contemporaneous operating logs or other relevant evidence that describe the following:

- (1) An emergency occurred and the Permittee can, to the extent possible, identify the causes of the emergency;
- (2) The permitted facility was at the time being properly operated;
- (3) During the period of an emergency, the Permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards or other requirements in this permit;
- (4) For each emergency lasting one (1) hour or more, the Permittee notified IDEM, OAQ or Northern Regional Office within four (4) daytime business hours after the beginning of the emergency, or after the emergency was discovered or reasonably should have been discovered;

Telephone Number: 1-800-451-6027 (ask for Office of Air Quality, Compliance and Enforcement Branch), or
Telephone Number: 317-233-0178 (ask for Office of Air Quality, Compliance and Enforcement Branch)
Facsimile Number: 317-233-6865
Northern Regional Office phone: (574) 245-4870; fax: (574) 245-4877.

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

Indiana Department of Environmental Management
Compliance and Enforcement Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

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

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

- (A) A description of the emergency;
- (B) Any steps taken to mitigate the emissions; and

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(C) Corrective actions taken.

The notification which shall be submitted by the Permittee does not require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35).

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

- (c) In any enforcement proceeding, the Permittee seeking to establish the occurrence of an emergency has the burden of proof.
- (d) This emergency provision supersedes 326 IAC 1-6 (Malfunctions). This permit condition is in addition to any emergency or upset provision contained in any applicable requirement.
- (e) The Permittee seeking to establish the occurrence of an emergency shall make records available upon request to ensure that failure to implement a PMP did not cause or contribute to an exceedance of any limitations on emissions. However, IDEM, OAQ may require that the Preventive Maintenance Plans required under 326 IAC 2-7-4(c)(8) be revised in response to an emergency.
- (f) Failure to notify IDEM, OAQ by telephone or facsimile of an emergency lasting more than one (1) hour in accordance with (b)(4) and (5) of this condition shall constitute a violation of 326 IAC 2-7 and any other applicable rules.
- (g) If the emergency situation causes a deviation from a technology-based limit, the Permittee may continue to operate the affected emitting facilities during the emergency provided the Permittee immediately takes all reasonable steps to correct the emergency and minimize emissions.

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

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

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

- (b) If, after issuance of this permit, it is determined that the permit is in nonconformance with an applicable requirement that applied to the source on the date of permit issuance, IDEM, OAQ shall immediately take steps to reopen and revise this permit and issue a compliance order to the Permittee to ensure expeditious compliance with the applicable requirement until the permit is reissued. The permit shield shall continue in effect so long as the Permittee is in compliance with the compliance order.

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- (c) No permit shield shall apply to any permit term or condition that is determined after issuance of this permit to have been based on erroneous information supplied in the permit application. Erroneous information means information that the Permittee knew to be false, or in the exercise of reasonable care should have been known to be false, at the time the information was submitted.
- (d) Nothing in 326 IAC 2-7-15 or in this permit shall alter or affect the following:
 - (1) The provisions of Section 303 of the Clean Air Act (emergency orders), including the authority of the U.S. EPA under Section 303 of the Clean Air Act;
 - (2) The liability of the Permittee for any violation of applicable requirements prior to or at the time of this permit's issuance;
 - (3) The applicable requirements of the acid rain program, consistent with Section 408(a) of the Clean Air Act; and
 - (4) The ability of U.S. EPA to obtain information from the Permittee under Section 114 of the Clean Air Act.
- (e) This permit shield is not applicable to any change made under 326 IAC 2-7-20(b)(2) (Sections 502(b)(10) of the Clean Air Act changes) and 326 IAC 2-7-20(c)(2) (trading based on State Implementation Plan (SIP) provisions).
- (f) This permit shield is not applicable to modifications eligible for group processing until after IDEM, OAQ, has issued the modifications. [326 IAC 2-7-12(c)(7)]
- (g) This permit shield is not applicable to minor Part 70 permit modifications until after IDEM, OAQ, has issued the modification. [326 IAC 2-7-12(b)(8)]

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

- (a) All terms and conditions of permits established prior to T033-30061-00043 and issued pursuant to permitting programs approved into the state implementation plan have been either:
 - (1) incorporated as originally stated,
 - (2) revised under 326 IAC 2-7-10.5, or
 - (3) deleted under 326 IAC 2-7-10.5.
- (b) Provided that all terms and conditions are accurately reflected in this combined permit, all previous registrations and permits are superseded by this combined new source review and part 70 operating permit.

B.14 Termination of Right to Operate [326 IAC 2-7-10][326 IAC 2-7-4(a)]

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

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

- (a) This permit may be modified, reopened, revoked and reissued, or terminated for cause. The filing of a request by the Permittee for a Part 70 Operating Permit modification,

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revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any condition of this permit. [326 IAC 2-7-5(6)(C)] The notification by the Permittee does require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35).

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

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

- (a) The application for renewal shall be submitted using the application form or forms prescribed by IDEM, OAQ and shall include the information specified in 326 IAC 2-7-4. Such information shall be included in the application for each emission unit at this source, except those emission units included on the trivial or insignificant activities list contained in 326 IAC 2-7-1(21) and 326 IAC 2-7-1(42). The renewal application does require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35).

Request for renewal shall be submitted to:

Indiana Department of Environmental Management
Permit Administration and Support Section, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

- (b) A timely renewal application is one that is:
 - (1) Submitted at least nine (9) months prior to the date of the expiration of this permit; and
 - (2) If the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ on or before the date it is due.

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- (c) If the Permittee submits a timely and complete application for renewal of this permit, the source's failure to have a permit is not a violation of 326 IAC 2-7 until IDEM, OAQ takes final action on the renewal application, except that this protection shall cease to apply if, subsequent to the completeness determination, the Permittee fails to submit by the deadline specified, pursuant to 326 IAC 2-7-4(a)(2)(D), in writing by IDEM, OAQ any additional information identified as being needed to process the application.

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

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

Indiana Department of Environmental Management
Permit Administration and Support Section, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

Any such application does require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35).

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

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

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

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

- (a) The Permittee may make any change or changes at the source that are described in 326 IAC 2-7-20(b) or (c) without a prior permit revision, if each of the following conditions is met:
 - (1) The changes are not modifications under any provision of Title I of the Clean Air Act;
 - (2) Any preconstruction approval required by 326 IAC 2-7-10.5 has been obtained;
 - (3) The changes do not result in emissions which exceed the limitations provided in this permit (whether expressed herein as a rate of emissions or in terms of total emissions);
 - (4) The Permittee notifies the:

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Indiana Department of Environmental Management
Permit Administration and Support Section, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

and

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

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

- (5) The Permittee maintains records on-site, on a rolling five (5) year basis, which document all such changes and emission trades that are subject to 326 IAC 2-7-20(b)(1) and (c)(1). The Permittee shall make such records available, upon reasonable request, for public review.

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

- (b) The Permittee may make Section 502(b)(10) of the Clean Air Act changes (this term is defined at 326 IAC 2-7-1(37)) without a permit revision, subject to the constraint of 326 IAC 2-7-20(a). For each such Section 502(b)(10) of the Clean Air Act change, the required written notification shall include the following:

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

The notification which shall be submitted is not considered an application form, report or compliance certification. Therefore, the notification by the Permittee does not require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35).

- (c) Emission Trades [326 IAC 2-7-20(c)]
The Permittee may trade emissions increases and decreases at the source, where the applicable SIP provides for such emission trades without requiring a permit revision, subject to the constraints of Section (a) of this condition and those in 326 IAC 2-7-20(c).
- (d) Alternative Operating Scenarios [326 IAC 2-7-20(d)]
The Permittee may make changes at the source within the range of alternative operating scenarios that are described in the terms and conditions of this permit in accordance with 326 IAC 2-7-5(9). No prior notification of IDEM, OAQ or U.S. EPA is required.

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- (e) Backup fuel switches specifically addressed in, and limited under, Section D of this permit shall not be considered alternative operating scenarios. Therefore, the notification requirements of part (a) of this condition do not apply.

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

A modification, construction, or reconstruction is governed by the requirements of 326 IAC 2.

B.21 Inspection and Entry [326 IAC 2-7-6][IC 13-14-2-2][IC 13-30-3-1][IC 13-17-3-2]

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

- (a) Enter upon the Permittee's premises where a Part 70 source is located, or emissions related activity is conducted, or where records must be kept under the conditions of this permit;
- (b) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, have access to and copy any records that must be kept under the conditions of this permit;
- (c) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, inspect any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit;
- (d) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, sample or monitor substances or parameters for the purpose of assuring compliance with this permit or applicable requirements; and
- (e) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, utilize any photographic, recording, testing, monitoring, or other equipment for the purpose of assuring compliance with this permit or applicable requirements.

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

- (a) The Permittee must comply with the requirements of 326 IAC 2-7-11 whenever the Permittee seeks a permit revision reflecting a change to the ownership or operational control of the source and no other change in the permit is necessary.
- (b) Any application to revise the permit to reflect a change in the ownership or operational control of the source shall contain a written agreement containing a specific date for transfer of permit responsibility, coverage and liability between the current and new Permittee. The application shall be submitted to:

Indiana Department of Environmental Management
Permit Administration and Support Section, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

Any such application does require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35).

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

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

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

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

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

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SECTION C

SOURCE OPERATION CONDITIONS

Entire Source

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

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

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

C.2 Opacity [326 IAC 5-1]

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

- (a) Opacity shall not exceed an average of forty percent (40%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.
- (b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

C.3 Open Burning [326 IAC 4-1][IC 13-17-9]

The Permittee shall not open burn any material except as provided in 326 IAC 4-1-3, 326 IAC 4-1-4 or 326 IAC 4-1-6. The previous sentence notwithstanding, the Permittee may open burn in accordance with an open burning approval issued by the Commissioner under 326 IAC 4-1-4.1.

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

The Permittee shall not operate an incinerator except as provided in 326 IAC 4-2 or in this permit. The Permittee shall not operate a refuse incinerator or refuse burning equipment except as provided in 326 IAC 9-1-2 or in this permit.

C.5 Fugitive Dust Emissions [326 IAC 6-4]

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

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

Pursuant to 326 IAC 6-5 (Fugitive Particulate Matter Emission Limitations), fugitive particulate matter emissions shall be controlled according to the attached plan as in Attachment A. The provisions of 326 IAC 6-5 are not federally enforceable.

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

The Permittee shall comply with the applicable provisions of 326 IAC 1-7 (Stack Height Provisions), for all exhaust stacks through which a potential (before controls) of twenty-five (25) tons per year or more of particulate matter or sulfur dioxide is emitted. The provisions of 326 IAC 1-7-1(3), 326 IAC 1-7-2, 326 IAC 1-7-3(c) and (d), 326 IAC 1-7-4, and 326 IAC 1-7-5(a), (b), and (d) are not federally enforceable.

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C.8 Asbestos Abatement Projects [326 IAC 14-10][326 IAC 18][40 CFR 61, Subpart M]

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

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

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

- (a) For performance testing required by this permit, a test protocol, except as provided elsewhere in this permit, shall be submitted to:

Indiana Department of Environmental Management
Compliance and Enforcement Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

no later than thirty-five (35) days prior to the intended test date. The protocol submitted by the Permittee does not require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35).

- (b) The Permittee shall notify IDEM, OAQ of the actual test date at least fourteen (14) days prior to the actual test date. The notification submitted by the Permittee does not require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35).
- (c) Pursuant to 326 IAC 3-6-4(b), all test reports must be received by IDEM, OAQ not later than forty-five (45) days after the completion of the testing. An extension may be granted by IDEM, OAQ if the Permittee submits to IDEM, OAQ a reasonable written explanation not later than five (5) days prior to the end of the initial forty-five (45) day period.

Compliance Requirements [326 IAC 2-1.1-11]

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

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

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

C.11 Compliance Monitoring [326 IAC 2-7-5(3)][326 IAC 2-7-6(1)][40 CFR 64][326 IAC 3-8]

- (a) For new units:
Unless otherwise specified in the approval for the new emission unit(s), compliance monitoring for new emission units shall be implemented on and after the date of initial start-up.
- (b) For existing units:
Unless otherwise specified in this permit, for all monitoring requirements not already legally required, the Permittee shall be allowed up to ninety (90) days from the date of permit issuance to begin such monitoring. If, due to circumstances beyond the Permittee's control, any monitoring equipment required by this permit cannot be installed and operated no later than ninety (90) days after permit issuance, the Permittee may extend the compliance schedule related to the equipment for an additional ninety (90) days provided the Permittee notifies:

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Indiana Department of Environmental Management
Compliance and Enforcement Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

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

The notification which shall be submitted by the Permittee does require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35).

- (c) For monitoring required by CAM, at all times, the Permittee shall maintain the monitoring, including but not limited to, maintaining necessary parts for routine repairs of the monitoring equipment.
- (d) For monitoring required by CAM, except for, as applicable, monitoring malfunctions, associated repairs, and required quality assurance or control activities (including, as applicable, calibration checks and required zero and span adjustments), the Permittee shall conduct all monitoring in continuous operation (or shall collect data at all required intervals) at all times that the pollutant-specific emissions unit is operating. Data recorded during monitoring malfunctions, associated repairs, and required quality assurance or control activities shall not be used for purposes of this part, including data averages and calculations, or fulfilling a minimum data availability requirement, if applicable. The owner or operator shall use all the data collected during all other periods in assessing the operation of the control device and associated control system. A monitoring malfunction is any sudden, infrequent, not reasonably preventable failure of the monitoring to provide valid data. Monitoring failures that are caused in part by poor maintenance or careless operation are not malfunctions.

C.12 Instrument Specifications [326 IAC 2-1.1-11][326 IAC 2-7-5(3)][326 IAC 2-7-6(1)]

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

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

C.13 Emergency Reduction Plans [326 IAC 1-5-2][326 IAC 1-5-3]

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

- (a) The Permittee shall maintain the most recently submitted written emergency reduction plans (ERPs) consistent with safe operating procedures.
- (b) Upon direct notification by IDEM, OAQ that a specific air pollution episode level is in effect, the Permittee shall immediately put into effect the actions stipulated in the approved ERP for the appropriate episode level. [326 IAC 1-5-3]

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C.14 Risk Management Plan [326 IAC 2-7-5(11)][40 CFR 68]

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

C.15 Response to Excursions or Exceedances [40 CFR 64][326 IAC 3-8][326 IAC 2-7-5][326 IAC 2-7-6]

- (I) Upon detecting an excursion where a response step is required by the D Section, or an exceedance of a limitation, not subject to CAM, in this permit:
 - (a) The Permittee shall take reasonable response steps to restore operation of the emissions unit (including any control device and associated capture system) to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing excess emissions.
 - (b) The response shall include minimizing the period of any startup, shutdown or malfunction. The response may include, but is not limited to, the following:
 - (1) initial inspection and evaluation;
 - (2) recording that operations returned or are returning to normal without operator action (such as through response by a computerized distribution control system); or
 - (3) any necessary follow-up actions to return operation to normal or usual manner of operation.
 - (c) A determination of whether the Permittee has used acceptable procedures in response to an excursion or exceedance will be based on information available, which may include, but is not limited to, the following:
 - (1) monitoring results;
 - (2) review of operation and maintenance procedures and records; and/or
 - (3) inspection of the control device, associated capture system, and the process.
 - (d) Failure to take reasonable response steps shall be considered a deviation from the permit.
 - (e) The Permittee shall record the reasonable response steps taken.
- (II)
 - (a) *CAM Response to excursions or exceedances.*
 - (1) Upon detecting an excursion or exceedance, subject to CAM, the Permittee shall restore operation of the pollutant-specific emissions unit (including the control device and associated capture system) to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions. The response shall include minimizing the period of any startup, shutdown or malfunction and taking any necessary corrective actions to restore normal operation and prevent the likely recurrence of the cause of an excursion or exceedance (other than those caused by excused startup or shutdown conditions). Such actions may include initial inspection and evaluation, recording that operations returned to normal

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without operator action (such as through response by a computerized distribution control system), or any necessary follow-up actions to return operation to within the indicator range, designated condition, or below the applicable emission limitation or standard, as applicable.

- (2) Determination of whether the Permittee has used acceptable procedures in response to an excursion or exceedance will be based on information available, which may include but is not limited to, monitoring results, review of operation and maintenance procedures and records, and inspection of the control device, associated capture system, and the process.
- (b) If the Permittee identifies a failure to achieve compliance with an emission limitation, subject to CAM, or standard, subject to CAM, for which the approved monitoring did not provide an indication of an excursion or exceedance while providing valid data, or the results of compliance or performance testing document a need to modify the existing indicator ranges or designated conditions, the Permittee shall promptly notify the IDEM, OAQ and, if necessary, submit a proposed permit modification to this permit to address the necessary monitoring changes. Such a modification may include, but is not limited to, reestablishing indicator ranges or designated conditions, modifying the frequency of conducting monitoring and collecting data, or the monitoring of additional parameters.
- (c) Based on the results of a determination made under paragraph (II)(a)(2) of this condition, the EPA or IDEM, OAQ may require the Permittee to develop and implement a Quality Improvement Plan (QIP). The Permittee shall develop and implement a QIP if notified to in writing by the EPA or IDEM, OAQ.
- (d) Elements of a QIP:
The Permittee shall maintain a written QIP, if required, and have it available for inspection. The plan shall conform to 40 CFR 64.8 b (2).
- (e) If a QIP is required, the Permittee shall develop and implement a QIP as expeditiously as practicable and shall notify the IDEM, OAQ if the period for completing the improvements contained in the QIP exceeds 180 days from the date on which the need to implement the QIP was determined.
- (f) Following implementation of a QIP, upon any subsequent determination pursuant to paragraph (II)(c) of this condition the EPA or the IDEM, OAQ may require that the Permittee make reasonable changes to the QIP if the QIP is found to have:
 - (1) Failed to address the cause of the control device performance problems; or
 - (2) Failed to provide adequate procedures for correcting control device performance problems as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions.
- (g) Implementation of a QIP shall not excuse the Permittee from compliance with any existing emission limitation or standard, or any existing monitoring, testing, reporting or recordkeeping requirement that may apply under federal, state, or local law, or any other applicable requirements under the Act.
- (h) *CAM recordkeeping requirements.*
 - (1) The Permittee shall maintain records of monitoring data, monitor performance data, corrective actions taken, any written quality

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improvement plan required pursuant to paragraph (II)(c) of this condition and any activities undertaken to implement a quality improvement plan, and other supporting information required to be maintained under this condition (such as data used to document the adequacy of monitoring, or records of monitoring maintenance or corrective actions). Section C - General Record Keeping Requirements of this permit contains the Permittee's obligations with regard to the records required by this condition.

- (2) Instead of paper records, the owner or operator may maintain records on alternative media, such as microfilm, computer files, magnetic tape disks, or microfiche, provided that the use of such alternative media allows for expeditious inspection and review, and does not conflict with other applicable recordkeeping requirements

C.16 Actions Related to Noncompliance Demonstrated by a Stack Test [326 IAC 2-7-5][326 IAC 2-7-6]

- (a) When the results of a stack test performed in conformance with Section C - Performance Testing, of this permit exceed the level specified in any condition of this permit, the Permittee shall submit a description of its response actions to IDEM, OAQ no later than seventy-five (75) days after the date of the test.
- (b) A retest to demonstrate compliance shall be performed no later than one hundred eighty (180) days after the date of the test. Should the Permittee demonstrate to IDEM, OAQ that retesting in one hundred eighty (180) days is not practicable, IDEM, OAQ may extend the retesting deadline.
- (c) IDEM, OAQ reserves the authority to take any actions allowed under law in response to noncompliant stack tests.

The response action documents submitted pursuant to this condition do require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35).

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

C.17 Emission Statement [326 IAC 2-7-5(3)(C)(iii)][326 IAC 2-7-5(7)][326 IAC 2-7-19(c)][326 IAC 2-6]

Pursuant to 326 IAC 2-6-3(a)(1), the Permittee shall submit by July 1 of each year an emission statement covering the previous calendar year. The emission statement shall contain, at a minimum, the information specified in 326 IAC 2-6-4(c) and shall meet the following requirements:

- (1) Indicate estimated actual emissions of all pollutants listed in 326 IAC 2-6-4(a);
- (2) Indicate estimated actual emissions of regulated pollutants as defined by 326 IAC 2-7-1(33) ("Regulated pollutant, which is used only for purposes of Section 19 of this rule") from the source, for purpose of fee assessment.

The statement must be submitted to:

Indiana Department of Environmental Management
Technical Support and Modeling Section, Office of Air Quality
100 North Senate Avenue
MC 61-50 IGCN 1003
Indianapolis, Indiana 46204-2251

The emission statement does require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35).

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C.18 General Record Keeping Requirements [326 IAC 2-7-5(3)][326 IAC 2-7-6][326 IAC 2-2]

- (a) Records of all required monitoring data, reports and support information required by this permit shall be retained for a period of at least five (5) years from the date of monitoring sample, measurement, report, or application. Support information includes the following, where applicable:

- (1) All calibration and maintenance records.
- (2) All original strip chart recordings for continuous monitoring instrumentation.
- (3) Copies of all reports required by the Part 70 permit.

Records of required monitoring information include the following, where applicable:

- (1) The date, place, as defined in this permit, and time of sampling or measurements.
- (2) The dates analyses were performed.
- (3) The company or entity that performed the analyses.
- (4) The analytical techniques or methods used.
- (5) The results of such analyses.
- (6) The operating conditions as existing at the time of sampling or measurement.

These records shall be physically present or electronically accessible at the source location for a minimum of three (3) years. The records may be stored elsewhere for the remaining two (2) years as long as they are available upon request. If the Commissioner makes a request for records to the Permittee, the Permittee shall furnish the records to the Commissioner within a reasonable time.

- (b) Unless otherwise specified in this permit, for all record keeping requirements not already legally required, the Permittee shall be allowed up to ninety (90) days from the date of permit issuance or the date of initial start-up, whichever is later, to begin such record keeping.
- (c) If there is a reasonable possibility (as defined in 326 IAC 2-2-8 (b)(6)(A), 326 IAC 2-2-8 (b)(6)(B), 326 IAC 2-3-2 (l)(6)(A), and/or 326 IAC 2-3-2 (l)(6)(B)) that a "project" (as defined in 326 IAC 2-2-1(oo) and/or 326 IAC 2-3-1(jj)) at an existing emissions unit, other than projects at a source with a Plantwide Applicability Limitation (PAL), which is not part of a "major modification" (as defined in 326 IAC 2-2-1(dd) and/or 326 IAC 2-3-1(y)) may result in significant emissions increase and the Permittee elects to utilize the "projected actual emissions" (as defined in 326 IAC 2-2-1(pp) and/or 326 IAC 2-3-1(kk)), the Permittee shall comply with following:

- (1) Before beginning actual construction of the "project" (as defined in 326 IAC 2-2-1(oo) and/or 326 IAC 2-3-1(jj)) at an existing emissions unit, document and maintain the following records:
 - (A) A description of the project.
 - (B) Identification of any emissions unit whose emissions of a regulated new source review pollutant could be affected by the project.
 - (C) A description of the applicability test used to determine that the project is not a major modification for any regulated NSR pollutant, including:
 - (i) Baseline actual emissions;
 - (ii) Projected actual emissions;

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- (iii) Amount of emissions excluded under section 326 IAC 2-2-1(pp)(2)(A)(iii) and/or 326 IAC 2-3-1 (kk)(2)(A)(iii); and
 - (iv) An explanation for why the amount was excluded, and any netting calculations, if applicable.
- (d) If there is a reasonable possibility (as defined in 326 IAC 2-2-8 (b)(6)(A) and/or 326 IAC 2-3-2 (l)(6)(A)) that a "project" (as defined in 326 IAC 2-2-1(oo) and/or 326 IAC 2-3-1(jj)) at an existing emissions unit, other than projects at a source with a Plantwide Applicability Limitation (PAL), which is not part of a "major modification" (as defined in 326 IAC 2-2-1(dd) and/or 326 IAC 2-3-1(y)) may result in significant emissions increase and the Permittee elects to utilize the "projected actual emissions" (as defined in 326 IAC 2-2-1(pp) and/or 326 IAC 2-3-1(kk)), the Permittee shall comply with following:
 - (1) Monitor the emissions of any regulated NSR pollutant that could increase as a result of the project and that is emitted by any existing emissions unit identified in (1)(B) above; and
 - (2) Calculate and maintain a record of the annual emissions, in tons per year on a calendar year basis, for a period of five (5) years following resumption of regular operations after the change, or for a period of ten (10) years following resumption of regular operations after the change if the project increases the design capacity of or the potential to emit that regulated NSR pollutant at the emissions unit.

C.19 General Reporting Requirements [326 IAC 2-7-5(3)(C)][326 IAC 2-1.1-11][326 IAC 2-2][40 CFR 64][326 IAC 3-8]

-
- (a) The Permittee shall submit the attached Quarterly Deviation and Compliance Monitoring Report or its equivalent. Proper notice submittal under Section B.11–Emergency Provisions satisfies the reporting requirements of this paragraph. Any deviation from permit requirements, the date(s) of each deviation, the cause of the deviation, and the response steps taken must be reported except that a deviation required to be reported pursuant to an applicable requirement that exists independent of this permit, shall be reported according to the schedule stated in the applicable requirement and does not need to be included in this report. This report shall be submitted not later than thirty (30) days after the end of the reporting period. The Quarterly Deviation and Compliance Monitoring Report shall include a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35). A deviation is an exceedance of a permit limitation or a failure to comply with a requirement of the permit.

On and after the date by which the Permittee must use monitoring that meets the requirements of 40 CFR Part 64 and 326 IAC 3-8, the Permittee shall submit CAM reports to the IDEM, OAQ.

A report for monitoring under 40 CFR Part 64 and 326 IAC 3-8 shall include, at a minimum, the information required under paragraph (a) of this condition and the following information, as applicable:

 - (1) Summary information on the number, duration and cause (including unknown cause, if applicable) of excursions or exceedances, as applicable, and the corrective actions taken;
 - (2) Summary information on the number, duration and cause (including unknown cause, if applicable) for monitor downtime incidents (other than downtime associated with zero and span or other daily calibration checks, if applicable); and

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- (3) A description of the actions taken to implement a QIP during the reporting period as specified in Section C.15-Response to Excursions or Exceedances. Upon completion of a QIP, the owner or operator shall include in the next summary report documentation that the implementation of the plan has been completed and reduced the likelihood of similar levels of excursions or exceedances occurring.

The Permittee may combine the Quarterly Deviation and Compliance Monitoring Report and a report pursuant to 40 CFR 64 and 326 IAC 3-8.

- (b) The address for report submittal is:

Indiana Department of Environmental Management
Compliance and Enforcement Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

- (c) Unless otherwise specified in this permit, any notice, report, or other submission required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ on or before the date it is due.
- (d) Reporting periods are based on calendar years, unless otherwise specified in this permit. For the purpose of this permit "calendar year" means the twelve (12) month period from January 1 to December 31 inclusive.
- (e) If the Permittee is required to comply with the recordkeeping provisions of (d) in Section C.18 - General Record Keeping Requirements for any "project" (as defined in 326 IAC 2-2-1 (oo) and/or 326 IAC 2-3-1 (jj)) at an existing emissions unit, and the project meets the following criteria, then the Permittee shall submit a report to IDEM, OAQ:
 - (1) The annual emissions, in tons per year, from the project identified in (c)(1) in Section C.18 - General Record Keeping Requirements exceed the baseline actual emissions, as documented and maintained under Section C- General Record Keeping Requirements (c)(1)(C)(i), by a significant amount, as defined in 326 IAC 2-2-1 (ww) and/or 326 IAC 2-3-1 (pp), for that regulated NSR pollutant, and
 - (2) The emissions differ from the preconstruction projection as documented and maintained under Section C.18 - General Record Keeping Requirements (c)(1)(C)(ii).
- (f) The report for a "project" at an existing emissions unit shall be submitted no later than sixty (60) days after the end of the year and contain the following:
 - (1) The name, address, and telephone number of the major stationary source.
 - (2) The annual emissions calculated in accordance with (d)(1) and (2) in Section C.18 - General Record Keeping Requirements.
 - (3) The emissions calculated under the actual-to-projected actual test stated in 326 IAC 2-2-2(d)(3) and/or 326 IAC 2-3-2(c)(3).

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- (4) Any other information that the Permittee wishes to include in this report such as an explanation as to why the emissions differ from the preconstruction projection.

Reports required in this part shall be submitted to:

Indiana Department of Environmental Management
Compliance and Enforcement Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

- (g) The Permittee shall make the information required to be documented and maintained in accordance with (c) in Section C.18 - General Record Keeping Requirements available for review upon a request for inspection by IDEM, OAQ. The general public may request this information from the IDEM, OAQ under 326 IAC 17.1.

Stratospheric Ozone Protection

C.20 Compliance with 40 CFR 82 and 326 IAC 22-1

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

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SECTION D.0 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description: Entire Source HAP Limitation

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

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

D.0.1 HAP Minor Limitation [40 CFR 63.1]

To ensure the Permittee meets the definition of an area source under 40 CFR 63.2, the Permittee shall comply with the following:

- (a) Source wide total HAP emissions shall be less than twenty-five (25) tons per twelve (12) consecutive month period with compliance determined at the end of each month.
- (b) Source-wide chromium HAP emissions shall be less than ten (10) tons per twelve (12) consecutive month period with compliance determined at the end of each month.
- (c) Source-wide manganese HAP emissions shall be less than ten (10) tons per twelve (12) consecutive month period with compliance determined at the end of each month.
- (d) Source wide Ethylbenzene HAP emissions shall be less than ten (10) tons per twelve (12) consecutive month period, with the compliance determined at the end of each month.
- (e) Source wide Glycol Ethers HAP emissions shall be less than ten (10) tons per twelve (12) consecutive month period, with compliance determined at the end of each month.
- (f) Source wide Isophorone HAP emissions shall be less than ten (10) tons per twelve (12) consecutive month period, with compliance determined at the end of each month.
- (g) Source wide Xylene HAP emissions shall be less than ten (10) tons per twelve (12) consecutive month period, with compliance determined at the end of each month.
- (h) Source wide Naphthalene HAP emissions shall be less than ten (10) tons per twelve (12) consecutive month period, with compliance determined at the end of each month.

Compliance with these limits shall limit the HAP emissions from the entire source to less than ten (10) tons of any single HAP and less than twenty-five (25) tons of total HAPs per twelve (12) consecutive month period, respectively, and the entire source is rendered an area source of HAP Emissions under Section 112 of the Clean Air Act (CAA).

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

D.0.2 Hazardous Air Pollutants

In order to demonstrate compliance with Condition D.0.1 - HAP Minor Limitation, the Permittee shall use the following equations:

$$\begin{aligned} \text{(a) Chromium(total)} = & \{ [(\text{RHF Stack 40}_{\text{CHROMIUM}} + \text{RHF Stack 77}_{\text{CHROMIUM}}) \times \text{RHF}_{\text{HOURS}}] \\ & + [(\text{SAF Stack 58}_{\text{CHROMIUM}} \times \text{SAF}_{\text{HOURS}})] \\ & + [(\text{IDD}_{\text{CHROMIUM CONSTANT}}) \times (\text{hours each month})] \\ & + [(\text{FR}_{\text{CHROMIUM CONSTANT}}) \times (\text{hours each month})] \} \\ & / 2,000 \text{ (lb/ton)} \end{aligned}$$

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- (b)
$$\text{Manganese(total)} = \left\{ \left[\left(\text{RHF Stack 40}_{\text{MANGANESE}} + \text{RHF Stack 77}_{\text{MANGANESE}} \right) \times \text{RHF}_{\text{HOURS}} \right] + \left[\left(\text{SAF Stack 58}_{\text{MANGANESE}} \times \text{SAF}_{\text{HOURS}} \right) \right] + \left[\left(\text{IDD}_{\text{MANGANESE CONSTANT}} \right) \times (\text{hours each month}) \right] + \left[\left(\text{FR}_{\text{MANGANESE CONSTANT}} \right) \times (\text{hours each month}) \right] \right\} / 2,000 \text{ (lb/ton)}$$
- (c)
$$\text{Ethylbenzene(total)} = (PL_{\text{ETHYLEBENZENE}}) / 2,000 \text{ (lb/ton)}$$
- (d)
$$\text{Glycol Ethers(total)} = (PL_{\text{GLYCOL ETHERS}}) / 2,000 \text{ (lb/ton)}$$
- (e)
$$\text{Isophorone(total)} = (PL_{\text{ISOPHORONE}}) / 2,000 \text{ (lb/ton)}$$
- (f)
$$\text{Naphthalene(total)} = \left\{ \left[\left(\text{IDD}_{\text{NAPHTHALENE CONSTANT}} \right) \times (\text{hours each month}) \right] + (PL_{\text{NAPHTHALENE}}) + \left[\left(\text{FR}_{\text{NAPHTHALENE CONSTANT}} \right) \times (\text{hours each month}) \right] \right\} / 2,000 \text{ (lb/ton)}$$
- (g)
$$\text{Xylene(total)} = \left\{ \left[\left(\text{IDD}_{\text{XYLENE CONSTANT}} \right) \times (\text{hours each month}) \right] + (PL_{\text{XYLENE}}) + \left[\left(\text{FR}_{\text{XYLENE CONSTANT}} \right) \times (\text{hours each month}) \right] \right\} / 2,000 \text{ (lb/ton)}$$
- (h)
$$\begin{aligned} \text{HAPS(total)} = & \left\{ \left[\left(\text{IDD}_{\text{HAPS CONSTANT}} \right) \times (\text{hours each month}) \right] \right. \\ & + \left[\left(\text{RHF Stack 40}_{\text{CHROMIUM}} + \text{RHF Stack 77}_{\text{CHROMIUM}} + \text{RHF Stack 40}_{\text{MANGANESE}} + \text{RHF Stack 77}_{\text{MANGANESE}} \right) \times \text{RHF}_{\text{HOURS}} \right] \\ & + \left[\left(\text{SAF Stack 58}_{\text{CHROMIUM}} + \text{SAF Stack 58}_{\text{MANGANESE}} \right) \times \text{SAF}_{\text{HOURS}} \right] \\ & + (PL_{\text{HAPS}}) \\ & + (\text{Pickle}_{\text{HCl}} \times \text{Pickle}_{\text{HOURS}}) \\ & + (\text{Pickle2}_{\text{HCl}} \times \text{Pickle2}_{\text{HOURS}}) \left. \right\} \\ & + \left[\left(\text{FR}_{\text{HAPS CONSTANT}} \right) \times (\text{hours each month}) \right] \left. \right\} / 2,000 \text{ (lb/ton)} \end{aligned}$$

Where:

Note: *Italic* font represents emissions associated with SDI - Flat Roll Division (Plt ID: 033-00043).

Total HAPs Emissions:

PL_{HAPS} = total haps (lb/month) from the paint line as determined in Condition D.10.10 - Volatile organic Compounds (VOC) and Hazardous Air Pollutants (HAP) of this permit.

$\text{IDD}_{\text{HAPS CONSTANT}}$ = 0.74 total HAPs (lb/hr), or a value stated in Condition D.0.3 - Hazardous Air Pollutants of the latest Operating Permit issued to Steel Dynamics, Inc. - Iron Dynamic Division (plt. ID 033-00076), whichever is greater.

$\text{Pickle}_{\text{HCl}}$ = HCl emissions (pound per hour) from the most recent valid compliance demonstration for the pickling line Stack 17.

$\text{Pickle2}_{\text{HCl}}$ = HCl emissions in (pound per hour) from the most recent valid compliance demonstration for Pickling Line 2 Stack Pickle 2. Until an initial stack test is performed $\text{Pickle2}_{\text{HCl}} = 0.32 \text{ lb/hr}$.

$\text{FR}_{\text{HAPS CONSTANT}}$ = 0.194 total HAPs (lb/hr)

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Chromium Emissions:

RHF Stack 40_{CHROMIUM} = chromium emissions (lb/hr) from the rotary hearth furnace Stack 40 as determined in Condition D.0.3 - Hazardous Air Pollutants of the latest Operating Permit issued to Steel Dynamics, Inc. - Iron Dynamic Division (plt. ID 033-00076).

RHF Stack 77_{CHROMIUM} = chromium emissions (lb/hr) from the rotary hearth furnace fugitive emissions and briquetter baghouses Stack 77 as determined in Condition D.0.3 - Hazardous Air Pollutants of the latest Operating Permit issued to Steel Dynamics, Inc. - Iron Dynamic Division (plt. ID 033-00076).

SAF Stack 58_{CHROMIUM} = chromium emissions (lb/hr) from the submerged arc furnace Stack 58 as determined in Condition D.0.3 - Hazardous Air Pollutants of the latest Operating Permit issued to Steel Dynamics, Inc. - Iron Dynamic Division (plt. ID 033-00076).

IDD_{CHROMIUM CONSTANT} = 3.17E-03 Chromium (lb/hr), or a value stated in Condition D.0.3 - Hazardous Air Pollutants of the latest Operating Permit issued to Steel Dynamics, Inc. - Iron Dynamic Division (plt. ID 033-00076), whichever is greater.

$FR_{CHROMIUM\ CONSTANT} = 2.24E-03$ Chromium (lb/hr)

Manganese Emissions:

RHF Stack 40_{MANGANESE} = manganese emissions (lb/hr) from the rotary hearth furnace Stack 40 as determined in Condition D.0.3 - Hazardous Air Pollutants of the latest Operating Permit issued to Steel Dynamics, Inc. - Iron Dynamic Division (plt. ID 033-00076).

RHF Stack 77_{MANGANESE} = manganese emissions (lb/hr) from the rotary hearth furnace fugitive emissions and briquetter baghouses Stack 77 as determined in Condition D.0.3 - Hazardous Air Pollutants of the latest Operating Permit issued to Steel Dynamics, Inc. - Iron Dynamic Division (plt. ID 033-00076).

SAF Stack 58_{MANGANESE} = manganese emissions (lb/hr) from the submerged arc furnace Stack 58 as determined in Condition D.0.3 - Hazardous Air Pollutants of the latest Operating Permit issued to Steel Dynamics, Inc. - Iron Dynamic Division (plt. ID 033-00076).

IDD_{MANGANESE CONSTANT} = 0.16 Manganese (lb/hr), or a value stated in Condition D.0.3 - Hazardous Air Pollutants of the latest Operating Permit issued to Steel Dynamics, Inc. - Iron Dynamic Division (plt. ID 033-00076), whichever is greater.

$FR_{MANGANESE\ CONSTANT} = 0.121$ Manganese (lb/hr)

Naphthalene Emissions:

$PL_{NAPHTHALENE}$ = Naphthalene (lb/month) as determined in Condition D.10.10 - Volatile organic Compounds (VOC) and Hazardous Air Pollutants (HAP).

IDD_{NAPHTHALENE CONSTANT} = 4.27E-05 Naphthalene (lb/hr), or a value stated in Condition D.0.3 - Hazardous Air Pollutants of the latest Operating Permit issued to

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Steel Dynamics, Inc. - Iron Dynamic Division (plt. ID 033-00076), whichever is greater.

$$FR_{NAPHTHALENE\ CONSTANT} = 4.41E-04 \text{ Naphthalene (lb/hr)}$$

Xylene Emissions:

PL_{XYLENE} = Xylene (lb/month) as determined in Condition D.10.10 - Volatile organic Compounds (VOC) and Hazardous Air Pollutants (HAP).

$IDD_{XYLENE\ CONSTANT}$ = 8.81E-05 Xylene (lb/hr), or a value stated in Condition D.0.3 - Hazardous Air Pollutants of the latest Operating Permit issued to Steel Dynamics, Inc. - Iron Dynamic Division (plt. ID 033-00076), whichever is greater.

$$FR_{XYLENE\ CONSTANT} = 1.60E-04 \text{ Xylene (lb/hr)}$$

Ethylbenzene Emissions:

$PL_{ETHYLEBENZENE}$ = Ethylbenzene (lb/month) as determined in Condition D.10.10 - Volatile organic Compounds (VOC) and Hazardous Air Pollutants (HAP).

Glycol Ethers Emissions:

$PL_{GLYCOL\ ETHERS}$ = Glycol Ethers (lb/month) as determined in Condition D.10.10 - Volatile organic Compounds (VOC) and Hazardous Air Pollutants (HAP).

Isophorone Emissions:

$PL_{ISOPHORONE}$ = Isophorone (lb/month) as determined in Condition D.10.10 - Volatile organic Compounds (VOC) and Hazardous Air Pollutants (HAP).

Hours of Operations Emissions:

Hours each month = hours in each reporting month;
e.g., June (30 days x 24 hrs/day) = 720 hrs/month

RHF_{HOURS} = Hours of RHF operation for the reporting month.

SAF_{HOURS} = Hours of SAF operation for the reporting month.

$Pickle_{HOURS}$ = Hours of Pickle line operation for the reporting month.

$Pickle2_{HOURS}$ = Hours of Pickle 2 line operation for the reporting month.

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

D.0.3 Record Keeping Requirements

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- (a) To document the compliance status with Conditions D.0.1 – HAP Minor Limitation and D.0.2 – Hazardous Air Pollutants, the Permittee shall maintain records in accordance with (1) through (19) below. Records maintained for (1) through (19) shall be complete and sufficient to establish compliance with the emission limits established in Condition D.0.1.

- (1) Calendar dates covered in the compliance determination period.
- (2) Monthly records of the HAPs(total) emissions.

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- (3) Monthly records of the Chromium(total) emissions.
 - (4) Monthly records of the Manganese(total) emissions.
 - (5) Monthly records of the Ethylbenzene (total) emissions.
 - (6) Monthly records of the Glycol Ethers (total) emissions.
 - (7) Monthly records of the Isophorone (total) emissions.
 - (8) Monthly records of the Xylene (total) emissions.
 - (9) Monthly records of the Naphthalene (total) emissions.
 - (10) Monthly records of the total haps emissions from the Paint Line 1.
 - (11) RESERVED
 - (12) The RHF Stack 40CHROMIUM value used in the calculations in Condition D.0.2 – Hazardous Air Pollutants.
 - (13) The RHF Stack 40MANGANESE value used in the calculations in Condition D.0.2 – Hazardous Air Pollutants.
 - (14) The RHF Stack 77CHROMIUM value used in the calculations in Condition D.0.2 – Hazardous Air Pollutants.
 - (15) The RHF Stack 77MANGANESE value used in the calculations in Condition D.0.2 – Hazardous Air Pollutants.
 - (16) The SAF Stack 58CHROMIUM value used in the calculations in Condition D.0.2 – Hazardous Air Pollutants.
 - (17) The SAF Stack 58MANGANESE value used in the calculations in Condition D.0.2 – Hazardous Air Pollutants.
 - (18) The RHFhours value used in the calculations in Condition D.0.3 - Hazardous Air Pollutants.
 - (19) The SAFhours value used in the calculations in Condition D.0.3 - Hazardous Air Pollutants.
- (b) Section C.19 - General Record Keeping Requirements contains the Permittee's obligations with regard to the records required by this condition.

D.0.4 Reporting Requirements

A quarterly summary of the information to document the compliance status with Condition D.0.1 – HAP Minor Limitation shall be submitted not later than thirty (30) days after the end of the quarter being reported. Section C.19- General Reporting Requirements contains the Permittee's obligations with regard to the reporting required by this condition. The report submitted by the Permittee does require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35).

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SECTION D.1

EMISSIONS UNIT OPERATION CONDITIONS (MELT SHOP)

Emissions Unit Description:

Melt Shop Operations

(a) Electric Arc Furnaces (EAF)

Two (2) twin shell electric arc furnaces (EAF #1 South, permitted in 1994 for construction and EAF #2 North, permitted in 1997 for construction), each with a nominal capacity of 200 tons per hour, using a direct shell evacuation (DSE) system ("fourth hole" duct), an overhead roof exhaust system consisting of canopy hoods, DSE air gap for carbon monoxide (CO) emissions control, and low-NO_x/oxyfuel burners (combustion control) for nitrogen oxide (NO_x) emissions control. Particulate emissions from EAF #2 North are controlled by EAF Baghouse 2. All emissions from EAF #2 North exhaust to Stack 92. Particulate emissions from EAF #1 South are controlled by EAF Baghouse 1. All emissions from EAF #1 South exhaust to Stack 01.

(b) Continuous Casters

Two (2) continuous casters (CC #1 South, permitted in 1994 for construction and CC #2 North, permitted in 1997 for construction), each with a nominal capacity of 225 tons per hour. Particulate matter (PM/PM10) emissions are captured by canopy hoods over each caster exhausting to the EAF baghouse through Stack 01.

(c) Miscellaneous natural gas combustion sources

- (1) Two (2) ladle dryout station (LDS), with a nominal heat input of 10 MMBtu per hour, permitted in 1994 for construction;
- (2) Five (5) ladle preheat stations (LPS), with a nominal heat input of 10 MMBtu per hour each, three (3) permitted in 1994 and one (1) permitted in 1995 for construction;
- (3) Three (3) natural gas fired tundish ladle dryers with a nominal heat input capacity of 1.5 MMBtu per hour each, one (1) permitted in 1994 and two (2) permitted in 1995 for construction;
- (4) Two (2) natural gas-fired tundish preheaters with a nominal heat input capacity of 9.4 MMBtu per hour each, permitted in 1994 for construction; and
- (5) Lancing and cutting of skulls, coils and steel scrap.

(d) Storage Silos and Bins

- (1) Twenty - two (22) storage silos including the following:
 - (A) Three (3) EAF dust silos consisting of:
 - (i) Bin vent 5a for particulate matter control permitted in 1994 for construction,
 - (ii) Bin vent 5b for particulate matter control permitted in 1997 for construction and

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- (iii) Bin vent 5c for particulate matter control, permitted in 2007 for construction.
- (B) Six (6) Lime/carbon silos with bin vents 22 through 27 for particulate matter control, permitted in 1994 and 1997 for construction, and
- (C) Two (2) LMF lime silos, permitted in 1997 for construction, with emissions controlled by bin vents, and exhausting outside.
- (D) Two (2) alloy silos with bin vents 28 and 29 for particulate matter control, permitted in 1994 for construction.
- (E) One (1) carbon injection silo, permitted in 1997 for construction, with emissions controlled by bin vents, exhausting through Stack 46.
- (F) One (1) carbon silo, approved in 2011 for construction, with a nominal throughput of 15 tons per hour, and using bin vent 93 as control.
- (G) One (1) cold mill water treatment silo, constructed in 1997 and permitted in 2015, controlled by bin vent 35, and exhausting to vent 35.
- (H) Six (6) Lime/carbon silos, constructed in 1995 and permitted in 2015, with three (3) silos routed to bin vent 33 for particulate matter control and exhausting through vent 33 and three (3) silos routed to bin vent 34 for particulate matter control and exhausting through vent 34.
- (2) Enclosed, indoor and/or pneumatic conveying to control fugitive emissions.
- (e) Slag pit digouts associated with each electric arc furnace.
- (f) Melt shop building openings, dust handling system and melt shop roof monitors.

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

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

D.1.1 Particulate (PM/PM-10) Limitations - Best Available Control Technology [326 IAC 2-2]

- (a) Pursuant to PSD CP 033-8091-00043, issued June 25, 1997, PSD SSM 033-23028-00043 and 326 IAC 2-2 (PSD - Control Technology Review; Requirements):
 - (1) The PM/PM10 emissions from EAF #1 South shall be controlled by a direct shell evacuation (DSE) system and canopy hood with 100 percent overall capture exhausted to EAF Baghouse 1 with a minimum 99.85 control efficiency for filterable PM/PM10, discharging through Stack 01. A negative pressure shall be maintained to draw particulate matter through the DSE duct. Baghouse 1 shall be operated at all times when the EAF #1 South is in operation.
 - (2) The PM/PM10 emissions from EAF #2 North shall be controlled by a direct shell evacuation (DSE) system and canopy hood with 100 percent overall capture and shall exhaust to EAF Baghouse 2 with a minimum 99.85 control efficiency for filterable PM/PM10, which discharges through Stack 92. A negative pressure

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shall be maintained to draw particulate matter through the DSE duct. Baghouse 2 shall be operated at all times when the EAF #2 North is in operation.

- (3) The PM/PM10 emissions from EAF #2 North and EAF #1 South shall not exceed the limits in the following table:

Unit (Control)	Filterable PM/PM10 Limits		Filterable and Condensable PM10 Limits	
	(gr/dscf)	(lb/hr)	(gr/dscf)	(lb/hr)
EAF #1 South (EAF Baghouse 1)	0.0018	20.1	0.0052	57.9
EAF #2 North (EAF Baghouse 2)	0.0018	15.3	0.0052	44.3

- (b) Pursuant to CP 033-9187-00043, March 24, 1998 and 326 IAC 2-2 (PSD - Control Technology Review Requirements), PM/PM10 emissions from the continuous casters shall be captured by canopy hoods and exhausted to EAF baghouse 1 and then to Stack 01. Baghouse 1 shall be operated at all times when the continuous casters are in operation.
- (c) Pursuant to CP 033-3692-00043, issued October 7, 1994 and 326 IAC 2-2 (PSD Control Technology Review Requirements), the Permittee shall do the following as needed:
- (1) Mechanically reduce skulls, coils and steel scrap in size.
 - (2) Oxygen lancing/cutting of any skulls, coils and steel scrap not mechanically reduced in size shall be conducted inside a building with adequate capture of emissions by a control system and a baghouse to control emissions.
- (d) Pursuant to PSD SSM 033-23028-00076 and 326 IAC 2-2-3 (BACT), the filterable PM/PM10 emissions from EAF dust silo 5c shall not exceed 0.01 grains per dry standard cubic foot (gr/dscf).
- (e) Pursuant to PSD/SSM 033-34498-00043 and 326 IAC 2-2 (BACT):
- (1) The PM/PM₁₀ emissions from the Cold Mill Water Treatment Silo and the six (6) Carbon/Lime Silos (associated with Bin Vents 33 and 34) shall be controlled by a bin vent.
 - (2) The PM (filterable) emissions from the bin vents 33, 34, and 35 controlling the Cold Mill Water Treatment Silo and the six (6) Carbon/Lime Silos (associated with Bin Vents 33 and 34) shall each not exceed 0.01 grains/dscf.
 - (3) The PM₁₀ (filterable and condensable) emissions from the bin vents 33, 34, and 35 controlling the Cold Mill Water Treatment Silo and the six (6) Carbon/Lime Silos (associated with Bin Vents 33 and 34) shall each not exceed 0.01 grains/dscf.

D.1.2 Nitrogen Oxides (NO_x) Limitations - Best Available Control Technology [326 IAC 2-2]

- (a) Pursuant to CP 033-8091-00043, issued June 25, 1997 and 326 IAC 2-2 (PSD - Control Technology Review; Requirements), the total NO_x emissions from the EAF#1 South

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(Stack 01) and EAF#2 North (Stack 92) using low-NOx natural gas fired burners shall not exceed 0.51 pounds per ton of steel produced and 204.0 pounds per hour.

- (b) Pursuant to A 033-4997-00043, issued November 16, 1995 and 326 IAC 2-2 (PSD - Control Technology Review; Requirements), the Ladle Dryout Station (LDS) shall be limited to the use of natural gas, shall not exceed 10 MMBtu per hour heat input and NOx emissions shall not exceed 0.10 lbs/MMBtu.
- (c) Pursuant to A 033-4997-00043, issued November 16, 1995 and 326 IAC 2-2 (PSD - Control Technology Review; Requirements), the four (4) Ladle Preheat Stations (LPS) shall be limited solely to the use of low-NOx natural gas-fired burners. The four (4) horizontal preheater stations combined shall not exceed 40 MMBtu per hour heat input and the NOx emissions shall not exceed 0.14 lbs/MMBtu.
- (d) Pursuant to CP 033-3692-00043, issued October 7, 1994 and 326 IAC 2-2 (PSD -Control Technology Review; Requirements), the three (3) Tundish dryers shall use low-NOx burners. Each burner shall be limited to 1.5 MMBtu per hour heat input and the NOx emissions shall not exceed 0.10 lbs/MMBtu.
- (e) Pursuant to A 033-4997-00043, issued November 16, 1995 and 326 IAC 2-2 (PSD - Control Technology Review; Requirements), the two (2) Tundish Preheaters shall use low-NOx burners. Each burner shall not exceed 9.4 MMBtu per hour heat input and the NOx emissions shall not exceed 0.10 lbs/MMBtu.

D.1.3 Sulfur Dioxide (SO₂) Limitations - Best Available Control Technology [326 IAC 2-2][326 IAC 7-1.1]

- (a) Pursuant to CP 033-9187-00043, issued March 24, 1998 and 326 IAC 2-2 (PSD - Control Technology Review Requirements), the combined SO₂ emissions from the LMF (Stack 61), EAF #1 South (Stack 01) and EAF #2 North (Stack 92) shall not exceed 0.2 pounds per ton of steel produced and 80 pounds of SO₂ per hour.
- (b) Pursuant to CP 033-8091-00043, issued June 24, 1997 and 326 IAC 2-2 (PSD - Control Technology Review Requirements), the SO₂ emissions from the EAFs shall be controlled by the use of high quality scrap and monitoring the sulfur content of the coke.

D.1.4 Carbon Monoxide (CO) Limitations - Best Available Control Technology [326 IAC 2-2]

Pursuant to CP 033-8091-00043, issued June 25, 1997 and 326 IAC 2-2 (PSD - Control Technology Review; Requirements), the CO emissions from EAFs shall be controlled by an adjustment gap between the EAF direct shell evacuation system (DSE) and the remaining water cooled duct to common baghouse. The CO emissions from each EAF shall not exceed 2.0 pounds per ton of hot steel produced. The total emissions from EAF #1 South (Stack 1) and EAF #2 North (Stack 92) shall not exceed 800 pounds per hour. A negative pressure shall be maintained at the gap. The direct shell evacuation system, Baghouse 1, and Baghouse 2 shall be operated at all times when the EAF exhausting to it is in operation.

D.1.5 Volatile Organic Compounds (VOC) Limitations - Best Available Control Technology [326 IAC 2-2][326 IAC 8-1-6]

Pursuant to CP 033-8091-00043, issued June 25, 1997 and 326 IAC 2-2 (PSD - Control Technology Review Requirements):

- (a) VOC emissions from EAFs shall be controlled through a scrap management program. The Permittee shall implement the SMP, which shall be in writing and available for inspection. The SMP shall provide at a minimum:

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- (1) All grades of scrap charged to the furnaces shall not contain excessive non-metallics.
- (2) All grades of scrap shall not contain excessive oil and grease.
- (3) Heavily oiled scrap shall not be used.
- (b) Total VOC emissions from the EAF EAF#1 South (Stack 01) and EAF#2 North (Stack 92) shall be limited to 0.13 pounds of VOC emissions per ton of steel produced and shall not exceed 52.0 pounds per hour.

D.1.6 Lead Limitations - Best Available Control Technology (BACT) [326 IAC 2-2]

Pursuant to CP 033-8091-00043, issued June 25, 1997 and 326 IAC 2-2 (PSD Control Technology Review Requirements), the total lead emissions from EAF Baghouse 1 (Stack 1) and EAF Baghouse 2 (Stack 92) shall not exceed 0.19 pounds per hour.

D.1.7 Mercury PSD Minor Limit [326 IAC 2-2]

The total mercury emissions from EAF Baghouse 1 and EAF Baghouse 2 shall not exceed 0.022 pounds per hour. Compliance with this limit will render 326 IAC 2-2 (Prevention of Significant Deterioration) not applicable to CP 033-8091-00043.

D.1.8 Visible Emission Limitations - Best Available Control Technology [326 IAC 2-2]

- (a) Pursuant to CP 033-8091-00043, issued June 25, 1997 and 326 IAC 2-2 (PSD - Control Technology Review Requirements), visible emissions from the EAF Baghouse 1 and EAF Baghouse 2 stack exhausts (Stack 1 and Stack 92, respectively) shall not exceed three percent (3%) opacity, based on a six (6) minute average (24 readings taken in accordance with 40 CFR Part 60, Appendix A, Method 9).
- (b) Pursuant to CP 033-8091-00043, issued June 25, 1997 and 326 IAC 2-2 (PSD - Control Technology Review Requirements), the fugitive emissions generated by the EAFs shall not exceed three percent (3%) opacity from any building opening as determined by a six (6) minute average (24 readings taken in accordance with 40 CFR Part 60, Appendix A, Method 9). Three percent (3%) opacity is reflective of 100 percent capture.
- (c) Pursuant to CP 033-3692-00043, issued October 7, 1994 and 326 IAC 2-2 (PSD - Control Technology Review Requirements), the EAF slag pit dig out operation located beneath each furnace shall not exceed five (5%) percent opacity. Each EAF slag pit dig out operation shall be controlled with the use of its associated EAF's baghouse.
- (d) Pursuant to CP 033-3692-00043, issued October 7, 1994 and 326 IAC 2-2 (PSD - Control Technology Review Requirements), visible emissions from the building opening and EAF dust handling system shall not exceed three percent (3%) opacity based on a six-minute average (24 readings taken in accordance with 40 CFR Part 60, Appendix A, Method 9).
- (e) Pursuant to CP 033-3692-00043, issued October 7, 1994 and 326 IAC 2-2 (PSD - Control Technology Review Requirements), the carbon and flux additive system conveyors and transfer points shall be enclosed and vented indoors.
- (f) Pursuant to PSD SSM 033-23028-00076 and 326 IAC 2-2-3 (BACT), visible emissions of the exhaust from EAF dust silo 5c shall not exceed three percent (3%) opacity, based on a six (6) minute average (24 readings taken in accordance with EPA Method 9, Appendix A).
- (g) Pursuant to PSD/SSM 033-34498-00043 and 326 IAC 2-2 (BACT), the visible emissions from the bin vents 33, 34, and 35 controlling the Cold Mill Water Treatment Silo and the

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six (6) Carbon/Lime Silos (associated with Bin Vents 33 and 34) shall each not exceed three percent (3%) opacity based on a six minute average.

D.1.9 Particulate Emission Limitations for Manufacturing Processes [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2, the particulate matter (PM) from the two (2) EAF dust silos (bin vent 5a and bin vent 5b), six (6) Lime/carbon silos(associated with Bin Vents 22-27), two (2) alloy silos and the carbon silo shall be calculated with the following equation:

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

$$E = 4.10 P^{0.67} \quad \text{where } E = \text{rate of emission in pounds per hour and} \\ P = \text{process weight rate in tons per hour}$$

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:

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

D.1.10 Preventive Maintenance Plan [326 IAC 2-7-5(12)]

A Preventive Maintenance Plan is required for the EAFs, continuous casters (#1 and #2), EAF dust silo 5c, the Cold Mill Water Treatment Silo and the six (6) Carbon/Lime Silos (associated with Bin Vents 33 and 34) and associated control devices. Condition B.10 - Preventative Maintenance Plan contains the Permittee's obligation with regard to the preventative maintenance plan required by this condition.

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

D.1.11 Testing Requirements [326 IAC 2-7-6(1),(6)][326 IAC 2-1.1-11]

- (a) In order to demonstrate compliance with Condition D.1.1(a) - Particulate (PM/PM10) Limitations - Best Available Control Technology, the Permittee shall perform PM/PM10 testing on the EAF #1 South and EAF #2 North (Stack 01 and Stack 92) utilizing methods as approved by the Commissioner at least once every two and one-half (2.5) years from the date of the most recent valid compliance demonstration
- (b) In order to demonstrate compliance with Condition D.1.2(a) - Nitrogen Oxides (NO_x) Limitations - Best Available Control Technology, the Permittee shall perform NO_x testing on EAF #1 South and EAF #2 North (Stack 01 and Stack 92), utilizing methods as approved by the Commissioner at least once every two and one-half (2.5) years from the date of the most recent valid compliance demonstration.
- (c) In order to demonstrate compliance with Conditions D.1.3(a) - Sulfur Dioxide (SO₂) Limitations - Best Available Control Technology, the Permittee shall perform simultaneous, SO₂ testing on EAF #1 South, EAF #2 North and the LMF (Stack 01, Stack 92 and LMF Stack 61), utilizing methods as approved by the Commissioner at least once every two and one-half (2.5) years from the date of the most recent valid compliance demonstration.
- (d) In order to demonstrate compliance with Conditions D.1.4 - Carbon Monoxide (CO) Limitations - Best Available Control Technology, the Permittee shall perform CO testing on EAF #1 South and EAF #2 North (Stack 01 and Stack 92) utilizing methods as approved by the Commissioner at least once every two and one-half (2.5) years from the date of the most recent valid compliance demonstration.

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- (e) In order to demonstrate compliance with Condition D.1.5(b) - Volatile Organic Compounds (VOC) Limitations - Best Available Control Technology, the Permittee shall perform VOC testing on EAF #1 South and EAF #2 North (Stack 01 and Stack 92) utilizing methods as approved by the Commissioner at least once every two and one-half (2.5) years from the date of the most recent valid compliance demonstration.
- (f) In order to demonstrate compliance with Conditions D.1.6 - Lead Limitations - Best Available Control Technology and D.1.8 - Mercury Limitations, the Permittee shall perform lead and mercury testing on EAF #1 South (Stack 01) and EAF #2 North (Stack 92) utilizing methods as approved by the Commissioner at least once every two and one-half (2.5) years from the date of the most recent valid compliance demonstration.
- (g) Testing shall be conducted in accordance with the provisions of 326 IAC 3-6 (Source Sampling Procedures). Condition C.9 - Performance Testing contains the Permittee's obligation with regard to the performance testing required by this condition.

D.1.12 Particulate Control

- (a) Bin vent filter 5c shall control filterable emissions from EAF dust silo 5c at all times necessary to meet the requirements of Condition D.1.1(d) – Particulate (PM/PM-10) Limitations – Best Available Control Technology.
- (b) In order to assure compliance with Condition D.1.1(e) - Particulate (PM/PM-10) Limitations - Best Available Control Technology, the bin vent filters 33, 34, and 35 shall be in operation or shall be in place and control emissions from the storage silos at all times the associated storage silos are in operation.

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

D.1.13 Visible Emission Notations

- (a) Pursuant to CP 033-8091-00043, issued June 25, 1997, and PSD SSM 033-23028-00043, visible emission notations of the melt shop building openings, dust handling system, melt shop roof monitors and bin vent filter 5c shall be performed once per day during normal daylight operations when exhausting to the atmosphere. A trained employee shall record whether emissions are normal or abnormal.
- (b) Visible emission notations of bin vent 33, 34, and 35 stack exhausts shall be performed once per day during normal daylight operations when loading. A trained employee shall record whether emissions are normal or abnormal.
- (c) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, at least eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.
- (d) 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.
- (e) 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.
- (f) If abnormal emissions are observed, the Permittee shall take a reasonable response. Condition C.15 - Response to Excursions or Exceedances contains the Permittee's obligation with regard to the reasonable response steps required by this condition. Failure to take response steps shall be considered a deviation from this permit.

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D.1.14 Bag Leak Detection System (BLDS)

The Permittee shall comply with the following:

- (a) The Permittee shall install and operate a continuous bag leak detection system (BLDS) on EAF Baghouse #1 and EAF Baghouse #2.
- (b) The BLDS shall meet the following requirements:
 - (1) The bag leak detection system must be certified by the manufacturer to be capable of detecting particulate matter emissions at concentrations of 0.00044 grains per actual cubic foot or less.
 - (2) The bag leak detection system sensor must provide output of relative particulate matter loading.
 - (3) The bag leak detection system must be equipped with an alarm system that will alarm when an increase in relative particulate loading is detected over a preset level established or verified during a stack test or established according to paragraph (4). The alarm must be located such that it can be heard by the appropriate plant personnel.
 - (4) The bag leak detection system shall be installed and operated in a manner consistent with available written guidance from the U.S. Environmental Protection Agency or the manufacturer's written specifications and recommendations for installation, operation, and adjustment of the system.
 - (5) In no event shall the sensitivity be increased by more than 100 percent or decreased by more than 50 percent over a 365 day period unless such adjustment follows a complete baghouse inspection, which demonstrates the baghouse, is in good operating condition.
 - (6) Failure to take response steps shall be considered a deviation from this permit.
 - (7) Whenever a BLDS is malfunctioning or is down for maintenance or repairs for a period of twenty-four (24) hours or more during operation of the relevant EAF and a backup BLDS is not online within twenty-four (24) hours of shutdown or malfunction of the primary BLDS, the Permittee shall provide a certified opacity reader, who may be an employee of the Permittee or an independent contractor, to take visible emission readings from the relevant unit stack.
 - (A) Visible emission readings of the applicable EAF Baghouse(s) shall be performed at least once per day during normal daylight operations.
 - (B) These observations shall be taken in accordance with 40 CFR 60 Appendix A, Method 9 for at least two six (6) minute averages.
 - (C) If abnormal emissions are observed, the Permittee shall take a reasonable response. Section C.15 – Response to Excursions or Exceedances contains the Permittee's obligations with regard to the reasonable response steps required by this condition. Abnormal emissions are not a deviation from this permit. Failure to take response steps shall be considered a deviation from this permit.

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D.1.15 Broken or Failed Bin Vent Detection

For a bin vent filter 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 emission unit. 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).

Bin vent filter failure can be indicated by a significant drop in the bin vent's 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.1.16 Record Keeping Requirements

- (a) To document the compliance status with Conditions D.1.8 - Visible Emission Limitations - Best Available Control Technology and 1.13 - Visible Emissions Notations, the Permittee shall maintain records of visible emission notations required by Condition D.1.13 - Visible Emissions Notations. 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 the compliance status with condition D.1.14 – Bag Leak Detection System (BLDS), the Permittee shall maintain records of the dates and times of all bag leak detection system alarms, the cause of each alarm, and an explanation of all corrective actions taken.
- (c) Condition C.18 - General Record Keeping Requirements contains the Permittee's obligations with regard to the records required by this condition.

D.1.17 General Provisions Relating to New Source Performance Standards [326 IAC 12-1][40 CFR Part 60, Subpart A]

- (a) Pursuant to 40 CFR 60.1, the Permittee shall comply with the provisions of 40 CFR Part 60, Subpart A - General Provisions, which are incorporated by reference in 326 IAC 12-1, for the Electric Arc Furnaces, except as otherwise specified in 40 CFR Part 60, Subpart AAa.
- (b) Pursuant to 40 CFR 60.19, the Permittee shall submit all required notifications and reports to:

Indiana Department of Environmental Management
Compliance and Enforcement Branch, Office of Air Quality
100 North Senate Ave.
MC61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

D.1.18 Steel Plants: Electric Arc Furnaces and Argon-Oxygen Decarburization Vessels Constructed After August 17, 1983 NSPS [40 CFR 60, Subpart AAa][326 IAC 12]

Pursuant to 40 CFR Part 60, Subpart AAa, the Permittee shall comply with the provisions of 40 CFR 60, Subpart AAa, which are incorporated by reference as 326 IAC 12 (included as Attachment B to this permit), for the Electric Arc Furnaces:

- (1) 40 CFR 60.270a
- (2) 40 CFR 60.271a
- (3) 40 CFR 60.272a

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- (4) 40 CFR 60.273a
- (5) 40 CFR 60.274a
- (6) 40 CFR 60.275a
- (7) 40 CFR 60.276a

D.1.19 General Provisions Relating to National Emission Standards for Hazardous Air Pollutants Under 40 CFR Part 63 [326 IAC 20-1][40 CFR Part 63, Subpart A]

- (a) Pursuant to 40 CFR 63.10690, 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 electric arc furnace steelmaking facilities as specified in 40 CFR 63, Subpart YYYYYY, in accordance with schedule in 40 CFR 63 Subpart YYYYYY.

- (b) Pursuant to 40 CFR 63.10, the Permittee shall submit all required notifications and reports to:

United States Environmental Protection Agency, Region 5
Air and Radiation Division, Air Enforcement Branch - Indiana (AE-17J)
77 West Jackson Boulevard
Chicago, Illinois 60604-3590

D.1.20 Area Sources: Electric Arc Furnace Steelmaking Facilities NESHAP [40 CFR Part 63, Subpart YYYYYY]

Pursuant to 40 CFR Part 63, Subpart YYYYYY, the Permittee shall comply with the following provisions of 40 CFR 63, Subpart YYYYYY (included as Attachment C to this permit), for the electric arc furnace steelmaking facilities:

- (1) 40 CFR 63.10681(a)
- (2) 40 CFR 63.10685
- (3) 40 CFR 63.10686(a), (b)
- (4) 40 CFR 63.10690
- (5) Table 1 to 40 CFR 63, Subpart YYYYYY

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SECTION D.2 EMISSIONS UNIT OPERATION CONDITIONS

(LADLE METALLURGICAL STATIONS)

Emissions Unit Description:

Ladle Metallurgical Stations

Two (2) Ladle Metallurgical Stations (LMS) (South permitted in 1994 for construction and approved in 2013 for modification and North permitted in 1998 for construction), each with a nominal capacity of 200 tons per hour. Particulate (PM/PM10) emissions are controlled by the Ladle Metallurgical Furnaces (LMF) baghouse (permitted in 1998 for construction, with a nominal air flow rate of 200,000 standard cubic feet per minute) exhausting through Stack 61. The LMS consists of the following:

- (a) One (1) Ladle Metallurgical Furnace (LMF1), modified in 2013 with the integration of existing stir station 1.
- (b) One (1) Ladle Metallurgical Furnace (LMF2), modified in 2013 with the integration of new stir station 2.
- (c) One (1) Ladle Metallurgical Furnace (LMF3) equipped with integrated stir station 3.

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

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

D.2.1 Particulate (PM/PM-10) Limitations - Best Available Control Technology [326 IAC 2-2]

- (a) Pursuant to CP 033-9187-00043, issued March 24, 1998 and 326 IAC 2-2 (PSD - Control Technology Review; Requirements), PM/PM-10 emissions from the ladle metallurgical stations (LMS) and stir stations shall be captured by a side draft hood and exhausted to the LMF baghouse to Stack 61.
- (b) Pursuant to CP 033-9187-00043, March 24, 1998 and 326 IAC 2-2 (PSD - Control Technology Review; Requirements), PM/PM-10 filterable emissions from the LMF Stack 61 shall not exceed 0.0032 grains per dry standard cubic foot and 5.49 pounds per hour.

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

Pursuant to CP 033-9187-00043 and 326 IAC 2-2 (PSD - Control Technology Review; Requirements), the NOx emissions from the LMF Stack 61 shall not exceed 0.025 pounds per ton of steel produced and 10 pounds of NOx emissions per hour.

D.2.3 Carbon Monoxide (CO) Limitations- Best Available Control Technology [326 IAC 2-2]

Pursuant to CP 033-9187-00043, issued March 24, 1998 and 326 IAC 2-2 (PSD - Control Technology Review; Requirements), CO emissions from LMF Stack 61 shall not exceed 0.1 pounds per ton of steel produced and 40 pounds of CO per hour.

D.2.4 VOC Minor Limitations [326 IAC 2-2]

Pursuant to CP 033-9187-00043, issued March 24, 1998, and Significant Permit Modification No. 033-28134-00043, VOC emissions from the LMF Stack 61 shall not exceed 0.0082 pounds per ton of steel produced and 3.28 pounds of VOC per hour.

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Compliance with these emission limits will ensure that the VOC emissions from CP 033-9187-00043 are less than forty (40) tons per year and therefore will render the requirements of 326 IAC 2-2 not applicable to CP 033-9187-00043 for VOC.

D.2.5 Visible Emission Limitations - Best Available Control Technology [326 IAC 2-2]

Pursuant to CP 033-9187-00043, issued March 24, 1998 and 326 IAC 2-2 (PSD - Control Technology Review; Requirements), visible emissions from the LMF baghouse Stack 61 shall not exceed three percent (3%) opacity based on a six-minute average (24 readings taken in accordance with 40 CFR Part 60, Appendix A, Method 9).

D.2.6 Preventive Maintenance Plan [326 IAC 2-7-5(12)]

A Preventive Maintenance Plan is required for the LMF and the associated control devices. Condition B.10 - Preventive Maintenance Plan contains the Permittee's obligation with regard to the preventive maintenance plan required by this condition.

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

D.2.7 Testing Requirements [326 IAC 2-7-6(1),(6)][326 IAC 2-1.1-11]

- (a) In order to demonstrate compliance with Condition D.2.1- Particulate (PM/PM-10) Limitations – Best Available Control Technology, the Permittee shall perform PM/PM10 testing on the LMF Stack 61 utilizing methods as approved by the Commissioner at least once every two and one-half (2.5) years from the date of the most recent valid compliance demonstration.
- (b) In order to demonstrate compliance with Condition D.2.2 - Nitrogen Oxide (NOx) Limitations - Best Available Control Technology, the Permittee shall perform NOx testing on the LMF Stack 61 utilizing methods as approved by the Commissioner at least once every two and one-half (2.5) years from the date of the most recent valid compliance demonstration.
- (c) In order to demonstrate compliance with Conditions D.2.3 - Carbon Monoxide (CO) Limitations - Best Available Control Technology, the Permittee shall perform CO testing on the LMF Stack 61 utilizing methods as approved by the Commissioner at least once every two and one-half (2.5) years from the date of the most recent valid compliance demonstration.
- (d) In order to demonstrate compliance with Condition D.2.4 – VOC Minor Limitations, the Permittee shall perform VOC testing on the LMF Stack 61, utilizing testing methods approved by the Commissioner at least once every two and one-half (2.5) years from the date of the most recent valid compliance demonstration.
- (e) Testing shall be conducted in accordance with the provisions of 326 IAC 3-6 (Source Sampling Procedures). Condition C.9 - Performance Testing contains the Permittee's obligation with regard to the performance testing required by this condition.

D.2.8 Particulate Control [326 IAC 2-7-6(6)]

- (a) The LMF baghouse shall be operated at all times when the LMSs are 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.

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

D.2.9 Visible Emission Notations [40 CFR 64]

- (a) Visible emission notations of the LMF Baghouse Stack 61 exhaust, shall be performed once per day during normal daylight operations when exhausting to the atmosphere. A trained employee shall record whether emissions are normal or abnormal.
- (b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, at least 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 a reasonable response. Condition C.15 - Response to Excursions or Exceedances contains the Permittee's obligation with regard to the reasonable response steps required by this condition. Failure to take response steps shall be considered a deviation from this permit.

D.2.10 Parametric Monitoring [40 CFR 64]

The Permittee shall record the pressure drop across the baghouse used in conjunction with the LMF at least once per day when the LMF is in operation. When for any one reading, the pressure drop across the baghouse is outside the normal range, the Permittee shall take a reasonable response. The normal range for this unit is a pressure drop between 2.0 and 10.0 inches of water unless a different upper-bound or lower-bound value for this range is determined during the latest stack test. Condition C.15 - Response to Excursions or Exceedances contains the Permittee's obligation with regard to the reasonable response steps required by this condition. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps shall be considered a deviation from this permit.

The instrument used for determining the pressure shall comply with Condition C.11 - Instrument Specifications, of this permit, shall be subject to approval by IDEM, OAQ, and shall be calibrated or replaced at least once every six (6) months or other time period specified by the manufacturer. The Permittee shall maintain records of the manufacturer specifications, if used.

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

D.2.11 Record Keeping Requirements

- (a) To document the compliance status with Condition D.2.9 - Visible Emission Notations, the Permittee shall maintain records of visible emission notations of the LMF Stack 61 exhaust. The Permittee shall include in its daily record when a visible emission notation is not taken and the reason for the lack of a visible emission notation (e.g. the process did not operate that day).
- (b) To document the compliance status with Condition D.2.10 - Parametric Monitoring, the Permittee shall maintain records of the pressure drop during normal operation. 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).

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- (c) Condition C.18 - General Record Keeping Requirements contains the Permittee's obligations with regard to the records required by this condition.

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SECTION D.3 EMISSIONS UNIT OPERATION CONDITIONS (TUNNEL FURNACES)

Emissions Unit Description:

Hot Mill Operations - Tunnel Furnaces

- (a) One (1) tunnel furnace, No. 1 South, permitted in 1994 for construction, using low NO_x burners, with a nominal heat input capacity of 117.9 MMBtu per hour (nominal 92 MMBtu per hour in the heating zone and nominal 25.9 MMBtu per hour in the holding zone), exhausting through Stack 2.
- (b) One (1) tunnel furnace, No. 2 North, permitted in 1997 for construction, using low NO_x burners with a nominal heat input capacity of 92 MMBtu per hour in the heating zone, exhausting through Stack 42.

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

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

D.3.1 Nitrogen Oxides (NO_x) Limitations - Best Available Control Technology [326 IAC 2-2]

- (a) Pursuant to CP 033-3692-00043, issued October 7, 1994 and 326 IAC 2-2 (PSD- Control Technology Review; Requirements), Tunnel Furnace No. 1 shall be equipped with low NO_x natural gas fired burners and total NO_x emissions shall not exceed 0.17 pounds per MMBtu and 20.0 pounds per hour through Stack 2.
- (b) Pursuant to CP 033-8091-00043, issued June 25, 1997 and 326 IAC 2-2 (PSD- Control Technology Review; Requirements), Tunnel Furnace No. 2 heating zone shall be equipped with low NO_x natural gas fired burners and total NO_x emissions shall not exceed 0.10 pounds per MMBtu and 9.2 pounds per hour through Stack 42.

D.3.2 Visible Emissions Limitations - Best Available Control Technology [326 IAC 2-2]

- (a) Pursuant to CP 033-3692-00043, issued October 7, 1994 and 326 IAC 2-2 (PSD- Control Technology Review; Requirements), visible emissions from Tunnel furnace No. 1 (Stack 2), shall not exceed five percent (5%) opacity based on a six (6) minute average (24 readings taken in accordance with 40 CFR Part 60, Appendix A, Method 9).
- (b) Pursuant to CP 033-8091-00043, issued June 25, 1997 and 326 IAC 2-2 (PSD- Control Technology Review; Requirements), visible emissions from Tunnel Furnace No. 2 (Stack 42), shall not exceed three percent (3%) opacity based on a six (6) minute average (24 readings taken in accordance with 40 CFR Part 60, Appendix A, Method 9).

D.3.3 Preventive Maintenance Plan [326 IAC 2-7-5(12)]

A Preventive Maintenance Plan is required for the Tunnel Furnace No. 1 and Tunnel Furnace No.2 natural gas fired burners. Condition B.10 - Preventive Maintenance Plan contains the Permittee's obligation with regard to the preventive maintenance plan required by this condition.

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SECTION D.4 EMISSIONS UNIT OPERATION CONDITIONS (PICKLING LINE)

Emissions Unit Description:

Cold Mill Operations – Pickling Lines

- (a) One (1) pickling line, with a nominal capacity of 1.4 million tons of steel throughput per year, permitted in 1996 for construction, with a packed scrubber and covered tanks maintained under negative pressure, for Hydrochloric Acid (HCl) control, and a mist eliminator for PM/PM-10 control, exhausting to Stack 17.
- (b) One (1) Pickling Line, identified as Pickling Line 2, approved in 2015 for construction, with a nominal capacity of 1.4 million tons of steel throughput per year, equipped with a packed scrubber (Pickling Line 2 Fume Scrubber) and covered tanks maintained under negative pressure, for particulate and Hydrochloric Acid (HCl) control, exhausting to Stack Pickle 2.

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

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

D.4.1 Particulate Matter Emissions Limitations - Best Available Control Technology (BACT) [326 IAC 2-2]

Pursuant to CP 033-5625-00043, issued August 8, 1996 and 326 IAC 2-2 (BACT), the pickle line particulate matter emissions shall be controlled by a scrubber with mist eliminator and the filterable particulate matter emissions from Stack 17 shall not exceed 1.23 pounds per hour. The scrubber with mist eliminator shall be operated at all times when the pickle line is in operation.

D.4.2 PSD Minor Limit [326 IAC 2-2]

In order to render the requirements of 326 IAC 2-2 (PSD) not applicable, the following conditions shall apply:

- (a) Filterable PM emissions from Pickling Line 2 shall not exceed 3.90 pounds per hour.
- (b) PM₁₀ emissions from Pickling Line 2 shall not exceed 0.65 pounds per hour.
- (c) PM_{2.5} emissions from Pickling Line 2 shall not exceed 0.13 pounds per hour.

Compliance with these emission limits, along with the emission limits in D.5.2 and D.7.2, will ensure that the potential to emit from this modification is less than twenty-five (25) tons of PM per twelve (12) consecutive month period, less than fifteen (15) tons of PM₁₀ per twelve (12) consecutive month period, and less than ten (10) tons of direct PM_{2.5} per twelve (12) consecutive month period, and therefore will render the requirements of 326 IAC 2-2 not applicable for the 2015 modification.

D.4.3 Hydrochloric Acid (HCl) Pickling HAP Minor Emission Limitation [40 CFR 63.1]

- (a) Pursuant to CP 033-5625-00043, issued August 8, 1996, the hydrochloric acid mist from the pickle line shall be controlled by a scrubber with mist eliminator. Emissions shall not exceed 0.32 pounds per hour. The scrubber and mist eliminator shall be operated at all times when the pickle line is in operation.
- (b) Hydrochloric Acid (HCl) emissions from Pickling Line 2 shall not exceed 0.32 pounds per hour.

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Compliance with this limit and the potential to emit from all other units, limits the source-wide PTE of HCl and a combination of HAPs to less than ten (10) and twenty-five (25) tons per twelve (12) consecutive month period, respectively, and renders this an area source under 40 CFR Part 63.

D.4.4 Preventive Maintenance Plan [326 IAC 2-7-5(12)]

A Preventive Maintenance Plan is required for the pickling line, scrubber and mist eliminator and Pickling Line 2 and scrubber. Condition B.10 - Preventive Maintenance Plan contains the Permittee's obligation with regard to the preventive maintenance plan required by this condition.

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

D.4.5 Testing Requirements [326 IAC 2-7-6(1),(6)][326 IAC 2-1.1-11]

- (a) In order to demonstrate compliance with Condition D.4.3(a) - Hydrochloric Acid (HCl) Pickling HAP Minor Emission Limitation, the Permittee shall perform a hydrochloric acid test on the pickle line Stack 17, utilizing methods as approved by the Commissioner at least once every five (5) years from the date of the most recent valid compliance demonstration.
- (b) Not later than 180 days after start-up of Pickling Line 2, in order to demonstrate compliance with Conditions D.4.2(a), D.4.2(b) and D.4.2(c), the Permittee shall perform PM, PM₁₀ and PM_{2.5} testing on Pickling Line 2, utilizing methods as approved by the Commissioner. These tests shall be repeated at least once every five (5) years from the date of this valid compliance demonstration.
- (c) Not later than 180 days after start-up of Pickling Line 2, in order to demonstrate compliance with Condition D.4.3(b), the Permittee shall perform a hydrochloric acid test on Pickle Line 2, 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.
- (d) Testing shall be conducted in accordance with the provisions of 326 IAC 3-6 (Source Sampling Procedures). Condition C.9 - Performance Testing contains the Permittee's obligation with regard to the performance testing required by this condition.

D.4.6 Particulate and HCl Control

The packed scrubber for particulate and HCl control shall be in operation and control emissions from Pickling Line 2 at all times that Pickling Line 2 is in operation.

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

D.4.7 Parametric Monitoring [40 CFR 64]

- (a) The Permittee shall record the flow rate of the packed scrubber used in conjunction with the Pickling Line, at least once per day when the Pickling Line is in operation
- (b) The Permittee shall determine the minimum flow rate from the latest valid stack test that demonstrates compliance with limits in Condition D.4.3(a) - Hydrochloric Acid (HCL) Pickling HAP Minor Emission Limitation.
- (c) On and after the date the stack test results are available, the Permittee shall maintain a flow rate at or above the minimum rate as observed during the latest compliant stack test.
- (d) When for any one reading, the flow rate falls below the above mentioned minimum, the Permittee shall take a reasonable response. Condition C.15 - Response to Excursions or Exceedances contains the Permittee's obligation with regard to the reasonable steps

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required by this condition. A reading that is below the above mentioned minimum flow rate is not a deviation from this permit. Failure to take response steps shall be considered a deviation from this permit.

D.4.8 Parametric Monitoring

- (a) The Permittee shall record the flow rate of the packed scrubber used in conjunction with the Pickling Line 2, at least once per day when the Pickling Line 2 is in operation.
- (b) The Permittee shall determine the minimum flow rate from the latest valid stack test that demonstrates compliance with limits in Conditions D.4.2(a), D.4.2(b), D.4.3(c) - PSD Minor Limit and D.4.3(b) - Hydrochloric Acid (HCL) Pickling HAP Minor Emission Limitation. From the date of startup until the stack test results are available, the Permittee shall operate the packed scrubber at a minimum of 1.0 gallons per minute when Pickling Line 2 is in operation.
- (c) On and after the date the stack test results are available, the Permittee shall maintain a flow rate at or above the minimum rate as observed during the latest compliant stack test.
- (d) When for any one reading, the flow rate falls below the above mentioned minimum, the Permittee shall take a reasonable response. Condition C.15 - Response to Excursions or Exceedances contains the Permittee's obligation with regard to the reasonable steps required by this condition. A reading that is below the above mentioned minimum flow rate is not a deviation from this permit. Failure to take response steps shall be considered a deviation from this permit.

D.4.9 Scrubber Failure Detection

In the event, a scrubber failure has been observed:

For a scrubber controlling emissions from a process operated continuously, a failed unit and the associated process shall be shut down immediately upon removal of the coil from the process 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 (Condition B.11 - Emergency Provisions).

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

D.4.10 Record Keeping Requirements

- (a) To document the compliance status with Conditions D.4.7 and D.4.8 - Parametric Monitoring, the Permittee shall maintain records of the once per day pickling line scrubber flow rate readings. The Permittee shall include in its daily record when a flow rate reading is not taken and the reason for the lack of a flow rate reading (e.g. the process did not operate that day).
- (b) Condition C.18 - General Record Keeping Requirements contains the Permittee's obligations with regard to the records required by this condition.

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SECTION D.5 EMISSIONS UNIT OPERATION CONDITIONS

(PICKLE LINE SCALE BREAKER AND HOT BAND LEVELER)

Emissions Unit Description:

Pickle Line Scale Breaker

- (a) One (1) scale breaker, permitted in 1996 for construction, with a nominal capacity of 1.4 million tons of steel throughput per year that removes scale from the rolled steel prior to the pickling process. Particulate (PM/PM10) emissions are controlled by a baghouse with a nominal air flow rate of 10,600 acfm and exhausting to Stack 60.

Hot Band Leveler

- (a) One (1) Hot Band Leveler, constructed in 2012, with a nominal process rate of 160 tons of steel throughput per hour, equipped with a baghouse for particulate control, exhausting indoors through stack Level.

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

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

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

Pursuant to 326 IAC 2-2 BACT, the pickle line scale breaker particulate matter PM/PM10 emissions shall be controlled by a baghouse with an outlet grain loading of 0.003 gr/dscf and PM/PM10 emissions shall not exceed 1.19 lb/hr.

D.5.2 PSD Minor Limit [326 IAC 2-2]

Pursuant to SSM 033-34898-00043 and SPM 033-37274-00043, in order to render the requirements of 326 IAC 2-2 (PSD) not applicable, the following conditions shall apply:

- (a) Filterable PM emissions from the Hot Band Leveler shall not exceed 0.22 pounds per hour.
- (b) PM₁₀ emissions from the Hot Band Leveler shall not exceed 0.22 pounds per hour.
- (c) PM_{2.5} emissions from the Hot Band Leveler shall not exceed 0.22 pounds per hour.

Compliance with these emission limits, along with the emission limits in D.4.2 and D.7.2, will ensure that the potential to emit from this modification is less than twenty-five (25) tons of PM per twelve (12) consecutive month period, less than fifteen (15) tons of PM₁₀ per twelve (12) consecutive month period, and less than ten (10) tons of direct PM_{2.5} per twelve (12) consecutive month period, and therefore will render the requirements of 326 IAC 2-2 not applicable for the 2015 modification.

D.5.3 Preventive Maintenance Plan [326 IAC 2-7-5(12)]

A Preventive Maintenance Plan is required for the scale breaker and baghouse and Hot Band Leveler and baghouse. Condition B.10 - Preventive Maintenance Plan contains the Permittee's obligation with regard to the preventive maintenance plan required by this condition.

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

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D.5.4 Particulate Control

- (a) In order to assure compliance with Condition D.5.1, the scale breaker baghouse shall be in operation at all times the scale breaker is in operation.
- (b) In order to assure compliance with Condition D.5.2, the baghouse for particulate control shall be in operation and control emissions from the Hot Band Leveler at all times that the Hot Band Leveler is in operation.

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

Not later than 180 days after start-up of the new Hot Band Leveler, in order to demonstrate compliance with Conditions D.5.2(a), D.5.2(b), and D.5.2(c), the Permittee shall perform PM, PM₁₀ and PM_{2.5} testing of the Hot Band Leveler utilizing methods approved by the commissioner. Testing shall be conducted in accordance with the provisions of 326 IAC 3-6 (Source Sampling Procedures). Condition C.9 – Performance Testing contains the Permittee's obligation with regard to the performance testing required by this condition. PM₁₀ and PM_{2.5} includes filterable and condensable PM.

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

D.5.6 Visible Emissions Notations [40 CFR 64]

- (a) Visible emission notations of the pickle line scale breaker stack exhaust shall be performed once per day during normal daylight operations when exhausting to the atmosphere. A trained employee shall record whether emissions are normal or abnormal.
- (b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, at least 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 a reasonable response. Condition C.15 - Response to Excursions or Exceedances contains the Permittee's obligation with regard to the reasonable response steps required by this condition. Failure to take response steps shall be considered a deviation from this permit.

D.5.7 Visible Emissions Notations

- (a) Visible emission notations of the Hot Band Leveler 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.

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- (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 a reasonable response. Condition C.15 - Response to Excursions or Exceedances contains the Permittee's obligation with regard to the reasonable response steps required by this condition. Failure to take response steps shall be considered a deviation from this permit.

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

D.5.8 Record Keeping Requirements

- (a) To document the compliance status with Conditions D.5.6 and D.5.7- Visible Emission Notations, the Permittee shall maintain records of daily visible emission notations of the baghouse(s) stack exhausts. 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) Condition C.18 - General Record Keeping Requirements contains the Permittee's obligations with regard to the records required by this condition.

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SECTION D.6 EMISSIONS UNIT OPERATION CONDITIONS (PICKLING LINE BOILERS)

Emissions Unit Description:

Pickling Line Boilers

- (a) Three (3) natural gas fired boilers Nos. 1, 2 and 3, two (2) permitted in 1996 and one (1) permitted in 2006, equipped with low NOx burners, exhausting to Stacks 15, 16a and 16b. The nominal heat input for each boiler is 20.4 MMBtu per hour.
- (b) Two (2) natural gas-fired pickling line boilers, identified as Boilers #4, and #5, approved in 2015 for construction, with a nominal heat input for each boiler of 20.4 MMBtu per hour, equipped with low NOx burners, exhausting to combined Stack Boil456.

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

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

D.6.1 Nitrogen Oxides (NOx) Limitations – Best Available Control Technology (BACT) [326 IAC 2-2]

- (a) Pursuant to 326 IAC 2-2 (BACT), only two of the three boilers Nos. 1, 2 and 3, shall be utilized at any time.
- (b) Pursuant to CP 033-5625-00043, issued August 8, 1996 and 326 IAC 2-2 (BACT), the NOx emissions from the pickle line boilers shall not exceed 81 pounds per million cubic feet (MMCF) of gas burned.

D.6.2 Reserved

D.6.3 Particulate Emission Limitations [326 IAC 6-2-4]

Pursuant to 326 IAC 6-2-4 (Particulate Emission Limitations for Sources of Indirect Heating), the particulate emissions from the following units shall be limited to Pt pounds per MMBtu heat input, as follows:

Emission Unit	Unit ID	Pt (lb/MMBtu)
Pickling Line Boiler	No. 1	0.32
Pickling Line Boiler	No. 2	0.32
Pickling Line Boiler	No. 3	0.32
Pickling Line Boiler	No. 4	0.28
Pickling Line Boiler	No. 5	0.28

D.6.4 Preventive Maintenance Plan [326 IAC 2-7-5(12)]

A Preventive Maintenance Plan is required for the pickling line boilers. Condition B.10 - Preventive Maintenance Plan contains the Permittee's obligation with regard to the preventive maintenance plan required by this condition.

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

D.6.5 Testing Requirements [326 IAC 2-1.1-11]

In order to demonstrate that the 2015 modification is minor under 326 IAC 2-2 (Prevention of Significant Deterioration (PSD)),

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- (a) Not later than 180 days after start-up of the Boiler #4, the Permittee shall perform NOx testing on Boiler #4 to verify the NOx emission factor, utilizing methods as approved by the Commissioner.
- (b) Not later than 180 days after start-up of the Boiler #5, the Permittee shall perform NOx testing on Boiler #5 to verify the NOx emission factor, utilizing methods as approved by the Commissioner.

Testing shall be conducted in accordance with the provisions of 326 IAC 3-6 (Source Sampling Procedures). Condition C.9 – Performance Testing contains the Permittee's obligation with regard to the performance testing required by this condition.

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

D.6.6 Reserved

D.6.7 General Provisions Relating to New Source Performance Standards [326 IAC 12-1][40 CFR Part 60, Subpart A]

Pursuant to 40 CFR 60.1, the Permittee shall comply with the provisions of 40 CFR Part 60, Subpart A - General Provisions, which are incorporated by reference in 326 IAC 12-1, for the above listed emissions units, except as otherwise specified in 40 CFR Part 60, Subpart Dc.

D.6.8 Small industrial Boilers, Commercial-Institutional Steam Generating Boilers NSPS [40 CFR 60, Subpart Dc][326 IAC 12]

Pursuant to 40 CFR Part 60, Subpart Dc, the Permittee shall comply with the provisions of 40 CFR 60, Subpart Dc, which are incorporated by reference in 326 IAC 12 (included as Attachment D to this permit), for the above listed emissions units as specified as follows.

- (1) 40 CFR 60.40c (a), (b)
- (2) 40 CFR 60.41c
- (3) 40 CFR 60.48c (a)(1 - 3), (g), (i), (j)

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SECTION D.7 EMISSIONS UNIT OPERATION CONDITIONS (REVERSING MILL)

Emissions Unit Description:

Reversing Mill

- (a) One (1) cold reversing mill, with a nominal capacity of one (1.0) million tons of steel throughput per year, permitted in 1996 for construction, with a mist eliminator for particulate (PM/PM₁₀) emissions control, exhausting to Stack 18.
- (b) One (1) two-stand cold reversing mill, identified as Reversing Mill 2, approved in 2015 for construction, with a nominal capacity of 1.0 million tons of steel throughput per year, equipped with a mist eliminator for particulate control, exhausting to Stack Revmill 2.

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

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

D.7.1 Particulate Matter Emissions - Best Available Control Technology (BACT) [326 IAC 2-2]

Pursuant to CP 033-5625-00043, issued August 8, 1996 and 326 IAC 2-2 (BACT), the filterable particulate matter emissions from the cold reversing mill shall be controlled by a mist eliminator. Particulate matter emissions from Stack 18 shall not exceed 7.2 pounds per hour.

D.7.2 PSD Minor Limit [326 IAC 2-2]

In order to render the requirements of 326 IAC 2-2 (PSD) not applicable, the following conditions shall apply:

- (a) Filterable PM emissions from Reversing Mill 2 shall not exceed 1.14 pounds per hour.
- (b) PM₁₀ emissions from Reversing Mill 2 shall not exceed 1.14 pounds per hour.
- (c) PM_{2.5} emissions from Reversing Mill 2 shall not exceed 0.57 pounds per hour.

Compliance with these emission limits, along with the emission limits in D.4.2 and D.5.2 will ensure that the potential to emit from this modification is less than twenty-five (25) tons of PM per year, less than fifteen (15) tons of PM₁₀ per year, less than ten (10) tons of direct PM_{2.5} per year, and therefore will render the requirements of 326 IAC 2-2 not applicable for the 2015 modification.

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

D.7.3 Particulate Control

- (a) The reversing mill mist eliminator shall be in operation at all times the reversing mill is in operation.
- (b) The mist eliminator shall be in operation and control emissions from Reversing Mill 2 at all times Reversing Mill 2 is in operation.

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D.7.4 Testing Requirements [326 IAC 2-7-6(1),(6)][326 IAC 2-1.1-11]

Not later than 180 days after start-up of Reversing Mill 2, in order to demonstrate compliance with Condition D.7.2(a), D.7.2(b) and D.7.2(c), the Permittee shall perform PM, PM₁₀ and PM_{2.5} testing on Reversing Mill 2 utilizing methods as approved by the Commissioner.

These tests shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. Testing shall be conducted in accordance with the provisions of 326 IAC 3-6 (Source Sampling Procedures). Condition C.9 – Performance Testing contains the Permittee's obligation with regard to the performance testing required by this condition.

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

D.7.5 Visible Emissions Notations [40 CFR 64]

- (a) Daily visible emission notations of the Reversing Mill stack exhaust (Stack 18) shall be performed 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 a reasonable response. Condition C.15 – Response to Excursions and Exceedances contains the Permittee's obligation with regard to the reasonable response required by this condition. Failure to take a reasonable response shall be considered a deviation from this permit.

D.7.6 Visible Emissions Notations

- (a) Daily visible emission notations of the Reversing Mill 2 stack exhaust (Stack Revmill 2) shall be performed 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 a reasonable response. Condition C.15 – Response to Excursions and Exceedances contains the Permittee's obligation with regard to the reasonable response required by this condition. Failure to take a reasonable response shall be considered a deviation from this permit.

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

D.7.7 Record Keeping Requirements

- (a) To document the compliance status with Conditions D.7.5 and D.7.6, the Permittee shall maintain records of the once per day visible emission notations of Stack 18 exhaust and Reversing Mill 2 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 a visible emission notation (e.g., the process did not operate that day).
- (b) Condition C.18 - General Record Keeping Requirements contains the Permittee's obligations with regard to the records required by this condition.

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SECTION D.8 EMISSIONS UNIT OPERATION CONDITIONS (GALVANIZING LINES)

Emissions Unit Description:

Galvanizing Lines

- (a) One (1) hot band galvanizing line, identified as Galvanizing Line #1, with a nominal capacity of 570,000 tons of steel throughput per year, permitted in 1996 for construction and for modification in 2015, heated by low NOx burner natural gas fired heaters with a total nominal heat input capacity of 75.7 MMBtu per hour, and consisting of:
- (1) Twenty-four Preheat Burners, permitted in 1996, with a total nominal rated heat input capacity of 44.71 MMBtu/hr, exhausting through Stack 19.
- Replacement burners:
- (1) Four (4) Preheat Burners, approved in 2015 for construction, with a total nominal rated heat input capacity of 7.45 MMBtu/hr exhausting through Stack 19.
- (2) Eight (8) Radiant Burners, approved in 2015 for construction, with a total nominal rated heat input capacity of 2.36 MMBtu/hr, exhausting indoors.
- (3) One (1) Drying Burner, approved in 2015 for construction, with a nominal rated heat input capacity of 0.50 MMBtu/hr, exhausting indoors.
- New burners:
- (1) Twenty-four (24) Radiant Burners, approved in 2015 for construction, with a total nominal rated heat input capacity of 7.08 MMBtu/hr, exhausting indoors.
- (2) Two (2) Cleaning Burners, approved in 2015 for construction, with a total nominal rated heat input capacity of 10.60 MMBtu/hr, exhausting to Stacks G1C1 and G1C2, respectively.
- (3) One (1) Cleaning Burner, approved in 2015 for construction, with a nominal rated heat input capacity of 3.0 MMBtu/hr, exhausting to Stack G1C3.
- (4) Eight (8) Preheat Burners, approved in 2016 for construction, with a total nominal rated heat input capacity of 14.88 MMBtu/hr, exhausting through Stack 19.
- (b) One (1) cold rolled galvanizing line, identified as Galvanizing Line #2, with a nominal capacity of 430,000 tons of steel throughput per year, permitted in 1996 for construction and modified in 2015, heated by low NOx burner natural gas fired heaters, with a total nominal heat input capacity of 93.6 MMBtu per hour, and consisting of :
- (1) Burners, permitted in 1996, with a total nominal rated heat input capacity of 54.15 MMBtu/hr, exhausting to Stack19.

Replacement burners:

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- (1) Two (2) Cleaning Burners, approved in 2015 for construction, with a total nominal rated heat input capacity of 10.60 MMBtu/hr, exhausting to Stacks G2C1 and G2C2, respectively.
- (2) One (1) Cleaning Burner, approved in 2015 for construction, with a nominal rated heat input capacity of 3.00 MMBtu/hr, exhausting to Stack G2C3.
- (3) Three (3) Drying Burners, approved in 2015 for construction, with a total nominal rated heat input capacity of 1.50 MMBtu/hr, exhausting indoors.

New burners:

- (1) Eight (8) Preheat Burners, approved in 2015 for construction, with a total nominal rated heat input capacity of 14.90 MMBtu/hr, exhausting through Stack 19.
- (2) Thirty-two (32) Radiant Burners, approved in 2015 for construction, with a total nominal rated heat input capacity of 9.44 MMBtu/hr, exhausting indoors.

Note: This line also includes a backup cleaning burner, with nominal rated heat input capacity of 5.3 MMBtu/hr.

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

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

D.8.1 Particulate Matter Emissions - Best Available Control Technology (BACT) [326 IAC 2-2]

Pursuant to CP 033-5625-00043, issued August 8, 1996 and 326 IAC 2-2 (BACT), the hot band and cold roll galvanizing lines heaters shall burn natural gas only.

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

- (a) Pursuant to CP 033-5625-00043, issued August 8, 1996 and 326 IAC 2-2 (BACT), the NOx emissions from the hot band galvanizing line heaters approved in 1996 shall not exceed 200 pounds per MMCF of natural gas burned.
- (b) Pursuant to CP 033-5625-00043, issued August 8, 1996 and 326 IAC 2-2 (BACT), the hot band galvanizing line heaters approved in 1996 shall use low-NOx burners.
- (c) Pursuant to CP 033-5625-00043, issued August 8, 1996 and 326 IAC 2-2 (BACT), the NOx emissions from the cold roll galvanizing line heaters approved in 1996 shall not exceed 200 pounds per MMCF of natural gas burned.
- (d) Pursuant to CP 033-5625-00043, issued August 8, 1996 and 326 IAC 2-2 (BACT), the cold roll galvanizing line heaters approved in 1996 shall use low-NOx burners.

D.8.3 Particulate Emissions Limitation [326 IAC 6-2-4]

Pursuant to 326 IAC 6-2-4 (Particulate Emission Limitations for Sources of Indirect Heating), particulate emissions from the new radiant tube and cleaning section burners added in 2015 as part of Galvanizing Line #1 and Galvanizing Line #2 shall each be limited to 0.28 pounds per MMBtu heat input.

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D.8.4 Preventive Maintenance Plan [326 IAC 2-7-5(12)]

A Preventive Maintenance Plan is required for the hot band line and cold roll line heaters and low NOx burners. Condition B.10 - Preventive Maintenance Plan contains the Permittee's obligation with regard to the preventive maintenance plan required by this condition.

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SECTION D.9

EMISSIONS UNIT OPERATION CONDITIONS (ANNEALING)

Emissions Unit Description:

Annealing Furnaces

- (a) Sixteen (16) low NOx burners, natural gas fired annealing furnaces and forty (40) annealing bases, permitted in 1996 for construction. Each furnace has a nominal heat input of four (4) MMBtu per hour, exhausting through roof pipes 30, 31 and 32.

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

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

D.9.1 Particulate Matter Emissions - Best Available Control Technology (BACT) [326 IAC 2-2]

Pursuant to CP 033-5625-00043, issued August 8, 1996 and 326 IAC 2-2 (BACT), the annealing furnaces shall burn natural gas only.

D.9.2 Nitrogen Oxides (NOx) - Best Available Control Technology (BACT) [326 IAC 2-2]

- (a) Pursuant to CP 033-5625-00043, issued August 8, 1996 and 326 IAC 2-2 (BACT), the NOx emissions from the annealing furnaces shall not exceed 200 pounds per MMCF of natural gas burned.
- (b) Pursuant to CP 033-5625-00043, issued August 8, 1996 and 326 IAC 2-2 (BACT), the annealing furnaces shall be equipped with low-NOx burners.

D.9.3 Particulate Emissions Limitation [326 IAC 6-2-4]

Pursuant to 326 IAC 6-2-4 (Particulate Emission Limitations for Sources of Indirect Heating), particulate emissions from each annealing furnace shall be limited to 0.28 pounds per MMBtu heat input.

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SECTION D.10 EMISSIONS UNIT OPERATION CONDITIONS (PAINT LINE)

Emissions Unit Description:

Paint Line (Coil Coating Line)

- (a) One (1) 2-side, 2-coat coil coating line, identified as Paint Line 1, permitted in 2002 for construction, using roll coating method, with a nominal capacity of 55,000 pounds per hour of the flat rolled steel, equipped with two (2) curing ovens with a combined nominal heat input capacity of 16 MMBtu per hour, using a 60 MMBtu per hour name plate rated heat input capacity burner equipped thermal oxidizer to control VOC emissions and exhausting to Stack 78.

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

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

D.10.1 Volatile Organic Compounds (VOC) and Hazardous Air Pollutants (HAP) Minor Limit [326 IAC 2-2][40 CFR 63.1]

Pursuant to SSM 033-15836-00043, issued December 31, 2002, to maintain the minor status for this modification, the VOC emissions shall be limited as follows:

- (a) For the 2-side, 2-coat, coil-coating line the input of VOC shall be limited to less than 3894 tons per twelve (12) consecutive month period, with the compliance status demonstrated at the end of each month.
- (b) The combined heat input rate for the two curing ovens shall not exceed 140,160 million Btu per twelve (12) consecutive month period and for the thermal oxidizer shall not exceed 525,600 million Btu per twelve (12) consecutive month period.
- (c) The thermal oxidizer controlling Paint Line 1 shall achieve 99% overall VOC control efficiency at all times Paint Line 1 is in operation.
- (d) Compliance with items (a), (b), and (c) combined, limits the VOC emissions from the 2-side, 2-coat coil coating line modification to less than forty (40) tons per 12 consecutive months period, with the compliance status demonstrated at the end of each month and renders the requirements of 326 IAC 2-2 Prevention of Significant Deterioration (PSD)) not applicable to this modification.
- (e) Pursuant to PSD SSM 033-23028-00043, issued October 26, 2007:
 - (1) The single HAP emissions from the coil coating line shall be limited to less than 10 tons per twelve (12) consecutive month period, with the compliance status demonstrated at the end of each month.
 - (2) The combined HAP emissions from the coil coating line shall be limited to less than 14.6 tons per twelve (12) consecutive month period, with compliance demonstrated at the end of each month.
 - (3) The thermal oxidizer for the coil coating line shall be in operation whenever the coating line is in operation.

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Compliance with these limits and requirements, in conjunction with HAP limits on SDI - IDD's rotary hearth furnace, SDI-IDD's RHF Fugitives Baghouse, SDI - IDD's submerged arc furnace, SDI - Flat Roll Division's pickle line, and the potential to emit from all other units, limits the source-wide PTE of a single HAP and a combination of HAPs to less than ten (10) and twenty-five (25) tons per twelve (12) consecutive month period, respectively, and renders this an area source under 40 CFR Part 63.

D.10.2 Volatile Organic Compounds (VOC) [326 IAC 8-2-4]

- (a) Pursuant to SSM 033-15836-00043, issued December 21, 2002 and 326 IAC 8-2-4 (Coil Coating Operations), the volatile organic compound (VOC) discharge to the atmosphere shall be limited to 2.6 pounds VOC per gallon of coating less water delivered to the coating applicator from prime and topcoat or single coat operations.
- (b) Pursuant to 326 IAC 8-1-2 (b), Paint Line 1 VOC emissions shall be limited to no greater than the equivalent emissions, 4.02 pounds of VOC per gallon of coating solids, allowed in (a).

The equivalency emissions are determined by the following equation:

$$E = L / (1 - (L/D))$$

Where:

- L = Applicable emission limit from 326 IAC 8 in pounds of VOC per gallon of coating.
- D = Density of VOC in coating in pounds per gallon of VOC.
- E = Equivalent emission limit in pounds of VOC per gallon of coating solids as applied.

Actual solvent density shall be used to determine the compliance status of the coil coating operation using the compliance methods in 326 IAC 8-1-2 (a).

- (c) Pursuant to 326 IAC 8-1-2(c) the overall control efficiency of the thermal oxidizer controlling Paint Line 1 shall be no less than the equivalent overall efficiency calculated by the following equation:

$$O = \frac{V - E}{V} \times 100$$

Where:

- V = The actual VOC content of the coating or, if multiple coatings are used, the daily weighted average VOC content of all coatings, as applied to the subject coating line as determined by the applicable test methods and procedures specified in 326 IAC 8-1-4 in units of pounds of VOC per gallon of coating solids as applied.
- E = Equivalent emission limit in pounds of VOC per gallon of coating solids as applied.
- O = Equivalent overall efficiency of the capture system and control device as a percentage.

D.10.3 Preventive Maintenance Plan [326 IAC 2-7-5(12)]

A Preventive Maintenance Plan is required for the thermal oxidizer associated with the coil coating operation. Condition B.10 - Preventive Maintenance Plan contains the Permittee's obligation with regard to the preventive maintenance plan required by this condition.

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

D.10.4 Permanent Total Enclosure

In order to maintain the minor status for the 2-side, 2-coat, coil coating line, the Permittee shall use a permanent total enclosure:

- (a) The capture system for the 2-side, 2-coat, coil coating line shall meet the criteria for a Permanent Total Enclosure as described in 40 CFR 51, Method 204.

-or-

- (b) Verify 100% capture through other methods as approved by the Commissioner.

D.10.5 Thermal Oxidizer

- (a) In order to demonstrate compliance with Condition D.10.2 - Volatile Organic Compounds (VOC), the thermal oxidizer shall be in operation and control emissions from Paint Line 1 at all times that Paint Line 1 is in operation.

D.10.6 Testing Requirements [326 IAC 3-6][326 IAC 2-7-6(1),(6)]

- (a) In order to demonstrate compliance with Conditions D.10.1(c) - Volatile Organic Compounds (VOC) and Hazardous Air Pollutants (HAP) Minor Limit and D.10.2 - Volatile Organic Compounds (VOC), the Permittee shall perform VOC thermal oxidizer control efficiency testing of the thermal oxidizer controlling Paint Line 1 utilizing methods as approved by the Commissioner at least once every five (5) years from the date of the most recent valid compliance demonstration.
- (b) In order to demonstrate compliance with Condition D.10.1(d) - Volatile Organic Compounds (VOC) and Hazardous Air Pollutants (HAP) Minor Limit, within 180 days of the end of the month in which it is determined that VOC emissions equal or exceed nine (9) tons for any twelve (12) consecutive month period, the Permittee shall perform inlet and outlet HAP testing on the thermal oxidizer controlling emissions from the coil coating line (Step #1). Testing shall be done utilizing Method 18 or other methods approved by the Commissioner, for the HAP used at the source that has the lowest destruction efficiency, as estimated by the manufacturer and approved by IDEM or using an estimation method approved by IDEM. If the VOC emissions equal or exceed nine (9) tons for any twelve (12) consecutive month period more than once in a period of 4.5 years, then a subsequent test shall be conducted within 5 years from the date of the last valid compliance demonstration (Step #2). If within 4.5 years after the second valid compliance demonstration the VOC emissions do not equal or exceed nine (9) tons for any twelve (12) consecutive month period, then the Permittee is not required to repeat inlet and outlet HAP testing until the VOC emissions equal or exceed nine (9) tons for any twelve (12) consecutive month period at which time the Permittee shall repeat Step #1. If within 4.5 years after the second valid compliance demonstration the VOC emissions equal or exceed nine (9) tons for any twelve (12) consecutive month period, then the Permittee shall repeat Step #2.
- (c) Testing shall be conducted in accordance with the provisions of 326 IAC 3-6 (Source Sampling Procedures). Condition C.9 - Performance Testing contains the Permittee's obligations with regard to the testing required by this condition.

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D.10.7 Volatile Organic Compounds (VOC) and Hazardous Air Pollutants (HAP)

- (a) The compliance status with Condition D.10.1 - Volatile Organic Compounds (VOC) and Hazardous Air Pollutants (HAP) Minor Limit shall be demonstrated at the end of each month. This shall be based on the total volatile organic compound emitted for the previous month, and adding it to previous 11 months total VOC emitted so as to arrive at the VOC emission rate for 12 consecutive months period. The VOC emissions for a month can be arrived at using the following equation for VOC usage:

$$\text{VOC emitted} = [(\text{VOC input}) \times (100\% - \text{Percent Overall VOC control efficiency of thermal oxidizer})]$$

Where VOC input is based on the formulation data supplied by the coating manufacturer. IDEM, OAQ reserves the authority to determine compliance using Method 24 in conjunction with the analytical procedures specified in 326 IAC 8-1-4.

- (b) If VOC emissions from the 2-side, 2-coat coil line (Paint Line 1) exceed nine (9) tons for any twelve consecutive month period, or if the Permittee chooses to demonstrate compliance with Condition D.10.1(d) - Volatile Organic Compounds (VOC) and Hazardous Air Pollutants (HAP) Minor Limit using the HAP control efficiency, the Permittee shall determine the single and combination HAP emissions for each month using the following methodology:

$$\text{HAP emitted} = [(\text{HAP input}) \times (100\% - \text{Percent Overall control efficiency of thermal oxidizer})]$$

Where:

HAP input is based on the formulation data supplied by the coating manufacturer.

Until the initial Method 18 stack test is performed, an overall control efficiency of 99% shall be used in the equation above.

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

D.10.8 Thermal Oxidizer Temperature [40 CFR 64]

- (a) A continuous monitoring system shall be calibrated, maintained, and operated on the thermal oxidizer controlling Paint Line 1 for measuring operating temperature. For the purpose of this condition, continuous means no less often than once per fifteen (15) minutes. The output of this system shall be recorded as 3-hour average.
- (b) The Permittee shall observe the duct pressure or fan amperage at least once per day when the thermal oxidizer is in operation. The duct pressure or fan amperage shall be maintained within the normal range as established in the most recent compliant stack test.
- (c) The Permittee shall determine the 3-hour average temperature from the most recent valid stack test that demonstrates compliance with the limits in Condition D.10.1(c) - Volatile Organic Compounds (VOC) and Hazardous Air Pollutants (HAP).
- (d) On and after the date the approved stack test results are available, the Permittee shall operate the thermal oxidizer at or above the 3-hour average temperature as observed during the compliant stack test.

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

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D.10.9 Record Keeping Requirements

- (a) To document the compliance status with Condition D.10.1 - Volatile Organic Compounds (VOC) and Hazardous Air Pollutants (HAP) Minor Limit, the Permittee shall maintain records in accordance with (1) through (3) below. Records maintained for (1) through (3) shall be taken monthly and shall be complete and sufficient to establish compliance with the VOC usage limits and/or the VOC emission limits established in Condition D.10.1 - Volatile Organic Compounds (VOC) and Hazardous Air Pollutants (HAP) Minor Limit.
 - (1) The VOC content of each coating material and solvent used less water.
 - (2) The amount of coating material and solvent used on a monthly basis.

Records may include, for example, purchase orders, invoices, and material safety data sheets (MSDS) or any other information necessary to verify the type and amount used.
 - (3) The total VOC usage for each month.
- (b) To document the compliance status with Conditions D.10.1 - Volatile Organic Compounds (VOC) and Hazardous Air Pollutants (HAP) Minor Limit and D.10.5 - Thermal Oxidizer, the Permittee shall maintain records in accordance with (1) through (2) below.
 - (1) The continuous temperature records (on a three hour average basis) for the thermal oxidizer and the average temperature used to demonstrate compliance during the most recent compliant stack test. The Permittee shall include in its continuous record when a temperature is not taken and the reason for the lack of a temperature recording (e.g. the process was not in operation).
 - (2) Daily records of the duct pressure or fan amperage. The Permittee shall include in its daily record when a pressure or amperage reading is not taken and the reason for the lack of pressure or amperage reading (e.g. the process did not operate that day).
- (c) If VOC emissions from the 2-side, 2-coat coil coating line equal or exceed nine (9) tons for any twelve (12) consecutive month period, then the Permittee shall determine the compliance status with the HAP limits in Condition D.10.1(d) - Volatile Organic Compounds (VOC) and Hazardous Air Pollutants (HAP) Minor Limit using the HAP control efficiency, the Permittee shall thereafter maintain records in accordance with (1) through (3) below. Records maintained for (1) through (3) shall be taken monthly and shall be complete and sufficient to establish compliance with the HAP emission limits established in Condition D.10.1(d) - Volatile Organic Compounds (VOC) and Hazardous Air Pollutants (HAP) Minor Limit.
 - (1) The amount and HAP content of each coating material and solvent used each month. Records may include, for example, inventory records and Material Safety Data Sheets (MSDS) necessary to verify the type and amount used.
 - (2) The single and combined HAP usage for each month.
 - (3) The weight of the single and combined HAPs emitted for each compliance period.
- (d) Condition C.18 - General Record Keeping Requirements contains the Permittee's obligations with regard to the records required by this condition.

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D.10.10 Reporting Requirements

Quarterly summaries of the information to document the compliance status with Conditions D.10.1- Volatile Organic Compounds (VOC) and Hazardous Air Pollutants (HAP) Minor Limit shall be submitted, using the reporting forms located at the end of this permit, or their equivalent, no later than thirty (30) days after the end of the quarter being reported. Condition C.18 - General Reporting Requirements contains the Permittee's obligation with regard to the reporting required by this condition. The report submitted by the Permittee does require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35).

D.10.11 General Provisions Relating to NSPS [326 IAC 12-1][40 CFR Part 60, Subpart A]

- (a) Pursuant to 40 CFR 60.1, the Permittee shall comply with the provisions of 40 CFR Part 60, Subpart A – General Provisions, which are incorporated by reference as 326 IAC 12-1, for the above listed emissions units, except as otherwise specified in 40 CFR Part 60, Subpart TT.
- (b) Pursuant to 40 CFR 60.19, the Permittee shall submit all required notifications and reports to:

Indiana Department of Environmental Management
Compliance and Enforcement Branch, Office of Air Quality
100 North Senate Ave.
MC61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

D.10.12 Metal Coil Surface Coating NSPS [40 CFR 60, Subpart TT][326 IAC 12]

Pursuant to 40 CFR Part 60, Subpart TT, the Permittee shall comply with the provisions of 40 CFR 60, Subpart TT, which are incorporated by reference as 326 IAC 12 (included as Attachment E of this permit), for the above listed emissions units as specified as follows:

- (1) 40 CFR 60.460
- (2) 40 CFR 60.461
- (3) 40 CFR 60.462 (a)(2), (a)(3), (a)(4)
- (4) 40 CFR 60.463 (a), (b), (c)(2), (c)(4)
- (5) 40 CFR 60.464
- (6) 40 CFR 60.465
- (7) 40 CFR 60.466

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SECTION D.11 EMISSIONS UNIT OPERATION CONDITIONS (SLAG PROCESSING)

Emissions Unit Description:

Slag Handling Operation

The following slag handling operations are owned and operated by Edward C. Levy Company - Butler Mill Service.

- (a) One (1) grizzly feeder with a nominal capacity of 300 tons per hour, permitted in 1994 for construction;
- (b) One (1) 36" conveyor (#9), with a nominal capacity of 350 tons per hour, permitted in 1994 for construction;
- (c) One (1) 42" conveyor (#7), with a nominal capacity of 350 tons per hour, permitted in 1994 for construction;
- (d) Two (2) 5' by 12' Screens, each with a nominal capacity of 350 tons per hour, permitted in 1994 for construction;
- (e) One (1) 36" conveyor (#6), with a nominal capacity of 193 tons per hour, constructed in 1994 and modified in 2014;
- (f) One (1) 30" conveyor (#5), with a nominal capacity of 250 tons per hour, permitted in 1994 for construction;
- (g) Three (3) 6' by 16' Screens, each with a nominal capacity of 250 tons per hour, permitted in 1994 for construction;
- (h) One (1) 48" Conveyor (#1), with a nominal capacity of 75 tons per hour, permitted in 1994 for construction;
- (i) One (1) 30" Stacker (#1), with a nominal capacity of 75 tons per hour, permitted in 1994 for construction;
- (j) One (1) 24" Stacker (#2), with a nominal capacity of 125 tons per hour, permitted in 1994 for construction;
- (k) One (1) 24" Conveyor (#12); with a nominal capacity of 40 tons per hour, permitted in 1994 for construction;
- (l) One (1) 24" Stacker (#4), with a nominal capacity of 50 tons per hour, permitted in 1994 for construction;
- (m) One (1) 4 ¼ Standard Crusher, with a nominal capacity of 50 tons per hour, permitted in 1994 for construction;
- (n) One (1) 30" Conveyor (#8), with a nominal capacity of 25 tons per hour; permitted in 1994 for construction;
- (o) Two (2) 30" Conveyors (#10 and #11), with a nominal capacity of 50 tons per hour each, permitted in 2003 for construction;

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- (p) One (1) jaw crusher, identified as J01, with a nominal capacity of 193 tons per hour, approved in 2014 for construction.
- (q) Aggregate Storage Piles.
- (r) Three (3) slag storage areas, approved in 2013 for construction, identified as Slag Area 1, 2, and 3, each with a nominal throughput of 400 tons per hour.

Fugitive emissions from parts of the slag handling operations are controlled as needed by water sprays.

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

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

D.11.1 Fugitive Dust Limitations (BACT) [326 IAC 2-2]

- (a) Pursuant to CP 033-3692-00043 issued October 7, 1994, the fugitive dust control plan shall be implemented to reduce emissions from slag processing by at least 95 percent (95%) based on a filterable PM10 emission basis.
- (b) Pursuant to CP 033-3692-00043, issued October 7, 1994, the fugitive dust control plan shall be implemented to reduce emissions from storage piles by eighty percent (80%).

D.11.2 Particulate Matter (PM) [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the particulate matter (PM) from the jaw crusher shall not exceed 53.12 pounds per hour when operating at a process weight rate of 193 tons per hour.

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

Interpolation of the data for the process weight rate up to 60,000 pounds per hour shall be accomplished by use of the equation:

$$E = 4.10 P^{0.67} \quad \text{where } E = \text{rate of emission in pounds per hour; and} \\ P = \text{process weight rate in tons per hour}$$

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

D.11.3 Record Keeping Requirements

- (a) To document the compliance status with Condition D.11.1 - Fugitive Dust Limitations (BACT), the Permittee shall maintain records of the times and type of fugitive dust control measures applied to the slag handling and storage piles, as specified in the Fugitive Dust Control Plan.
- (b) Condition C.18- General Record Keeping Requirements contains the Permittee's obligations with regard to the records required by this condition.

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SECTION D.12 EMISSIONS UNIT OPERATION CONDITIONS (FUGITIVE DUST)

Emissions Unit Description:

Fugitive Dust Sources

- (a) Paved roads,
- (b) Parking areas,
- (c) Unpaved roads, and
- (d) Traveled open areas.

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

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

D.12.1 Fugitive Dust Limitations (BACT) [326 IAC 2-2]

Pursuant to CP 033-3692-00043, issued October 7, 1994, the fugitive dust control plan shall be implemented to reduce emissions from the paved roads, parking lots, unpaved roads, and traveled open areas by eighty percent (80%).

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

D.12.2 Record Keeping Requirements

- (a) To document the compliance status with Condition D.12.1 - Fugitive Dust Limitations (BACT), the Permittee shall maintain records of the times and type of fugitive dust control measures (dust suppressants, water sprays and vacuum/sweeping of paved areas) used as specified in the Fugitive Dust Control Plan.
- (b) Condition C.18 General Record Keeping Requirements contains the Permittee's obligations with regard to the records required by this condition.

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SECTION D.13 EMISSIONS UNIT OPERATION CONDITIONS (EMERGENCY GENERATORS)

Emissions Unit Description:

Emergency Generators

- (a) Three (3) emergency diesel generators, identified as CM Watertreat, Main Watertreat (East), and Main Watertreat (West), approved in 1996, 1997, and 1995 for construction, each with a nominal capacity of 1500Kw (2011 hp). [40 CFR 63, Subpart ZZZZ]

Insignificant Activities

- (b) Emergency generators as follows: Diesel generators not exceeding one thousand six hundred (1,600) horsepower.
- (1) One (1) emergency diesel generator, identified as Melt Shop (Door 26), approved 2010 for construction, with a nominal capacity of 500 Kw (670 hp). [40 CFR 60, Subpart IIII][40 CFR 63, Subpart ZZZZ]

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

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

D.13.1 General Provisions Relating to National Emissions Standards for Hazardous Air Pollutants Under 40 CFR Part 63 [326 IAC 20-1][40 CFR 63, Subpart A]

Pursuant to 40 CFR 63.6565, 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 above listed emissions units, as specified in 40 CFR Part 63, Subpart ZZZZ, in accordance with the schedule in 40 CFR Part 63, Subpart ZZZZ.

D.13.2 Stationary Reciprocating Internal Combustion Engines NESHAP [40 CFR 63, Subpart ZZZZ][326 IAC 20-82]

Pursuant to 40 CFR Part 63, Subpart ZZZZ, the Permittee shall comply with the provisions of 40 CFR Part 63, Subpart ZZZZ, which are incorporated by reference as 326 IAC 20-82 (included as Attachment F to this permit), for the three (3) emergency diesel generators identified as CM Watertreat, Main Watertreat (East), and Main Watertreat (West).

- (1) 40 CFR 63.6585 (a), (c)
- (2) 40 CFR 63.6590 (a)(1)(iii), (a)(2)(iii), (c)(1)
- (3) 40 CFR 63.6595 (a)(1), (c)
- (4) 40 CFR 63.6603 (a)
- (5) 40 CFR 63.6604 (b)
- (6) 40 CFR 63.6605
- (7) 40 CFR 63.6625 (e)(3), (f), (h), (i)
- (8) 40 CFR 63.6640 (a), (b), (e), (f)(1), (f)(2), f(4)
- (9) 40 CFR 63.6645 (a)(5)
- (10) 40 CFR 63.6650 (a), (h)
- (11) 40 CFR 63.6655 (a), (d), (e)(2), (f)
- (12) 40 CFR 63.6660
- (13) 40 CFR 63.6665
- (14) 40 CFR 63.6675
- (15) Table 2d to 40 CFR 63, Subpart ZZZZ (item 4)

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- (16) Table 6 to 40 CFR 63, Subpart ZZZZ (item 4)
- (17) Table 7 to 40 CFR 63, Subpart ZZZZ (item 9)
- (18) Table 8 to 40 CFR 63, Subpart ZZZZ

D.13.3 General Provisions Relating to New Source Performance Standards Under 40 CFR Part 60 [326 IAC 12-1][40 CFR 60, Subpart A]

Pursuant to 40 CFR 60.1, the Permittee shall comply with the provisions of 40 CFR Part 60, Subpart A – General Provisions, which are incorporated by reference as 326 IAC 12, for the emergency diesel generator, identified as Melt Shop (Door 26), except as otherwise specified in 40 CFR 60, Subpart IIII.

D.13.4 Stationary Compression Ignition Internal Combustion Engines NSPS [40 CFR 60, Subpart IIII][326 IAC 12]

Pursuant to 40 CFR 60, Subpart IIII, the Permittee shall comply with the provisions of 40 CFR 60, Subpart IIII, which are incorporated by reference as 326 IAC 12, (included as Attachment G of this permit) for the emergency diesel generator, identified as Melt Shop (Door 26):

- (1) 40 CFR 60.4200(a)(2)(i), (a)(4)
- (2) 40 CFR 60.4205(b)
- (3) 40 CFR 60.4206
- (4) 40 CFR 60.4207(a), (b)
- (5) 40 CFR 60.4208
- (6) 40 CFR 60.4209(a)
- (7) 40 CFR 60.4211(a), (c), (f)
- (8) 40 CFR 60.4214(b)
- (9) 40 CFR 60.4218
- (10) 40 CFR 60.4219
- (11) Table 8 to 40 CFR 60, Subpart IIII

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SECTION D.14

EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

Insignificant Activities

- (a) Natural gas-fired combustion sources with heat input equal to or less than ten million (10,000,000) Btu per hour. [326 IAC 6-2-4]
 - (1) Eighteen (18) natural gas-fired heating units, each with a nominal rating of 250,000 Btu/hr. This is the total number of units for both Steel Dynamics, Inc. - Flat Roll Division and Steel Dynamics, Inc. - Iron Dynamics Division.

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

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

D.14.1 Particulate Emissions Limitation [326 IAC 6-2-4]

Pursuant to 326 IAC 6-2-4 (Particulate Emission Limitations for Sources of Indirect Heating), particulate emissions from each of the eighteen (18) natural gas-fired heating units shall be limited to 0.6 pounds per MMBtu heat input.

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SECTION D.15

EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

Insignificant Activities

- (c) A gasoline fuel transfer dispensing operation handling less than or equal to one thousand three hundred (1,300) gallons per day and filling storage tanks having a capacity equal to or less than ten thousand five hundred (10,500) gallons. Such storage tanks may be in a fixed location or on mobile equipment. This facility includes the following:
- (1) One (1) gasoline storage tank, approved in 2013 for construction, identified as T2 or Gasoline Storage Tank #2, with a nominal storage capacity of two thousand (2,000) gallons. [40 CFR 63, Subpart CCCCCC]
 - (2) One (1) gasoline storage tank, approved in 2013 for construction, identified as T3 or Gasoline Storage Tank #3, with a nominal storage capacity of five thousand (5,000) gallons. [40 CFR 63, Subpart CCCCCC]

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

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

D.15.1 Volatile Organic Compounds (VOC) [326 IAC 8-4-6]

In order to render the requirements of 326 IAC 8-4-6 not applicable for the Gasoline Storage Tanks #2 and #3 (or T2 and T3), the Permittee shall comply with the following:

- (a) The monthly gasoline throughput from the Gasoline Storage Tank #2 (or T2) shall be less than 10,000 gallons per month, with compliance determined at the end of each month.
- (b) The monthly gasoline throughput from the Gasoline Storage Tank #3 (or T3) shall be less than 10,000 gallons per month, with compliance determined at the end of each month.

Compliance with this limit shall render the requirements of 326 IAC 8-4-6 (Gasoline Dispensing Facilities) not applicable.

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

D.15.2 Record Keeping Requirements

- (a) To document the compliance status with Condition D.15.1 - Volatile Organic Compounds (VOC), the Permittee shall maintain records of the monthly gasoline throughput from Gasoline Storage Tanks #2 and #3 (or T2 and T3).
- (b) Condition C.18 General Record Keeping Requirements contains the Permittee's obligations with regard to the records required by this condition.

D.15.3 General Provisions Relating to National Emissions Standards for Hazardous Air Pollutants Under 40 CFR Part 63 [326 IAC 20-1][40 CFR 63, Subpart A]

Pursuant to 40 CFR 63.11130, the Permittee shall comply with the applicable provisions of 40 CFR Part 63, Subpart A – General Provisions, which are incorporated by reference as 326 IAC 20-1, for the above listed emissions units except as specified in 40 CFR Part 63, Subpart CCCCCC in accordance with the schedule in 40 CFR 63, Subpart CCCCCC.

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D.15.4 Source Category: Gasoline Dispensing Facilities NESHAP [40 CFR 63, Subpart CCCCCC]

Pursuant to 40 CFR Part 63, Subpart CCCCCC, the Permittee shall comply with the provisions of 40 CFR 63, Subpart CCCCCC (included as Attachment H of this permit), for the above listed emissions units, as specified below:

- (1) 40 CFR 63.11111 (a), (b), (e), (h), (i)
- (2) 40 CFR 63.11112 (a), (d)
- (3) 40 CFR 63.11113 (b)
- (4) 40 CFR 63.11115
- (5) 40 CFR 63.11116
- (6) 40 CFR 63.11125 (d)
- (7) 40 CFR 63.11130
- (8) 40 CFR 63.11132
- (9) Table 3

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SECTION D.16

EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

Insignificant Activities

- (d) Covered conveyors for solid raw material, including the following: [326 IAC 6-3-2]
 - (1) Coal or coke conveying of less than or equal to three hundred sixty (360) tons per day.
 - (2) Limestone conveying of less than or equal to seven thousand two hundred (7,200) tons per day for sources other than mineral processing plants constructed after August 31, 1983.

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

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

D.16.1 Particulate [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the allowable particulate emission pound per hour limitation from the insignificant activities listed in this section shall be calculated using the following equation:

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

$$E = 4.10 P^{0.67} \quad \text{where } E = \text{rate of emission in pounds per hour and} \\ P = \text{process weight rate in tons per hour}$$

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:

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

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**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE AND ENFORCEMENT BRANCH
PART 70 OPERATING PERMIT
CERTIFICATION**

Source Name: Steel Dynamics, Inc. - Flat Roll Division
Source Address: 4500 County Road 59, Butler, Indiana 46721
Part 70 Permit No.: T033-30061-00043

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

Please check what document is being certified:

- ☐ Annual Compliance Certification Letter
- ☐ Test Result (specify)
- ☐ Report (specify)
- ☐ Notification (specify)
- ☐ Affidavit (specify)
- ☐ Other (specify)

I certify that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

Signature:

Printed Name:

Title/Position:

Phone:

Date:

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INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE AND ENFORCEMENT BRANCH
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251
Phone: (317) 233-0178
Fax: (317) 233-6865

PART 70 OPERATING PERMIT
EMERGENCY OCCURRENCE REPORT

Source Name: Steel Dynamics, Inc. - Flat Roll Division
Source Address: 4500 County Road 59, Butler, Indiana 46721
Part 70 Permit No.: T033-30061-00043

This form consists of 2 pages

Page 1 of 2

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

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

Facility/Equipment/Operation:
Control Equipment:
Permit Condition or Operation Limitation in Permit:
Description of the Emergency:
Describe the cause of the Emergency:

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

Page 2 of 2

Date/Time Emergency started:
Date/Time Emergency was corrected:
Was the facility being properly operated at the time of the emergency? Y N
Type of Pollutants Emitted: TSP, PM-10, SO ₂ , VOC, NO _x , CO, Pb, other:
Estimated amount of pollutant(s) emitted during emergency:
Describe the steps taken to mitigate the problem:
Describe the corrective actions/response steps taken:
Describe the measures taken to minimize emissions:
If applicable, describe the reasons why continued operation of the facilities are necessary to prevent imminent injury to persons, severe damage to equipment, substantial loss of capital investment, or loss of product or raw materials of substantial economic value:

Form Completed by: _____

Title / Position: _____

Date: _____

Phone: _____

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**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE AND ENFORCEMENT BRANCH
PART 70 OPERATING PERMIT
QUARTERLY DEVIATION AND COMPLIANCE MONITORING REPORT**

Source Name: Steel Dynamics, Inc. - Flat Roll Division
Source Address: 4500 County Road 59, Butler, Indiana 46721
Part 70 Permit No.: T033-30061-00043

Months: _____ to _____ Year: _____

Page 1 of 2

This report shall be submitted quarterly based on a calendar year. Proper notice submittal under Section B –Emergency Provisions satisfies the reporting requirements of paragraph (a) of Section C- General Reporting. Any deviation from the requirements of this permit, the date(s) of each deviation, the probable cause of the deviation, and the response steps taken must be reported. A deviation required to be reported pursuant to an applicable requirement that exists independent of the permit, shall be reported according to the schedule stated in the applicable requirement and does not need to be included in this report. Additional pages may be attached if necessary. If no deviations occurred, please specify in the box marked "No deviations occurred this reporting period".

☐ NO DEVIATIONS OCCURRED THIS REPORTING PERIOD.

☐ THE FOLLOWING DEVIATIONS OCCURRED THIS REPORTING PERIOD

Permit Requirement (specify permit condition #)

Date of Deviation:

Duration of Deviation:

Number of Deviations:

Probable Cause of Deviation:

Response Steps Taken:

Permit Requirement (specify permit condition #)

Date of Deviation:

Duration of Deviation:

Number of Deviations:

Probable Cause of Deviation:

Response Steps Taken:

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

Form Completed by: _____

Title / Position: _____

Date: _____

Phone: _____

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

Part 70 Quarterly Report

Source Name: Steel Dynamics, Inc. - Flat Roll Division
Source Address: 4500 County Road 59, Butler, IN 46721
Part 70 Permit No.: T033-30061-00043
Facility: 2-side, 2-coat, coil coating line (paint line)
Parameter: single HAP emission
Limits: Less than 10 tons per 12 consecutive month period with compliance demonstrated on a monthly basis

QUARTER : _____ YEAR: _____

Month	Column 1	Column 2	Column 1 + Column 2
	This Month	Previous 11 Months	12 Month Total

Submitted by: _____
Title / Position: _____
Signature: _____
Date: _____
Phone: _____

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

Part 70 Quarterly Report

Source Name: Steel Dynamics, Inc. - Flat Roll Division
Source Address: 4500 County Road 59, Butler, IN 46721
Part 70 Permit No.: T033-30061-00043
Facility: 2-side, 2-coat, coil coating line (paint line)
Parameter: combination of HAP emissions
Limits: 14.60 tons per 12 consecutive month period with compliance demonstrated on a monthly basis

QUARTER : _____ YEAR: _____

Month	Column 1	Column 2	Column 1 + Column 2
	This Month	Previous 11 Months	12 Month Total

Submitted by: _____
Title / Position: _____
Signature: _____
Date: _____
Phone: _____

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

Part 70 Quarterly Report

Source Name: Steel Dynamics, Inc. - Flat Roll Division
Source Address: 4500 County Road 59, Butler, IN 46721
Part 70 Permit No.: T033-30061-00043
Facility: 2-side, 2-coat, coil coating line (paint line)
Parameter: VOC usage for the coil coating line (paint line)
Limits: 3894 tons per 12 consecutive month period with compliance demonstrated on a monthly basis

QUARTER : _____ YEAR: _____

Month	Column 1	Column 2	Column 1 + Column 2
	This Month	Previous 11 Months	12 Month Total

Submitted by: _____
Title / Position: _____
Signature: _____
Date: _____
Phone: _____

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

Part 70 Quarterly Report

Source Name: Steel Dynamics, Inc. - Flat Roll Division
Source Address: 4500 County Road 59, Butler, IN 46721
Part 70 Permit No.: T033-30061-00043
Facility: Entire Source
Parameter: combination of HAP emissions
Limits: less than twenty-five (25) tons per twelve (12) consecutive month period with compliance demonstrated on a monthly basis

QUARTER : _____ YEAR: _____

Month	Column 1	Column 2	Column 1 + Column 2
	This Month	Previous 11 Months	12 Month Total

Submitted by: _____
Title / Position: _____
Signature: _____
Date: _____
Phone: _____

DRAFT

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

Part 70 Quarterly Report

Source Name: Steel Dynamics, Inc. - Flat Roll Division
Source Address: 4500 County Road 59, Butler, IN 46721
Part 70 Permit No.: T033-30061-00043
Facility: Entire Source
Parameter: chromium emissions
Limits: less than ten (10) tons per twelve (12) consecutive month period with compliance demonstrated on a monthly basis

QUARTER : _____ YEAR: _____

Month	Column 1	Column 2	Column 1 + Column 2
	This Month	Previous 11 Months	12 Month Total

Submitted by: _____
Title / Position: _____
Signature: _____
Date: _____
Phone: _____

DRAFT

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

Part 70 Quarterly Report

Source Name: Steel Dynamics, Inc. - Flat Roll Division
Source Address: 4500 County Road 59, Butler, IN 46721
Part 70 Permit No.: T033-30061-00043
Facility: Entire Source
Parameter: manganese emissions
Limits: less than ten (10) tons per twelve (12) consecutive month period with compliance demonstrated on a monthly basis

QUARTER : _____ YEAR: _____

Month	Column 1	Column 2	Column 1 + Column 2
	This Month	Previous 11 Months	12 Month Total

Submitted by: _____
Title / Position: _____
Signature: _____
Date: _____
Phone: _____

DRAFT

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

Part 70 Quarterly Report

Source Name: Steel Dynamics, Inc. - Flat Roll Division
Source Address: 4500 County Road 59, Butler, IN 46721
Part 70 Permit No.: T033-30061-00043
Facility: Entire Source
Parameter: Ethylbenzene emissions
Limits: less than ten (10) tons per twelve (12) consecutive month period with compliance demonstrated on a monthly basis

QUARTER : _____ YEAR: _____

Month	Column 1	Column 2	Column 1 + Column 2
	This Month	Previous 11 Months	12 Month Total

Submitted by: _____
Title / Position: _____
Signature: _____
Date: _____
Phone: _____

DRAFT

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

Part 70 Quarterly Report

Source Name: Steel Dynamics, Inc. - Flat Roll Division
Source Address: 4500 County Road 59, Butler, IN 46721
Part 70 Permit No.: T033-30061-00043
Facility: Entire Source
Parameter: Glycol Ethers emissions
Limits: less than ten (10) tons per twelve (12) consecutive month period with compliance demonstrated on a monthly basis

QUARTER : _____ YEAR: _____

Month	Column 1	Column 2	Column 1 + Column 2
	This Month	Previous 11 Months	12 Month Total

Submitted by: _____
Title / Position: _____
Signature: _____
Date: _____
Phone: _____

DRAFT

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

Part 70 Quarterly Report

Source Name: Steel Dynamics, Inc. - Flat Roll Division
Source Address: 4500 County Road 59, Butler, IN 46721
Part 70 Permit No.: T033-30061-00043
Facility: Entire Source
Parameter: Isophorone emissions
Limits: less than ten (10) tons per twelve (12) consecutive month period with compliance demonstrated on a monthly basis

QUARTER : _____ YEAR: _____

Month	Column 1	Column 2	Column 1 + Column 2
	This Month	Previous 11 Months	12 Month Total

Submitted by: _____
Title / Position: _____
Signature: _____
Date: _____
Phone: _____

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

Part 70 Quarterly Report

Source Name: Steel Dynamics, Inc. - Flat Roll Division
Source Address: 4500 County Road 59, Butler, IN 46721
Part 70 Permit No.: T033-30061-00043
Facility: Entire Source
Parameter: Xylene emissions
Limits: less than ten (10) tons per twelve (12) consecutive month period with compliance demonstrated on a monthly basis

QUARTER : _____ YEAR: _____

Month	Column 1	Column 2	Column 1 + Column 2
	This Month	Previous 11 Months	12 Month Total

Submitted by: _____
Title / Position: _____
Signature: _____
Date: _____
Phone: _____

DRAFT

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

Part 70 Quarterly Report

Source Name: Steel Dynamics, Inc. - Flat Roll Division
Source Address: 4500 County Road 59, Butler, IN 46721
Part 70 Permit No.: T033-30061-00043
Facility: Entire Source
Parameter: Naphthalene emissions
Limits: less than ten (10) tons per twelve (12) consecutive month period with compliance demonstrated on a monthly basis

QUARTER : _____ YEAR: _____

Month	Column 1	Column 2	Column 1 + Column 2
	This Month	Previous 11 Months	12 Month Total

Submitted by: _____
Title / Position: _____
Signature: _____
Date: _____
Phone: _____

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

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

Source Description and Location
--

Source Name:	Steel Dynamics, Inc. - Flat Roll Division
Source Location:	4500 County Road 59, Butler, IN 46721
County:	DeKalb
SIC Code:	3312 (Steel Works, Blast Furnaces (Including Coke Ovens), and Rolling Mills)
Operation Permit No.:	T033-30061-00043
Operation Permit Issuance Date:	December 30, 2014
Significant Permit Modification No.:	033-37274-00043
Permit Reviewer:	Thomas Olmstead/Heath Hartley

Source Definition

The source consists of:

- (a) Steel Dynamics, Inc. - Flat Roll Division (SDI-Flat Roll), located at 4500 County Road 59, Butler, Indiana 46721; and
- (b) Steel Dynamics, Inc. - Iron Dynamics Division (SDI-IDD), located at 4500 County Road 59, Butler, Indiana 46721.

Separate Part 70 permits have been issued to Steel Dynamics, Inc. - Flat Roll Division (033-00043) and Steel Dynamics, Inc. - Iron Dynamics Division (033-00076), solely for administrative purposes. For this permit, the Permittee is Steel Dynamics, Inc. - Flat Roll Division, the primary operation.

Existing Approvals

The source was issued Part 70 Operating Permit Renewal No. T033-30061-00043 on December 30, 2014. The source has since received the following approvals:

Permit Type	Permit Number	Issuance Date
Administrative Amendment	033-34896-00043	December 30, 2014
Significant Source Modification	033-34898-00043	June 15, 2015
Significant Permit Modification	033-34947-00043	September 18, 2015
Significant Source Modification	033-34498-00043	November 5, 2015
Significant Permit Modification	033-35411-00043	November 25, 2015

County Attainment Status

The source is located in DeKalb County.

Pollutant	Designation
SO ₂	Better than national standards.
CO	Unclassifiable or attainment effective November 15, 1990.
O ₃	Unclassifiable or attainment effective July 20, 2012, for the 2008 8-hour ozone standard. ¹
PM _{2.5}	Unclassifiable or attainment effective April 5, 2005, for the annual PM _{2.5} standard.
PM _{2.5}	Unclassifiable or attainment effective December 13, 2009, for the 24-hour PM _{2.5} standard.
PM ₁₀	Unclassifiable effective November 15, 1990.
NO ₂	Cannot be classified or better than national standards.
Pb	Unclassifiable or attainment effective December 31, 2011.
¹ Unclassifiable or attainment effective October 18, 2000, for the 1-hour ozone standard which was revoked effective June 15, 2005.	

- (a) **Ozone Standards**
Volatile organic compounds (VOC) and Nitrogen Oxides (NO_x) are regulated under the Clean Air Act (CAA) for the purposes of attaining and maintaining the National Ambient Air Quality Standards (NAAQS) for ozone. Therefore, VOC and NO_x emissions are considered when evaluating the rule applicability relating to ozone. DeKalb County has been designated as attainment or unclassifiable for ozone. Therefore, VOC and NO_x emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.
- (b) **PM_{2.5}**
DeKalb County has been classified as attainment for PM_{2.5}. Therefore, direct PM_{2.5}, SO₂, and NO_x emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.
- (c) **Other Criteria Pollutants**
DeKalb County has been classified as attainment or unclassifiable in Indiana for all the other criteria pollutants. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.

Fugitive Emissions

Since this source is classified as an iron and steel mill plant, it is considered one (1) of the twenty-eight (28) listed source categories, as specified in 326 IAC 2-2, 326 IAC 2-3, or 326 IAC 2-7. Therefore, fugitive emissions are counted toward the determination of PSD, Emission Offset, and Part 70 Permit applicability.

Greenhouse Gas (GHG) Emissions

On June 23, 2014, in the case of *Utility Air Regulatory Group v. EPA*, cause no. 12-1146, (available at http://www.supremecourt.gov/opinions/13pdf/12-1146_4g18.pdf) the United States Supreme Court ruled that the U.S. EPA does not have the authority to treat greenhouse gases (GHGs) as an air pollutant for the purpose of determining operating permit applicability or PSD Major source status. On July 24, 2014, the U.S. EPA issued a memorandum to the Regional Administrators outlining next steps in permitting decisions in light of the Supreme Court's decision. U.S. EPA's guidance states that U.S. EPA will no longer require PSD or Title V permits for sources "previously classified as 'Major' based solely on greenhouse gas emissions."

The Indiana Environmental Rules Board adopted the GHG regulations required by U.S. EPA at 326 IAC 2-2-1(zz), pursuant to Ind. Code § 13-14-9-8(h) (Section 8 rulemaking). A rule, or part of a rule, adopted under Section 8 is automatically invalidated when the corresponding federal rule, or part of the rule, is invalidated. Due to the United States Supreme Court Ruling, IDEM, OAQ cannot consider GHG emissions to determine operating permit applicability or PSD applicability to a source or modification.

Source Status - Existing Source

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:

	Source-Wide Emissions Before Modification (ton/year)											
Process / Emission Unit	PM	PM ₁₀	PM _{2.5}	SO ₂	NO _x	VOC	CO	Lead	Fluorides	Mercury	Single HAP*	Combined HAPs
Total for Source	>100	>100	>100	>100	>100	>100	>100	<25	<100	<100	<10	<25
PSD Major Source Thresholds	100	100	100	100	100	100	100	25	100	100	10	25
*Single highest source-wide HAP.												

- This existing source is a major stationary source, under PSD (326 IAC 2-2), because a PSD regulated pollutant is emitted at a rate of 100 tons per year or more, and it is one of the twenty-eight (28) listed source categories, as specified in 326 IAC 2-2-1(ff)(1).
- This existing source is not a major source of HAPs, as defined in 40 CFR 63.2, because HAPs emissions are less than ten (10) tons per year for any single HAP and less than twenty-five (25) tons per year of a combination of HAPs. Therefore, this source is an area source under Section 112 of the Clean Air Act (CAA).
- These emissions are based on TSD 033-34511-00043.

Description of Proposed Modification

The Office of Air Quality (OAQ) has reviewed an application, submitted by Steel Dynamics, Inc. - Flat Roll Division on June 8, 2016, relating to changes in the scope of the Cold Mill Expansion (CME), previously permitted in SSM 033-34898-00043, issued on June 15, 2015. The source requests the following changes related to the CME project:

- Removal of Paint Line 3, which was added in SSM 033-34898-00043, but never constructed. Paint Line 3 will be constructed at a different facility outside of Indiana and is therefore not needed at Steel Dynamics, Inc. - Flat Roll Division.
- Addition of eight (8) 1.86 MMBtu/hr natural gas-fired burners (totaling 14.88 MMBtu/hr) to the Galvanizing Line 1. The addition of these eight burners will allow Galvanizing Line 1 to produce a wider array of products, matching the product mix capabilities of the new Galvanizing Line 2. This addition does not result in overall increase in production upstream at the Melt Shop or at the Hot Mill.
- Adjustment of the particulate limits for the Hot Band Leveler, which was added in SSM 033-34898-00043.

The following is a list of the proposed emission units:

New burners Galvanizing Line 1:

- Eight (8) Preheat Burners, approved in 2016 for construction, with a total nominal rated heat input capacity of 14.88 MMBtu/hr, exhausting through Stack 19.

Project Aggregation (SSM 033-34898-00043):

Steel Dynamics, Inc. - Flat Roll Division was issued SSM 033-34898-00043 on June 15, 2015 authorizing the expansion of the existing cold mill. The cold rolled galvanizing line included the installation of new burners for Galvanizing Line 2. The addition of the eight burners will allow Galvanizing Line 1 to produce a wider array of products, matching the product mix capabilities of the new Galvanizing Line 2. This current proposed modification would not occur on Galvanizing Line 1 if this line did not have to match the product mix capabilities of Galvanizing Line 2. Therefore, these two projects have been determined to be related and this proposed modification is aggregated with SSM 033-34898-00043.

Emission Units and Pollution Control Equipment Removed From the Permit

The source has removed the following emission units:

- (a) One (1) 2-side, 2-coat coil coating line, identified as Paint Line 3, approved in 2015 for construction, using roll coating method, with a nominal capacity of 55,000 pounds per hour of the flat rolled steel, equipped with two (2) curing ovens, one of which will be heated with burners with a nominal heat input rating of 16 MMBtu per hour and equipped with low NO_x burners, and a 60 MMBtu per hour thermal oxidizer to control VOC emissions. Heat generated from the thermal oxidizer will be used to heat the second oven. Paint Line 3 exhausts to Stack Paint 3.

Enforcement Issues

There are no pending enforcement actions related to this modification.

Emission Calculations

See Appendix A of this Technical Support Document for detailed emission calculations.

Permit Level Determination – Part 70 Modification to an Existing Source

Pursuant to 326 IAC 2-1.1-1(12), 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 tables are used to determine the appropriate permit level under 326 IAC 2-7-10.5 and 326 IAC 2-7-11. This table reflects the PTE before controls. Control equipment is not considered federally enforceable until it has been required in a federally enforceable permit. If the control equipment has been determined to be integral, the table reflects the PTE after consideration of the integral control device.

	PTE Change of the Modified Emission Unit(s)/Process (ton/year)								
	PM	PM ₁₀	PM _{2.5}	SO ₂	NO _x	VOC	CO	Single HAP Formaldehyde	Combined HAPs
8 Additional Preheat Burners at Galvanizing Line 1									
PTE Before Modification	0.06	0.24	0.24	0.02	2.19	0.18	2.69	2.4E-03	2.8E-03
PTE After Modification	0.18	0.73	0.73	0.06	6.56	0.53	8.06	7.2E-03	8.5E-03
PTE Increase From Modification	0.12	0.49	0.49	0.04	4.37	0.35	5.38	4.8E-03	5.6E-03

- (a) **Approval to Construct**
This modification is not subject to the requirements of 326 IAC 2-7-10.5 (Part 70 Permits; Source Modifications), because the potential to emit of any regulated pollutant is below the levels specified in 326 IAC 2-7-10.5 and it does not otherwise qualify as a source modification.
- (b) **Approval to Operate**
Pursuant to 326 IAC 2-7-12(d)(1), this change to the permit is being made through a Significant Permit Modification because this modification does not qualify as a Minor Permit Modification or as an Administrative Amendment.

PSD Evaluation – Actual to Potential (ATP) and Actual to Projected Actual (ATPA) Emissions Test
--

- (a) **“Hybrid” Applicability Test: ATP and ATPA**
The source opted to use a Hybrid applicability test, specified in 326 IAC 2-2-2(d)(5), to demonstrate that the modification is not subject to PSD major review. A Hybrid applicability test uses both the Actual to Potential (ATP) for new emissions units and Actual to Projected Actual (ATPA) for existing emissions units affected by the modification.

The source has provided information and emission calculations as part of the application for this Hybrid test. IDEM, OAQ reviewed the emission calculations provided by the source to verify the emissions factors and methodology used, but has not made any determination regarding the validity and accuracy of certain information such as actual throughput, actual usage and actual hours of operation.

The source will be required to keep records and report in accordance with the requirements of 326 IAC 2-2-8 (Prevention of Significant Deterioration (PSD) Requirements: Source Obligation).

- (b) **New Emissions Units and Existing Emissions Units Affected by the Modification**
This project involves both new emissions units and existing emission units affected by the modification.
 - (1) **New Emissions Unit**
Pursuant to 326 IAC 2-2-1(t)(1), a new emissions unit is any emissions unit that is, or will be, newly constructed and that has existed for less than two (2) years from the date the emissions unit first operated.
 - (2) **Existing Emissions Unit Affected by the Modification**
The following emissions units will be considered existing for the purpose of ATPA:
 - (A) The new emission units, which are replacing existing emissions units, which are nearly equal capacity that serves the same purpose without increasing the emissions. A replacement emissions unit is an existing emissions unit. [326 IAC 2-2-1(t)(2)].
 - (B) Modified emissions units.
 - (C) Emissions Units that will not be modified; however, they will experience increased or decreased utilization as part of this project.

- (c) **Hybrid Test: ATP and ATPA Summary**
Since this project involves both new emissions units and existing emission units, pursuant to 326 IAC 2-2-2(d)(5), an Hybrid applicability test has been conducted. The emissions increase of the project is the sum of the emissions increase for each emissions unit, calculated using the Actual to Potential (ATP) evaluation for the new units and the Actual to Projected Actual (ATPA) evaluation for each existing emissions unit.

Pursuant to 326 IAC 2-2-1(pp)(A)(iii), the source may exclude, in calculating any increase in emissions that result from the particular project, that portion of the unit's emissions following the project that an existing unit could have accommodated during the consecutive 24-month period

used to establish the baseline actual emissions and that are also unrelated to the particular project, including any increased utilization due to product demand growth.

$$\text{Hybrid Applicability Test} = \text{ATP}_{(\text{new unit})} + \text{ATPA}_{(\text{existing unit})}$$

Where:

$$\begin{aligned} \text{ATP}_{(\text{new unit})} &= \text{PTE} - 0 \\ \text{ATPA}_{(\text{existing unit})} &= \text{Projected Actual Emissions} - \text{Baseline Emissions} \\ &\quad - \text{Could Have Accommodated Emissions/Demand Growth Exclusions} \end{aligned}$$

See Appendix A of this Technical Support Document for detailed emission calculations.

The table below summarizes the potential to emit, reflecting all limits, of the emission units, with updated emissions shown as **bold** values and previous emissions shown as ~~strikethrough~~ values.

Potential to Emit (ton/yr) SSM 033-34898-00043 as revised by SPM 033-37374-00043									
Process / Emission Unit	PM	PM ₁₀	PM _{2.5}	SO ₂	NO _x	VOC	CO	Pb	Hg
<i>New Units:</i>									
Pickling Line 2	17.08	2.85	0.58	0.00	0.00	0.00	0.00	0.00	0.00
Reversing Mill 2	5.00	5.00	2.50	0.00	0.00	0.00	0.00	0.00	0.00
Pickling Line Boilers (#4, #5 & #6)	0.33	1.33	1.33	0.11	6.25	0.96	14.72	8.76E-05	4.56E-05
Paint Line 3 - Curing Oven	0.13	0.52	0.52	0.04	2.45	0.38	5.77	3.44E-05	1.79E-05
Paint Line 3 - Thermal Oxidizer	0.49	1.96	1.96	0.15	9.20	1.42	21.64	1.29E-04	6.70E-05
Paint Line 3	0.00	0.00	0.00	0.00	0.00	29.00	0.00	0.00	0.00
ATPA for Affected Units (<i>EAF #1 and #2</i>)									
Baseline Actual Emissions (<i>EAF #1 and #2</i>)	15.42	62.25	62.25	302.35	770.98	196.52	3023.45	488.29	0.17
Projected Actual Emissions (<i>EAF #1 and #2</i>)	16.84	67.99	67.99	330.24	842.11	214.66	3302.40	533.34	0.18
Could Have Accommodated (<i>EAF #1 and #2</i>)	1.92	7.76	7.76	37.68	96.08	24.49	376.78	60.85	0.02
Total ATPA Emissions (<i>EAF #1 and #2</i>)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ATPA for Affected Units (<i>Existing Reversing Mill</i>)									
Baseline Actual Emissions (<i>Reversing Mill</i>)	25.90	25.90	12.95	--	--	--	--	--	--
Projected Actual Emissions (<i>Reversing Mill</i>)	29.69	29.69	14.84	--	--	--	--	--	--
Could Have Accommodated	2.91	2.91	1.46	--	--	--	--	--	--

Potential to Emit (ton/yr) SSM 033-34898-00043 as revised by SPM 033-37374-00043									
Process / Emission Unit	PM	PM ₁₀	PM _{2.5}	SO ₂	NO _x	VOC	CO	Pb	Hg
<i>(Reversing Mill)</i>									
Total ATPA Emissions <i>(Existing Reversing Mill)</i>	0.88	0.88	0.44	--	--	--	--	--	--
<i>ATPA for Affected Units (Galvanizing Line 1 - Hot Band)</i>									
Baseline Actual Emissions	0.38	1.51	1.51	0.12	13.58	1.09	16.70	9.94E-05	5.17E-05
Adjusted baseline	0.31	1.24	1.24	0.10	11.11	0.89	13.66	8.13E-05	4.23E-05
existing units	0.31	1.24	1.24	0.10	11.11	0.89	13.66	8.13E-05	4.23E-05
new units	0.25 0.37	1.01 1.50	1.01 1.50	0.18 0.12	9.09 13.47	0.73 1.08	11.18 16.55	6.65E-05 9.85E-05	3.46E-05 5.12E-05
Projected Actual Emissions	0.56 0.68	2.25 2.73	2.25 2.73	0.18 0.22	20.26 24.58	1.63 1.98	24.94 30.21	1.48E-04 1.80E-04	7.71E-05 9.35E-05
Total ATPA Emissions <i>(Galvanizing Line 1 - Hot Band)</i>	0.25 0.37	1.01 1.50	1.01 1.50	0.08 0.12	9.09 13.47	0.73 1.08	11.18 16.55	6.65E-05 9.85E-05	3.46E-05 5.12E-05
<i>ATPA for Affected Units (Galvanizing Line 2 - Cold Rolled)</i>									
Baseline Actual Emissions	0.31	1.25	1.25	0.10	11.27	0.91	13.86	8.25E-05	4.29E-05
Adjusted baseline	0.25	0.99	0.99	0.08	8.93	0.72	10.97	6.53E-05	3.40E-05
existing units	0.25	0.99	0.99	0.08	8.93	0.72	10.97	6.53E-05	3.40E-05
new units	0.32	1.29	1.29	0.10	11.57	0.93	14.23	8.47E-05	4.40E-05
Projected Actual Emissions	0.57	2.28	2.28	0.18	20.50	1.65	25.20	1.50E-04	7.80E-05
Total ATPA Emissions <i>(Galvanizing Line 2 - Cold Rolled)</i>	0.32	1.29	1.29	0.10	11.57	0.93	14.23	8.47E-05	4.40E-05
<i>ATPA for Affected Units (Existing Paint Line)¹</i>									
Baseline Actual Emissions	--	--	--	--	--	1,991.08	--	--	--
Projected Actual Emissions	--	--	--	--	--	2,048.48	--	--	--
Could Have Accommodated	--	--	--	--	--	57.40	--	--	--
Total ATPA Emissions <i>(Existing Paint Line)</i>	--	--	--	--	--	0.00	--	--	--
<i>ATPA for Affected Units (Existing Paint Line Combustion)</i>									
Baseline Actual Emissions	0.30	1.20	1.20	0.10	7.92	0.87	13.31	7.92E-05	4.12E-05
Projected Actual Emissions	0.31	1.24	1.24	0.10	8.15	0.90	13.69	8.15E-05	4.24E-05
Could Have Accommodated	0.01	0.03	0.03	0.00	0.23	0.03	0.38	2.28E-06	1.19E-06
Total ATPA Emissions <i>(Existing Paint Line Combustion)</i>	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hot Band Leveler	0.04 0.96	0.04 0.96	0.04 0.96	0.00	0.00	0.00	0.00	0.00	0.00
Total New Units	23.03 22.41	11.66 9.18	6.89 4.41	0.30 0.11	17.91 6.25	31.76 0.96	42.13 14.72	2.51E-044 8.76E-05	1.30E-04 4.56E-05
Total ATPA Emissions Increase	1.28 2.54	2.38 4.62	1.94 4.19	0.12 0.22	13.21 25.04	1.06 2.02	16.24 30.78	9.67E-05 1.83E-04	5.03E-05 9.53E-05

Potential to Emit (ton/yr) SSM 033-34898-00043 as revised by SPM 033-37374-00043									
Process / Emission Unit	PM	PM ₁₀	PM _{2.5}	SO ₂	NO _x	VOC	CO	Pb	Hg
Total for Modification	24.31 24.95	14.04 13.81	8.84 8.60	0.42 0.32	31.12 31.30	32.82 2.98	58.37 45.50	3.47E-04 2.71E-04	1.81E-04 1.41E-04
Significant Level	25	15	10	40	40	40	100	0.6	0.1
1. The existing Paint Line 1 projected actuals are not going to increase beyond what was previously projected in SSM 033-34898-00043.									

The table below summarizes the potential to emit, reflecting all limits, of the emission units. (Note: the table below was generated from the above table, with bold text un-bolded and strikethrough text deleted).

Potential to Emit (ton/yr)									
Process / Emission Unit	PM	PM ₁₀	PM _{2.5}	SO ₂	NO _x	VOC	CO	Pb	Hg
<i>New Units:</i>									
Pickling Line 2	17.08	2.85	0.58	0.00	0.00	0.00	0.00	0.00	0.00
Reversing Mill 2	5.00	5.00	2.50	0.00	0.00	0.00	0.00	0.00	0.00
Pickling Line Boilers (#4, #5 & #6)	0.33	1.33	1.33	0.11	6.25	0.96	14.72	8.76E-05	4.56E-05
ATPA for Affected Units (<i>EAF #1 and #2</i>)									
Baseline Actual Emissions (<i>EAF #1 and #2</i>)	15.42	62.25	62.25	302.35	770.98	196.52	3023.45	488.29	0.17
Projected Actual Emissions (<i>EAF #1 and #2</i>)	16.84	67.99	67.99	330.24	842.11	214.66	3302.40	533.34	0.18
Could Have Accommodated (<i>EAF #1 and #2</i>)	1.92	7.76	7.76	37.68	96.08	24.49	376.78	60.85	0.02
Total ATPA Emissions (<i>EAF #1 and #2</i>)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ATPA for Affected Units (<i>Existing Reversing Mill</i>)									
Baseline Actual Emissions (<i>Reversing Mill</i>)	25.90	25.90	12.95	--	--	--	--	--	--
Projected Actual Emissions (<i>Reversing Mill</i>)	29.69	29.69	14.84	--	--	--	--	--	--
Could Have Accommodated (<i>Reversing Mill</i>)	2.91	2.91	1.46	--	--	--	--	--	--
Total ATPA Emissions (<i>Existing Reversing Mill</i>)	0.88	0.88	0.44	--	--	--	--	--	--
ATPA for Affected Units (<i>Galvanizing Line 1 - Hot Band</i>)									
Baseline Actual Emissions	0.38	1.51	1.51	0.12	13.58	1.09	16.70	9.94E-05	5.17E-05
Adjusted baseline	0.31	1.24	1.24	0.10	11.11	0.89	13.66	8.13E-05	4.23E-05
existing units	0.31	1.24	1.24	0.10	11.11	0.89	13.66	8.13E-05	4.23E-05
new units	0.37	1.50	1.50	0.12	13.47	1.08	16.55	9.85E-05	5.12E-05

Process / Emission Unit	Potential to Emit (ton/yr)								
	PM	PM ₁₀	PM _{2.5}	SO ₂	NO _x	VOC	CO	Pb	Hg
Projected Actual Emissions	0.68	2.73	2.73	0.22	24.58	1.98	30.21	1.80E-04	9.35E-05
Total ATPA Emissions (Galvanizing Line 1 - Hot Band)	0.37	1.50	1.50	0.12	13.47	1.08	16.55	9.85E-05	5.12E-05
ATPA for Affected Units (Galvanizing Line 2 - Cold Rolled)									
Baseline Actual Emissions	0.31	1.25	1.25	0.10	11.27	0.91	13.86	8.25E-05	4.29E-05
Adjusted baseline	0.25	0.99	0.99	0.08	8.93	0.72	10.97	6.53E-05	3.40E-05
existing units	0.25	0.99	0.99	0.08	8.93	0.72	10.97	6.53E-05	3.40E-05
new units	0.32	1.29	1.29	0.10	11.57	0.93	14.23	8.47E-05	4.40E-05
Projected Actual Emissions	0.57	2.28	2.28	0.18	20.50	1.65	25.20	1.50E-04	7.80E-05
Total ATPA Emissions (Galvanizing Line 2 - Cold Rolled)	0.32	1.29	1.29	0.10	11.57	0.93	14.23	8.47E-05	4.40E-05
ATPA for Affected Units (Existing Paint Line)									
Baseline Actual Emissions	--	--	--	--	--	1,991.08	--	--	--
Projected Actual Emissions	--	--	--	--	--	2,048.48	--	--	--
Could Have Accommodated	--	--	--	--	--	57.40	--	--	--
Total ATPA Emissions (Existing Paint Line)	--	--	--	--	--	0.00	--	--	--
ATPA for Affected Units (Existing Paint Line Combustion)									
Baseline Actual Emissions	0.30	1.20	1.20	0.10	7.92	0.87	13.31	7.92E-05	4.12E-05
Projected Actual Emissions	0.31	1.24	1.24	0.10	8.15	0.90	13.69	8.15E-05	4.24E-05
Could Have Accommodated	0.01	0.03	0.03	0.00	0.23	0.03	0.38	2.28E-06	1.19E-06
Total ATPA Emissions (Existing Paint Line Combustion)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hot Band Leveler	0.96	0.96	0.96	0.00	0.00	0.00	0.00	0.00	0.00
Total New Units	22.41	9.18	4.41	0.11	6.25	0.96	14.72	8.76E-05	4.56E-05
Total ATPA Emissions Increase	2.54	4.62	4.19	0.22	25.04	2.02	30.78	1.83E-04	9.53E-05
Total for Modification	24.95	13.81	8.60	0.32	31.30	2.98	45.50	2.71E-04	1.41E-04
Significant Level	25	15	10	40	40	40	100	0.6	0.1

(d) Conclusion

Based on this Hybrid applicability test, this proposed modification is not subject to PSD major review under 326 IAC 2-2-1, because the project emissions are less than the significance levels (i.e., the modification does not cause a significant emissions increase).

Since this source is considered a major PSD source and the unrestricted potential to emit of this modification is greater than twenty-five (25) tons of PM per year, fifteen (15) tons of PM₁₀ per year, and ten (10) tons of direct PM_{2.5} per year, this source has elected to limit the potential to emit of this modification as follows:

- (a) Filterable PM emissions from Pickling Line 2 shall not exceed 3.90 pounds per hour.
- (b) PM₁₀ emissions from Pickling Line 2 shall not exceed 0.65 pounds per hour.
- (c) PM_{2.5} emissions from Pickling Line 2 shall not exceed 0.13 pounds per hour.
- (d) PM emissions from the Hot Band Leveler shall not exceed 0.22 pounds per hour.
- (e) PM₁₀ emissions from the Hot Band Leveler shall not exceed 0.22 pounds per hour.
- (f) PM_{2.5} emissions from the Hot Band Leveler shall not exceed 0.22 pounds per hour.
- (g) PM emissions from Reversing Mill 2 shall not exceed 1.14 pounds per hour.
- (h) PM₁₀ emissions from Reversing Mill 2 shall not exceed 1.14 pounds per hour.
- (i) PM_{2.5} emissions from Reversing Mill 2 shall not exceed 0.57 pounds per hour.

Compliance with these emission limits will ensure that the potential to emit from this modification is less than twenty-five (25) tons of PM per year, less than fifteen (15) tons of PM₁₀ per year, and less than ten (10) tons of direct PM_{2.5} per year per twelve (12) consecutive month period and therefore will render the requirements of 326 IAC 2-2 not applicable.

Federal Rule Applicability Determination

Due to the modification at this source, federal rule applicability has been reviewed as follows:

New Source Performance Standards (NSPS):

- (a) The one (1) emergency diesel generator, identified as Melt Shop (Door 26), is subject to the New Source Performance Standards for Stationary Compression Ignition Internal Combustion Engines, 40 CFR 60, Subpart IIII and 326 IAC 12, because the generator has a vendor manufacturing date after April 1, 2006 and was constructed after July 11, 2005. The unit subject to this rule includes the following:

- (1) One (1) emergency diesel generator, identified as Melt Shop (Door 26), approved 2010 for construction, with a nominal capacity of 500 Kw (670 hp).

The unit is subject to the following portions of Subpart IIII.

- (1) 40 CFR 60.4200(a)(2)(i), (a)(4)
 - (2) 40 CFR 60.4205(b)
 - (3) 40 CFR 60.4206
 - (4) 40 CFR 60.4207(a), (b)
 - (5) 40 CFR 60.4208
 - (6) 40 CFR 60.4209(a)
 - (7) 40 CFR 60.4211(a), (c), (f)
 - (8) 40 CFR 60.4214(b)
 - (9) 40 CFR 60.4218
 - (10) 40 CFR 60.4219
 - (11) Table 8 to 40 CFR 60, Subpart IIII

The requirements of 40 CFR Part 60, Subpart A – General Provisions, which are incorporated as 326 IAC 12-1, apply to the unit except as otherwise specified in 40 CFR 60, Subpart IIII.

- (b) The requirements of the New Source Performance Standard for Stationary Compression Ignition Internal Combustion Engines (40 CFR 60, Subpart IIII), are not included in the permit for the three (3) emergency diesel generators, identified as CM Watertreat, Main Watertreat (East), and Main Watertreat (West), because they were manufactured prior to 2007.
- (c) There are no other New Source Performance Standards (NSPS) (326 IAC 12 and 40 CFR Part 60) included in the permit for this proposed modification.

National Emission Standards for Hazardous Air Pollutants (NESHAP):

- (d) There are no National Emission Standards for Hazardous Air Pollutants (NESHAPs) (40 CFR Part 63, 326 IAC 14, and 326 IAC 20) included in the permit for this proposed modification

Compliance Assurance Monitoring (CAM):

- (e) Pursuant to 40 CFR 64.2, Compliance Assurance Monitoring (CAM) is applicable to each existing pollutant-specific emission unit that meets 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.
- (f) Pursuant to 40 CFR 64.2(b)(1)(i), emission limitations or standards proposed after November 15, 1990 pursuant to a NSPS or NESHAP under Section 111 or 112 of the Clean Air Act are exempt from the requirements of CAM. Therefore, an evaluation was not conducted for any emission limitations or standards proposed after November 15, 1990 pursuant to a NSPS or NESHAP under Section 111 or 112 of the Clean Air Act.

The following table is used to identify the applicability of CAM to each existing emission unit and each emission limitation or standard for a specified pollutant based on the criteria specified under 40 CFR 64.2:

Emission Unit / Pollutant	Control Device	Applicable Emission Limitation	Uncontrolled PTE (tons/year)	Controlled PTE (tons/year)	CAM Applicable (Y/N)	Large Unit (Y/N)
Hot Band Leveler - PM	BH	326 IAC 2-2	3.53	0.04	N	N
Hot Band Leveler - PM ₁₀		326 IAC 2-2	3.53	0.04	N	N
Hot Band Leveler - PM _{2.5}		326 IAC 2-2	3.53	0.04	N	N
Uncontrolled PTE (tpy) and controlled PTE (tpy) are evaluated against the Major Source Threshold for each pollutant. Major Source Threshold for criteria pollutants (PM10, PM2.5, SO2, NOX, VOC and CO) is 100 tpy, for a single HAP ten (10) tpy, and for total HAPs twenty-five (25) tpy						
CAM does not apply for PM, PM10, or PM2.5 because the uncontrolled PTE of PM, PM10, or PM2.5 is less than the major source threshold.						
Under the Part 70 Permit program (40 CFR 70), PM is not a regulated pollutant.						
Controls: BH = Baghouse, C = Cyclone, DC = Dust Collection System, RTO = Regenerative or Recuperative Thermal Oxidizer, WS = Wet Scrubber, ESP = Electrostatic Precipitator						
Emission units without air pollution controls are not subject to CAM. Therefore, they are not listed.						

Based on this evaluation, the requirements of 40 CFR Part 64, CAM, are not applicable to the Hot Band Leveler as part of this modification.

State Rule Applicability Determination

Due to the modification at this source, state rule applicability has been reviewed as follows:

326 IAC 2-2 (PSD)

PSD applicability is discussed under the Permit Level Determination – PSD section.

326 IAC 2-4.1 (Major Sources of Hazardous Air Pollutants (HAP))

The operation of this source will emit less than 10 tons per year of a single HAP and less than 25 tons per year of a combination of HAPs. Therefore, 326 IAC 2-4.1 does not apply.

326 IAC 2-7-6(5) (Annual Compliance Certification)

The U.S. EPA Federal Register 79 FR 54978 notice does not exempt Title V Permittees from the requirements of 40 CFR 70.6(c)(5)(iv) or 326 IAC 2-7-6(5)(D), but the submittal of the Title V annual compliance certification to IDEM satisfies the requirement to submit the Title V annual compliance certifications to EPA. IDEM does not intend to revise any permits since the requirements of 40 CFR 70.6(c)(5)(iv) or 326 IAC 2-7-6(5)(D) still apply, but Permittees can note on their Title V annual compliance certifications that submission to IDEM has satisfied reporting to EPA per Federal Register 79 FR 54978. This only applies to Title V Permittees and Title V compliance certifications.

Hot Band Leveler

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

Pursuant to 326 IAC 6-3-1(a), the requirements of 326 IAC 6-3-2 are applicable to the Hot Band Leveler, since it is a manufacturing process not exempted from this rule under 326 IAC 6-3-1(b) and is not subject to a particulate matter limitation that is as stringent as or more stringent than the particulate limitation established in this rule as specified in 326 IAC 6-3-1(c). Pursuant to 326 IAC 6-3-2, the particulate matter (PM) from the Hot Band Leveler shall not exceed 56.1 pounds per hour when operating at a process weight rate of 160 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:

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

Since the particulate emissions of 0.81 lb/hr is less than the 56.1 lb/hr limit calculated above, the Hot Band Leveler is able to comply with 326 IAC 6-3 without the use of a control device.

Galvanizing Line Heaters

326 IAC 6-2 (Particulate Emission Limitations for Sources of Indirect Heating)

The requirements of 326 IAC 6-2 are not included in the permit for the new preheat burners on Galvanizing Line 1 because when viewed individually, the preheater burners would qualify as direct heating sources because the products of combustion come into contact with the material being heated. Therefore, these new preheat burners on Galvanizing Line 1 are not subject to 326 IAC 6-2 (Particulate Emission Limitations for Sources of Indirect Heating).

326 IAC 6-3 (Particulate Emissions Limitations from Manufacturing Processes)

The natural gas-fired heaters associated with Galvanizing Line 1 are not subject to 326 IAC 6-3, because they are not considered a "manufacturing processes" as defined in 326 IAC 6-3-1.5(2). Also, pursuant to 326 IAC 1-2-59, liquid and gaseous fuels and combustion air are not considered as part of the process weight.

326 IAC 7-1.1 (Sulfur Dioxide Limitations)

The potential SO₂ emissions from the natural gas-fired heaters associated with Galvanizing Line 1 are less than 25 tons per year and 10 pounds per hour. Therefore, the requirements of 326 IAC 7-1.1 are not applicable.

326 IAC 8-1-6 (VOC General Reduction Requirements (BACT): New Facilities)

The potential VOC emissions from the natural gas-fired heaters associated with Galvanizing Line 1 are less than 25 tons per year. Therefore, the requirements of 326 IAC 8-1-6 are not applicable.

Indirect Heating Units

326 IAC 6-2 (Particulate Emission Limitations for Sources of Indirect Heating)

- (a) The requirements of 326 IAC 6-2 are not included in the permit for the Electric Arc Furnaces, because pursuant to 326 IAC 6-2-1(g), If any limitation established by this rule is inconsistent with a limitation contained in a facility's construction or operation permit as issued pursuant to 326 IAC 2 concerning permit review regulations, then the limitations contained in the source's current permits prevail. The Electric Arc Furnaces have PSD limits. Therefore, the Electric Arc Furnaces are not subject to 326 IAC 6-2 (Particulate Emission Limitations for Sources of Indirect Heating).
- (b) SDI has stated that the Ladle Metallurgical Stations are electric only; it does not include any burners that combust fuel. Therefore, it is not subject to the requirements of 326 IAC 6-2 which are applicable to particulate emissions from the combustion of fuel from indirect heating sources.
- (c) SDI has determined that the annealing furnaces are sources of indirect heating. Previously, they were considered direct fired heating units. The applicability requirements for 326 IAC 6-2 have been updated to reflect these additional units.
- (d) Pursuant to 326 IAC 6-2-1(d), indirect heating facilities which received permit to construct after September 21, 1983 are subject to the requirements of 326 IAC 6-2-4.

The particulate matter emissions (Pt) shall be limited by the following equation:

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

Where:

Pt = Pounds of particulate matter emitted per million British thermal units (lb/MMBtu).

Q = Total source maximum operating capacity rating in MMBtu/hr heat input. The maximum operating capacity rating is defined as the maximum capacity at which the facility is operated or the nameplate capacity, whichever is specified in the facility's permit application, except when some lower capacity is contained in the facility's operation permit; in which case, the capacity specified in the operation.

Pursuant to 326 IAC 6-2-4(a), for Q less than 10 MMBtu/hr, Pt shall not exceed 0.6 lb/MMBtu.

Indirect Heating Units Which Began Operation After September 21, 1983						
Facility (striking through units have been removed) (Bold units have been added)	Construction Date (Removal Date)	Operating Capacity (MMBtu/hr)	Q (MMBtu/hr)	Calculated Pt (lb/MMBtu)	Particulate Limitation, (Pt) (lb/MMBtu)	PM PTE based on AP-42 (lb/MMBtu)
18 heating units	After September 21, 1983	0.25 (each)	4.50	0.73	0.6	0.002
Annealing furnaces (16 furnaces)	1996	4.0 (each)	109.3	0.32	0.32	0.002
Pickling Line Boiler 1**	1996	20.4	109.3	0.32	0.32	0.002
Pickling Line Boiler 2**	1996	20.4	109.3	0.32	0.32	0.002
Pickling Line Boiler 3**	2006	20.4	109.3	0.32	0.32	0.002
Pickling Line Boiler 4	2015	20.4	180.2	0.28	0.28	0.002
Pickling Line Boiler 5	2015	20.4	180.2	0.28	0.28	0.002
Galvanizing Line #1 burners*	2015	20.68	180.2	0.28	0.28	0.002

Indirect Heating Units Which Began Operation After September 21, 1983						
Facility (strike through units have been removed) (Bold units have been added)	Construction Date (Removal Date)	Operating Capacity (MMBtu/hr)	Q (MMBtu/hr)	Calculated Pt (lb/MMBtu)	Particulate Limitation, (Pt) (lb/MMBtu)	PM PTE based on AP-42 (lb/MMBtu)
Galvanizing Line #2 burners*	2015	9.44	180.2	0.28	0.28	0.002
Where: Q = Includes the capacity (MMBtu/hr) of the new unit(s) and the capacities for those unit(s) which were in operation at the source at the time the new unit(s) was constructed.						

*When viewed individually, the preheater and dryer burners would qualify as direct heating sources because the products of combustion come into contact with the material being heated. The radiant tube and cleaning section burners would qualify as indirect heating sources because a heat-conducting materials barrier is present.

**Pursuant to 326 IAC 2-2 (BACT), only two of the three Pickling Line boilers 1, 2 and 3 can be operated at any time. Therefore, the Q value in this table is calculated based on these limits.

Compliance Determination and Monitoring Requirements

Permits issued under 326 IAC 2-7 are required to assure 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.

(a) The Compliance Determination Requirements applicable to this modification are as follows:

- (1) The baghouse for particulate control shall be in operation and control emissions from the Hot Band Leveler at all times that the Hot Band Leveler is in operation.

Summary of Testing Requirements					
Emission Unit	Control Device	Timeframe for Testing (or Date of Last Valid Demonstration)	Pollutant	Frequency of Testing	Authority
Hot Band Leveler	Baghouse	Not later than 180 days after start up	PM, PM ₁₀ and PM _{2.5}	Once	326 IAC 2-2

(b) The Compliance Monitoring Requirements applicable to this proposed modification are as follows:

Emission Unit / Control	Parameter	Frequency	Range	Excursions and Exceedances
Hot Band Leveler	Visible emission notations	Once per day	Normal/Abnormal	Response Steps

These monitoring conditions are necessary because the baghouses controlling particulate emissions must operate properly to ensure compliance with 326 IAC 2-2 (PSD minor limit).

Proposed Changes

The following changes listed below are due to the proposed modification. Deleted language appears as ~~strike through~~ text and new language appears as **bold** text:

Proposed Changes

- (a) Condition A.3 - Emission Units and Pollution Control Equipment Summary and Section D.8 Emissions Unit Description Box have been revised to include the new eight (8) Preheat Burners that are associated with this modification.
- (b) Condition A.3 - Emission Units and Pollution Control Equipment Summary and Section D.5 Emissions Unit Description Box have been revised to specify that the hot band leveler exhausts indoors through stack level.
- (c) Condition A.3 - Emission Units and Pollution Control Equipment Summary and Section D.10 Emissions Unit Description Box have been revised. The one (1) 2-side, 2-coat coil coating line, identified as Paint Line 3 was never constructed at the source. Paint Line 3 will be constructed at a different facility outside of Indiana and is therefore not needed at Steel Dynamics, Inc. - Flat Roll Division. Therefore, Paint Line 3 has been removed from the permit in Sections D.02 Hazardous Air Pollutants, D.0.3 Record Keeping Requirements, D.10.1 Volatile Organic Compounds (VOC) and Hazardous Air Pollutants (HAP) Minor Limit, D.10.2 PSD Minor Limit, D.10.3 HAPs Minor Limit, D.10.5 Volatile Organic Compound (VOC) Content Limitations, D.10.6 Preventive Maintenance Plan, D.10.7 Permanent Total Enclosure, D.10.8 Thermal Oxidizer, D.10.9 Testing Requirements, D.10.11 Volatile Organic Compounds (VOC) and Hazardous Air Pollutants (HAP), D.10.13 Thermal Oxidizer Temperature, D.10.14 Parametric Monitoring, D.10.15 Record Keeping Requirements, D.10.16 Reporting Requirements, and Part 70 Quarterly Report Form.
- (d) Sections D.0.2 Hazardous Air Pollutants, D.0.3 Record Keeping Requirements, and D.10.1 Volatile Organic Compounds (VOC) and Hazardous Air Pollutants (HAP) Minor Limit have been revised to remove all references to the SAF Dust Recycling System Stack #79. This unit was never built.
- (e) Section D.1.14 Bag Leak Detection System (BLDS) has been clarified per source comment. This statement incorrectly refers to the RHF at IDD. Also, there is no need to repeat the requirement to use a certified opacity reader – it is already required by provision (7), above.
- (f) Section D.3.2 Visible Emissions Limitations - Best Available Control Technology has been clarified per source comment. This clarification matches the format used in provision (b).
- (g) Section D.4.2 PSD Minor Limit has been revised to remove D.6.2(a) as this emission limit has been removed with SSM 033-34898-00043.
- (h) Section D.4.8 Parametric Monitoring has been clarified per source comment. Please clarify that the flow rate only applies when the line is actually in operation, as has been done in provision (a).
- (i) Section D.5.2 PSD Minor Limit has been revised to change the PM, PM10, and PM2.5 emissions limit from 0.008 to 0.22 lbs/hr for the Hot Band Leveler. This new limit allows the source to perform more accurate testing and maintains the modification, SSM 033-

34898-00043, as minor under 326 IAC 2-2 (Prevention of Significant Deterioration (PSD)).

- (j) Section D.5.2 PSD Minor Limit has been revised to remove "less than forty (40) tons of VOC per twelve (12) consecutive month period" because the source no longer has a VOC limit, due to the removal of Paint Line 3, to maintain the modification, SSM 033-34898-00043, as minor under 326 IAC 2-2 (Prevention of Significant Deterioration (PSD)).
- (k) Section D.5.4 Particulate Control has been clarified per source comment. Please revise as shown to clarify the requirement.
- (l) Section D.5.5 Testing Requirements has been revised to change the testing requirements for the Hot Band Leveler to a one time test not later than 180 days after startup of the hot band leveler in order to demonstrate that the Cold Mill Expansion project is minor under 326 IAC 2-2 (Prevention of Significant Deterioration (PSD)).
- (m) Sections D.5.7 Visible Emissions Notations and D.5.8 Record Keeping and Reporting Requirements have been updated to IDEM, OAQ model language.
- (n) Section D.10.4 Volatile Organic Compounds (VOC) has been clarified per source comment. Please revise as shown to clarify the requirement. This is not a fixed limit, but will vary depending on the actual VOC content of coatings used pursuant to the equation above. Therefore, we request that either this value be removed from the permit or additional language be included to state that this is an example efficiency. IDEM agreed to remove this control efficiency previously, but inadvertently retained it – see ATSD page 22 of 30 in SSM 033-34898-00043.
- (o) Section D.10.8 Thermal Oxidizer has been clarified per source comment. D.10.1 already states these requirements. They do not need to be repeated here. Alternatively, they could be removed from those conditions and placed here.
- (p) Conditions D.10.6 Testing Requirements, D.10.7 Volatile Organic Compounds (VOC) and Hazardous Air Pollutants (HAP), and D.10.9 Record Keeping Requirements have been revised in order to demonstrate compliance with Condition D.10.1(d) - Volatile Organic Compounds (VOC) and Hazardous Air Pollutants (HAP) Minor Limit. The source is limited to be an area source of HAPs under 40 CFR Part 63. Therefore, the HAPs from Paint Line 1 and Paint Line 3 were to be tested when VOC emissions from either of these facilities was equal to or exceeded four and one half (4.5) tons for any twelve (12) consecutive month period for combined VOC emissions from these facilities of nine (9) tons for any twelve (12) consecutive month period. Since Paint Line 3 has been removed from the permit, Paint Line 1 may have VOC emissions less than nine (9) tons for any twelve (12) consecutive month period without testing. Therefore, "four and one half (4.5) tons" has been changed to " nine (9) tons".
- (q) Section D.13.4 Stationary Compression Ignition Internal Combustion Engines NSPS has been clarified per source comment. IDEM, OAQ has updated rule applicability.
- (r) SDI has stated the annealing furnaces are sources of indirect heating. These units are subject to 326 IAC 6-2-4. D.9.3 has been added to the permit to include the requirements of this rule. The Q values, and associated particulate limits, for the pickling line boilers (D.6.3) and galvanizing lines (D.8.3) have been revised accordingly.

Additional Changes

IDEM, OAQ made additional changes to the permit as described below in order to update the language to match the most current version of the applicable rule, to eliminate redundancy within the permit, and to provide clarification regarding the requirements of these conditions.

- (a) Typographical errors have been corrected throughout. Conditions have been renumbered throughout.
- (b) Condition A.1 - General Information has been revised to specify the SIC Code description.
- (c) On October 27, 2010, the Indiana Air Pollution Control Board issued revisions to 326 IAC 2. These revisions resulted in changes to the rule citations listed in the permit. These changes are not changes to the underlining provisions. The change is only to cite of these rules in Section B - Permit Renewal, Section B - Operational Flexibility, Section C - Risk Management Plan, and Section C - Emission Statement.
- (d) Section C - Response to Excursions or Exceedances
In paragraph (II)(c), the acronym QIP is being spelled out as Quality Improvement Plan because this is the first time it is mentioned in the condition.

In paragraphs (II)(f) and (II)(h)(1), the reference to paragraph (II)(a)(2) is being changed to paragraph (II)(c). Referencing paragraph (II)(a)(2) is correct, however IDEM, OAQ believes that referencing paragraph (II)(c) provides clarity.
- (e) D Sections have been revised to change "facility" to "emissions unit" and to change "Emission Unit Description" to "Emissions Unit Description" for clarity.
- (f) D Section Emission Unit Description boxes have been revised to match the units in the A section of the permit.
- (g) After discussions with EPA, OAQ decided to add a rule cite for the Compliance Determination Requirements subsection title in the D Sections. The addition of this rule cite is to satisfy EPA's concerns. The rule citation has been changed throughout the permit as follows:

Compliance Determination Requirements **[326 IAC 2-7-5(1)]**
- (h) IDEM, OAQ has updated the Part 70 Quarterly Report Forms of the permit for clarity.

The permit has been revised as follows:

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- General Information, A.2 - Part 70 Source Definition, A.3 - Emission Units and Pollution Control Equipment Summary and ~~A.4~~, **A.4 - Specifically Regulated Insignificant Activities**, and **A.5 - Insignificant Activities** 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(14)][326 IAC 2-7-1(22)]

The Permittee owns and operates a stationary steel minimill.

Source Address:	4500 County Rd Road 59, Butler, Indiana 46721
General Source Phone Number:	(260-) 868-8000
SIC Code:	3312 (Steel Works, Blast Furnaces (Including Coke Ovens), and Rolling Mills)
County Location:	DeKalb
Source Location Status:	Attainment for all criteria pollutants

Source Status: Part 70 **Operating** Permit Program
Major Source, under PSD Rules
Minor 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)]

A.3 Emission Units and Pollution Control Equipment Summary [326 IAC 2-7-4(c),(3)][326 IAC 2-7-5(14)]

Cold Mill Operations – Pickling ~~Line~~**Lines**

- (a) One (1) pickling line, with a nominal capacity of 1.4 million tons of steel throughput per year, permitted in 1996 for construction, with a packed scrubber and covered tanks maintained under negative pressure, for Hydrochloric Acid (HCl) control, and a mist eliminator for PM/PM-10 control, exhausting to Stack 17.
- (b) One (1) Pickling Line, identified as Pickling Line 2, approved in 2015 for construction, with a nominal capacity of 1.4 million tons of steel throughput per year, equipped with a packed scrubber (Pickling Line 2 Fume Scrubber) and covered tanks maintained under negative pressure, for **particulate and** Hydrochloric Acid (HCl) control, exhausting to Stack Pickle 2.

Pickle Line Scale Breaker

- (a) One (1) scale breaker, permitted in 1996 for construction, with a nominal capacity of 1.4 million tons of steel throughput per year that removes scale from the rolled steel prior to the pickling process. Particulate (PM/PM10) emissions are controlled by a baghouse with a nominal air flow rate of 10,600 acfm and exhausting to Stack 60.

Pickling Line Boilers

- (a) Three (3) natural gas fired boilers Nos. 1, 2 and 3, two (2) permitted in 1996 and one (1) permitted in 2006, equipped with low NOx burners, exhausting to Stacks 15, 16a and 16b. The nominal heat input for each boiler is 20.4 MMBtu per hour.
- (b) Two (2) natural gas-fired pickling line boilers, identified as Boilers #4, and #5, approved in 2015 for construction, with a nominal heat input for each boiler of 20.4 MMBtu per hour, equipped with low NOx burners, exhausting to combined Stack Boil456.

Reversing Mill

- (a) One (1) cold reversing mill, with a nominal capacity of one (1.0) million tons of steel throughput per year, permitted in 1996 for construction, with a mist eliminator for particulate (PM/PM10) emissions control, exhausting to Stack 18.
- (b) One (1) two-stand cold reversing mill, identified as Reversing Mill 2, approved in 2015 for construction, with a nominal capacity of 1.0 million tons of steel throughput per year, equipped with a mist eliminator for particulate control, exhausting to Stack Revmill 2.

Galvanizing Lines

- (a) One (1) hot band galvanizing line, identified as Galvanizing Line #1, with a nominal capacity of 570,000 tons of steel throughput per year, permitted in 1996 for construction and for modification in 2015, heated by low NOx burner natural gas fired heaters with a total nominal heat input capacity of 75.7 MMBtu per hour, and consisting of:

- (1) Twenty-four Preheat Burners, permitted in 1996, with a total nominal rated heat input capacity of 44.71 MMBtu/hr, exhausting through Stack 19.

Replacement burners:

- (1) Four (4) Preheat Burners, approved in 2015 for construction, with a total nominal rated heat input capacity of 7.45 MMBtu/hr exhausting through Stack 19.
- (2) Eight (8) Radiant Burners, approved in 2015 for construction, with a total nominal rated heat input capacity of 2.36 MMBtu/hr, exhausting indoors.
- (3) One (1) Drying Burner, approved in 2015 for construction, with a nominal rated heat input capacity of 0.50 MMBtu/hr, exhausting indoors.

New burners:

- (1) Twenty-four (24) Radiant Burners, approved in 2015 for construction, with a total nominal rated heat input capacity of 7.08 MMBtu/hr, exhausting indoors.
 - (2) Two (2) Cleaning Burners, approved in 2015 for construction, with a total nominal rated heat input capacity of 10.60 MMBtu/hr, exhausting to Stacks G1C1 and G1C2, respectively.
 - (3) One (1) Cleaning Burner, approved in 2015 for construction, with a nominal rated heat input capacity of 3.0 MMBtu/hr, exhausting to Stack G1C3.
 - (4) **Eight (8) Preheat Burners, approved in 2016 for construction, with a total nominal rated heat input capacity of 14.88 MMBtu/hr, exhausting through Stack 19.**
- (b) One (1) cold rolled galvanizing line, identified as Galvanizing Line #2, with a nominal capacity of 430,000 tons of steel throughput per year, permitted in 1996 for construction and modified in 2015, heated by low NOx burner natural gas fired heaters, with a total nominal heat input capacity of 93.6 MMBtu per hour, and consisting of :
- (1) Burners, permitted in 1996, with a total nominal rated heat input capacity of 54.15 MMBtu/hr, exhausting to Stack19.

Replacement burners:

- (1) Two (2) Cleaning Burners, approved in 2015 for construction, with a total nominal rated heat input capacity of 10.60 MMBtu/hr, exhausting to Stacks G2C1 and G2C2, respectively.
- (2) One (1) Cleaning Burner, approved in 2015 for construction, with a nominal rated heat input capacity of 3.00 MMBtu/hr, exhausting to Stack G2C3.
- (3) Three (3) Drying Burners, approved in 2015 for construction, with a total nominal rated heat input capacity of 1.50 MMBtu/hr, exhausting indoors.

New burners:

- (1) Eight (8) Preheat Burners, approved in 2015 for construction, with a total nominal rated heat input capacity of 14.90 MMBtu/hr, exhausting through Stack 19.
- (2) Thirty-two (32) Radiant Burners, approved in 2015 for construction, with a total nominal rated heat input capacity of 9.44 MMBtu/hr, exhausting indoors.

Note: This line also includes a backup cleaning burner, with nominal rated heat input capacity of 5.3 MMBtu/hr.

Annealing Furnaces

- (a) Sixteen (16) low NOx burners, natural gas fired annealing furnaces and forty (40) annealing bases, permitted in 1996 for construction. Each furnace has a nominal heat input of four (4) MMBtu per hour, exhausting through roof pipes 30, 31 and 32.

Paint ~~Lines~~Line (Coil Coating ~~Lines~~Line)

- (a) One (1) 2-side, 2-coat coil coating line, identified as Paint Line 1, permitted in 2002 for construction, using roll coating method, with a nominal capacity of 55,000 pounds per hour of the flat rolled steel, equipped with two (2) curing ovens with a combined nominal heat input capacity of 16 MMBtu per hour, using a 60 MMBtu per hour name plate rated heat input capacity burner equipped thermal oxidizer to control VOC emissions and exhausting to Stack 78.
- ~~(b) One (1) 2-side, 2-coat coil coating line, identified as Paint Line 3, approved in 2015 for construction, using roll coating method, with a nominal capacity of 55,000 pounds per hour of the flat rolled steel, equipped with two (2) curing ovens, one of which will be heated with burners with a nominal heat input rating of 16 MMBtu per hour and equipped with low NOx burners, and a 60 MMBtu per hour thermal oxidizer (Paint Line 3 Thermal Oxidizer) to control VOC emissions. Heat generated from the thermal oxidizer will be used to heat the second oven. Paint Line 3 exhausts to Stack Paint 3.~~

Slag Handling Operation

The following slag handling operations are owned and operated by Edward C. Levy Company - Butler Mill Service.

- (a) One (1) grizzly feeder with a nominal capacity of 300 tons per hour, permitted in 1994 for construction;
- (b) One (1) 36" conveyor (#9), with a nominal capacity of 350 tons per hour, permitted in 1994 for construction;
- (c) One (1) 42" conveyor (#7), with a nominal capacity of 350 tons per hour, permitted in 1994 for construction;
- (d) Two (2) 5' by 12' Screens, each with a nominal capacity of 350 tons per hour, permitted in 1994 for construction;
- (e) One (1) 36" conveyor (#6), with a nominal capacity of 193 tons per hour, constructed in 1994 and modified in 2014;
- (f) One (1) 30" conveyor (#5), with a nominal capacity of 250 tons per hour, permitted in 1994 for construction;
- (g) Three (3) 6' by 16' Screens, each with a nominal capacity of 250 tons per hour, permitted in 1994 for construction;
- (h) One (1) 48" Conveyor (#1), with a nominal capacity of 75 tons per hour, permitted in 1994 for construction;
- (i) One (1) 30" Stacker (#1), with a nominal capacity of 75 tons per hour, permitted in 1994 for construction;

- (j) One (1) 24" Stacker (#2), with a nominal capacity of 125 tons per hour, permitted in 1994 for construction;
- (k) One (1) 24" Conveyor (#12); with a nominal capacity of 40 tons per hour, permitted in 1994 for construction;
- (l) One (1) 24" Stacker (#4), with a nominal capacity of 50 tons per hour, permitted in 1994 for construction;
- (m) One (1) 4 ¼ Standard Crusher, with a nominal capacity of 50 tons per hour, permitted in 1994 for construction;
- (n) One (1) 30" Conveyor (#8), with a nominal capacity of 25 tons per hour; permitted in 1994 for construction;
- (o) Two (2) 30" Conveyors (#10 and #11), with a nominal capacity of 50 tons per hour each, permitted in 2003 for construction;
- (p) One (1) jaw crusher, identified as J01, with a nominal capacity of 193 tons per hour, approved in 2014 for construction.
- (q) Aggregate Storage Piles.
- (r) Three (3) slag storage areas, approved in 2013 for construction, identified as Slag Area 1, 2, and 3, each with a nominal throughput of 400 tons per hour.

Fugitive emissions from parts of the slag handling operations are controlled as needed by water sprays.

Fugitive Dust Sources

- (a) Paved roads,
- (b) Parking areas,
- (c) Unpaved roads, and
- (d) Traveled open areas.

Emergency Generators

- (a) Three (3) emergency diesel generators, identified as CM Watertreat, Main Watertreat (East), and Main Watertreat (West), approved in 1996, 1997, and 1995 for construction, each with a nominal capacity of 1500Kw (2011 hp). [40 CFR 63, Subpart ZZZZ]

Hot Band Leveler

- (a) One (1) Hot Band Leveler, constructed in 2012, with a nominal process rate of 160 tons of steel throughput per hour, equipped with a baghouse for particulate control, exhausting **indoors to through** stack Level.

B.8 Certification [326 IAC 2-7-4(f)][326 IAC 2-7-6(1)][326 IAC 2-7-5(3)(C)]

- (a) A certification required by this permit meets the requirements of 326 IAC 2-7-6(1) if:

- (i) it contains a certification by a "responsible official" as defined by 326 IAC 2-7-1(35), and

- (ii2) the certification states that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.
- (b) The Permittee may use the attached Certification Form, or its equivalent with each submittal requiring certification. One (1) certification may cover multiple forms in one (1) submittal.
- (c) A "responsible official" is defined at 326 IAC 2-7-1(35).

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

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

Indiana Department of Environmental Management
Compliance and Enforcement Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

and

United States Environmental Protection Agency, Region 5
V
Air and Radiation Division, Air Enforcement Branch - Indiana (AE-17J)
77 West Jackson Boulevard
Chicago, Illinois 60604-3590

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

- (a) The application for renewal shall be submitted using the application form or forms prescribed by IDEM, OAQ, and shall include the information specified in 326 IAC 2-7-4. Such information shall be included in the application for each emission unit at this source, except those emission units included on the trivial or insignificant activities list contained in 326 IAC 2-7-1(21) and 326 IAC 2-7-1(4042). The renewal application does require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35).

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

- (a) The Permittee may make any change or changes at the source that are described in 326 IAC 2-7-20(b) or (c), without a prior permit revision, if each of the following conditions is met:
 - (1) The changes are not modifications under any provision of Title I of the Clean Air Act;
 - (2) Any preconstruction approval required by 326 IAC 2-7-10.5 has been obtained;

- (3) The changes do not result in emissions which exceed the limitations provided in this permit (whether expressed herein as a rate of emissions or in terms of total emissions);

- (4) The Permittee notifies the:

Indiana Department of Environmental Management
Permit Administration and Support Section, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

and

United States Environmental Protection Agency, Region 5
V
Air and Radiation Division, Regulation Development Branch - Indiana (AR-18J)
77 West Jackson Boulevard
Chicago, Illinois 60604-3590

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

- (5) The Permittee maintains records on-site, on a rolling five (5) year basis, which document, all such changes and emission trades that are subject to 326 IAC 2-7-20(b)-(1) and (c)(1). The Permittee shall make such records available, upon reasonable request, for public review.

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

- (b) The Permittee may make Section 502(b)(10) of the Clean Air Act changes (this term is defined at 326 IAC 2-7-1(3637)) without a permit revision, subject to the constraint of 326 IAC 2-7-20(a). For each such Section 502(b)(10) of the Clean Air Act change, the required written notification shall include the following:

C.2 Opacity [326 IAC 5-1]

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

C.14 Risk Management Plan [326 IAC 2-7-5(4211)][40 CFR 68]

C.15 Response to Excursions or Exceedances ~~[326 IAC 2-7-5][326 IAC 2-7-6][40 CFR 64][326 IAC 3-8]~~**[326 IAC 2-7-5][326 IAC 2-7-6]**

- (c) Based on the results of a determination made under paragraph (II)(a)(2) of this condition, the EPA or IDEM, OAQ may require the Permittee to develop and implement a ~~QIP~~**Quality Improvement Plan (QIP)**. The Permittee shall develop and implement a ~~Quality Improvement Plan (QIP)~~**QIP** if notified to in writing by the EPA or IDEM, OAQ.

- (d) Elements of a QIP:
The Permittee shall maintain a written QIP, if required, and have it available for inspection. The plan shall conform to 40 CFR 64.8 b (2).
- (e) If a QIP is required, the Permittee shall develop and implement a QIP as expeditiously as practicable and shall notify the IDEM, OAQ if the period for completing the improvements contained in the QIP exceeds 180 days from the date on which the need to implement the QIP was determined.
- (f) Following implementation of a QIP, upon any subsequent determination pursuant to paragraph (II)(a)(2c) of this condition the EPA or the IDEM, OAQ may require that the Permittee make reasonable changes to the QIP if the QIP is found to have:
 - (1) Failed to address the cause of the control device performance problems; or
 - (2) Failed to provide adequate procedures for correcting control device performance problems as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions.
- (g) Implementation of a QIP shall not excuse the Permittee from compliance with any existing emission limitation or standard, or any existing monitoring, testing, reporting or recordkeeping requirement that may apply under federal, state, or local law, or any other applicable requirements under the Act.
- (h) *CAM recordkeeping requirements.*
 - (1) The Permittee shall maintain records of monitoring data, monitor performance data, corrective actions taken, any written quality improvement plan required pursuant to paragraph (II)(a)(2c) of this condition and any activities undertaken to implement a quality improvement plan, and other supporting information required to be maintained under this condition (such as data used to document the adequacy of monitoring, or records of monitoring maintenance or corrective actions). Section C - General Record Keeping Requirements of this permit contains the Permittee's obligations with regard to the records required by this condition.
 - (2) Instead of paper records, the owner or operator may maintain records on alternative media, such as microfilm, computer files, magnetic tape disks, or microfiche, provided that the use of such alternative media allows for expeditious inspection and review, and does not conflict with other applicable recordkeeping requirements.

C.16 Actions Related to Noncompliance Demonstrated by a Stack Test [326 IAC 2-7-5][326 IAC 2-7-6]

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

C.17 Emission Statement [326 IAC 2-7-5(3)(C)(iii)][326 IAC 2-7-5(7)][326 IAC 2-7-19(c)][326 IAC 2-6]
Pursuant to 326 IAC 2-6-3(a)(1), the Permittee shall submit by July 1 of each year an emission statement covering the previous calendar year. The emission statement shall contain, at a minimum, the information specified in 326 IAC 2-6-4(c) and shall meet the following requirements:

- (a1) Indicate estimated actual emissions of all pollutants listed in 326 IAC 2-6-4(a);
- (2) (b) —Indicate estimated actual emissions of regulated pollutants as defined by 326 IAC 2-7-1(3233) ("Regulated pollutant, which is used only for purposes of Section 19 of this rule") from the source, for purposes of fee assessment.

C.19 General Reporting Requirements [326 IAC 2-7-5(3)(C)][326 IAC 2-1.1-11][326 IAC 2-2][40 CFR 64][326 IAC 3-8]

- (a) The Permittee shall submit the attached Quarterly Deviation and Compliance Monitoring Report or its equivalent. Proper notice submittal under Section B.11—Emergency Provisions satisfies the reporting requirements of this paragraph. Any deviation from permit requirements, the date(s) of each deviation, the cause of the deviation, and the response steps taken must be reported except that a deviation required to be reported pursuant to an applicable requirement that exists independent of this permit, shall be reported according to the schedule stated in the applicable requirement and does not need to be included in this report. This report shall be submitted ~~not~~ later than thirty (30) days after the end of the reporting period. The Quarterly Deviation and Compliance Monitoring Report shall include a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35). A deviation is an exceedance of a permit limitation or a failure to comply with a requirement of the permit.

Stratospheric Ozone Protection

C.20 Compliance with 40 CFR 82 and 326 IAC 22-1

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

SECTION D.0 **FACILITY EMISSIONS UNIT OPERATION CONDITIONS**

Emissions Unit Description: Entire Source HAP Limitation

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

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

D.0.1 HAP Minor Limitation [40 CFR 63.1]

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

D.0.2 Hazardous Air Pollutants

In order to demonstrate compliance with Condition D.0.1 - HAP Minor Limitation, the Permittee shall use the following equations:

- (a) Chromium(total) =
$$\left\{ \left[\left(\text{RHF Stack 40}_{\text{CHROMIUM}} + \text{RHF Stack 77}_{\text{CHROMIUM}} \right) \times \text{RHF}_{\text{HOURS}} \right] + \left[\left(\text{SAF Stack 58}_{\text{CHROMIUM}} \times \text{SAF}_{\text{HOURS}} \right) \right] + \left[\left(\text{FR}_{\text{CHROMIUM}} - \text{IDD}_{\text{CHROMIUM CONSTANT}} \right) \times (\text{hours each month}) \right] + \left[\left(\text{FR}_{\text{CHROMIUM CONSTANT}} \right) \times (\text{hours each month}) \right] \right\} / 2,000 \text{ (lb/ton)}$$
- (b) Manganese(total) =
$$\left\{ \left[\left(\text{RHF Stack 40}_{\text{MANGANESE}} + \text{RHF Stack 77}_{\text{MANGANESE}} \right) \times \text{RHF}_{\text{HOURS}} \right] + \left[\left(\text{SAF Stack 58}_{\text{MANGANESE}} \times \text{SAF}_{\text{HOURS}} \right) \right] + \left[\left(\text{FR}_{\text{MANGANESE}} - \text{IDD}_{\text{MANGANESE CONSTANT}} \right) \times (\text{hours each month}) \right] + \left[\left(\text{FR}_{\text{MANGANESE CONSTANT}} \right) \times (\text{hours each month}) \right] \right\} / 2,000 \text{ (lb/ton)}$$
- (c) Ethylbenzene(total) =
$$\left(\text{PL}_{\text{ETHYLEBENZENE}} + \text{PL}_{\text{3 ETHYLEBENZENE}} \right) / 2,000 \text{ (lb/ton)}$$

- (d) Glycol Ethers(total) = $(PL_{\text{GLYCOL ETHERS}} + PL3_{\text{GLYCOL ETHERS}}) / 2,000 \text{ (lb/ton)}$
- (e) Isophorone(total) = $(PL_{\text{ISOPHORONE}} + PL3_{\text{ISOPHORONE}}) / 2,000 \text{ (lb/ton)}$
- (f) Naphthalene(total) = $\{ [(\text{IDD}_{\text{NAPHTHALENE CONSTANT}}) \times (\text{hours each month})] + [(PL_{\text{NAPHTHALENE}} + PL3_{\text{NAPHTHALENE}})] + [(FR_{\text{NAPHTHALENE CONSTANT}}) \times (\text{hours each month})] \} / 2,000 \text{ (lb/ton)}$
- (g) Xylene(total) = $\{ [(\text{IDD}_{\text{XYLENE CONSTANT}}) \times (\text{hours each month})] + [(PL_{\text{XYLENE}} + PL3_{\text{XYLENE}})] + [(FR_{\text{XYLENE CONSTANT}}) \times (\text{hours each month})] \} / 2,000 \text{ (lb/ton)}$
- (h) HAPS(total) = $\{ [(\text{IDD}_{\text{HAPS CONSTANT}} + \#79_{\text{CHROMIUM}} + \#79_{\text{MANGANESE}}) \times (\text{hours each month})] + [((\text{RHF Stack } 40_{\text{CHROMIUM}} + \text{RHF Stack } 77_{\text{CHROMIUM}} + \text{RHF Stack } 40_{\text{MANGANESE}} + \text{RHF Stack } 77_{\text{MANGANESE}}) \times \text{RHF}_{\text{HOURS}}] + [(\text{SAF Stack } 58_{\text{CHROMIUM}} + \text{SAF Stack } 58_{\text{MANGANESE}}) \times \text{SAF}_{\text{HOURS}}] + [(PL_{\text{HAPS}} + PL3_{\text{HAPS}})] + (Pickle_{\text{HCl}} \times Pickle_{\text{HOURS}}) + (Pickle2_{\text{HCl}} \times Pickle2_{\text{HOURS}})] + [(FR_{\text{HAPS CONSTANT}} \times \text{hours each month})] \} / 2,000 \text{ (lb/ton)}$

Where:

Note: *Italic* font represents emissions associated with SDI - Flat Roll Division (Plt ID: 033-00043).

Total HAPs Emissions:

PL_{HAPS} = total haps (lb/month) from the paint line as determined in Condition D.10.10 - Volatile organic Compounds (VOC) and Hazardous Air Pollutants (HAP) of this permit.

~~$PL3_{\text{HAPS}}$ = total haps (lb/month) from Paint Line 3 as determined in Condition D.10.11 - Volatile organic Compounds (VOC) and Hazardous Air Pollutants (HAP) of this permit.~~

$\text{IDD}_{\text{HAPS CONSTANT}}$ = 0.74 total HAPs (lb/hr), or a value stated in Condition D.0.3 - Hazardous Air Pollutants of the latest Operating Permit issued to Steel Dynamics, Inc. - Iron Dynamic Division (plt. ID 033-00076), whichever is greater.

$\text{Pickle}_{\text{HCl}}$ = HCl emissions (pound per hour) from the most recent valid compliance demonstration for the pickling line Stack 17.

$\text{Pickle2}_{\text{HCl}}$ = HCl emissions in (pound per hour) from the most recent valid compliance demonstration for Pickling Line 2 Stack Pickle 2. Until an initial stack test is performed $\text{Pickle2}_{\text{HCl}} = 0.32 \text{ lb/hr}$.

$FR_{\text{HAPS CONSTANT}}$ = 0.194 total HAPs (lb/hr)

Chromium Emissions:

$\text{RHF Stack } 40_{\text{CHROMIUM}}$ = chromium emissions (lb/hr) from the rotary hearth furnace Stack 40 as determined in Condition D.0.3 - Hazardous Air Pollutants of the latest

Operating Permit issued to Steel Dynamics, Inc. - Iron Dynamic Division (plt. ID 033-00076).

RHF Stack 77_{CHROMIUM} = chromium emissions (lb/hr) from the rotary hearth furnace fugitive emissions and briquetter baghouses Stack 77 as determined in Condition D.0.3 - Hazardous Air Pollutants of the latest Operating Permit issued to Steel Dynamics, Inc. - Iron Dynamic Division (plt. ID 033-00076).

SAF Stack 58_{CHROMIUM} = chromium emissions (lb/hr) from the submerged arc furnace Stack 58 as determined in Condition D.0.3 - Hazardous Air Pollutants of the latest Operating Permit issued to Steel Dynamics, Inc. - Iron Dynamic Division (plt. ID 033-00076).

~~#79_{CHROMIUM} = chromium emissions (lb/hr) from the SAF Dust Recycling System Stack as determined in Condition D.0.3 - Hazardous Air Pollutants of the latest Operating Permit issued to Steel Dynamics, Inc. - Iron Dynamic Division (plt. ID 033-00076).~~

IDD_{CHROMIUM} CONSTANT = 3.17E-03 Chromium (lb/hr), or a value stated in Condition D.0.3 - Hazardous Air Pollutants of the latest Operating Permit issued to Steel Dynamics, Inc. - Iron Dynamic Division (plt. ID 033-00076), whichever is greater.

FR_{CHROMIUM} CONSTANT = 2.24E-03 Chromium (lb/hr)

Manganese Emissions:

RHF Stack 40_{MANGANESE} = manganese emissions (lb/hr) from the rotary hearth furnace Stack 40 as determined in Condition D.0.3 - Hazardous Air Pollutants of the latest Operating Permit issued to Steel Dynamics, Inc. - Iron Dynamic Division (plt. ID 033-00076).

RHF Stack 77_{MANGANESE} = manganese emissions (lb/hr) from the rotary hearth furnace fugitive emissions and briquetter baghouses Stack 77 as determined in Condition D.0.3 - Hazardous Air Pollutants of the latest Operating Permit issued to Steel Dynamics, Inc. - Iron Dynamic Division (plt. ID 033-00076).

SAF Stack 58_{MANGANESE} = manganese emissions (lb/hr) from the submerged arc furnace Stack 58 as determined in Condition D.0.3 - Hazardous Air Pollutants of the latest Operating Permit issued to Steel Dynamics, Inc. - Iron Dynamic Division (plt. ID 033-00076).

~~#79_{MANGANESE} = manganese emissions (lb/hr) from the SAF Dust Recycling System Stack 79 as determined in Condition D.0.3 - Hazardous Air Pollutants of the latest Operating Permit issued to Steel Dynamics, Inc. - Iron Dynamic Division (plt. ID 033-00076).~~

IDD_{MANGANESE} CONSTANT = 0.16 Manganese (lb/hr), or a value stated in Condition D.0.3 - Hazardous Air Pollutants of the latest Operating Permit issued to Steel Dynamics, Inc. - Iron Dynamic Division (plt. ID 033-00076), whichever is greater.

FR_{MANGANESE} CONSTANT = 0.121 Manganese (lb/hr)

Naphthalene Emissions:

PL_{NAPHTHALENE} = Naphthalene (lb/month) as determined in Condition D.10.10 - Volatile organic Compounds (VOC) and Hazardous Air Pollutants (HAP).

~~$PL_{NAPHTHALENE}^{3}$ = Naphthalene (lb/month) from Paint Line 3 as determined in Condition D.10.11 - Volatile organic Compounds (VOC) and Hazardous Air Pollutants (HAP).~~

$IDD_{NAPHTHALENE\ CONSTANT}$ = 4.27E-05 Naphthalene (lb/hr), or a value stated in Condition D.0.3 - Hazardous Air Pollutants of the latest Operating Permit issued to Steel Dynamics, Inc. - Iron Dynamic Division (plt. ID 033-00076), whichever is greater.

$FR_{NAPHTHALENE\ CONSTANT}$ = 4.41E-04 Naphthalene (lb/hr)

Xylene Emissions:

PL_{XYLENE} = Xylene (lb/month) as determined in Condition D.10.10 - Volatile organic Compounds (VOC) and Hazardous Air Pollutants (HAP).

~~PL_{XYLENE}^{3} = Xylene (lb/month) from Paint Line 3 as determined in Condition D.10.11 - Volatile organic Compounds (VOC) and Hazardous Air Pollutants (HAP).~~

$IDD_{XYLENE\ CONSTANT}$ = 8.81E-05 Xylene (lb/hr), or a value stated in Condition D.0.3 - Hazardous Air Pollutants of the latest Operating Permit issued to Steel Dynamics, Inc. - Iron Dynamic Division (plt. ID 033-00076), whichever is greater.

$FR_{XYLENE\ CONSTANT}$ = 1.60E-04 Xylene (lb/hr)

Ethylbenzene Emissions:

$PL_{ETHYLEBENZENE}$ = Ethylbenzene (lb/month) as determined in Condition D.10.10 - Volatile organic Compounds (VOC) and Hazardous Air Pollutants (HAP).

~~$PL_{ETHYLEBENZENE}^{3}$ = Ethylbenzene (lb/month) from Paint Line 3 as determined in Condition D.10.11 - Volatile organic Compounds (VOC) and Hazardous Air Pollutants (HAP).~~

Glycol Ethers Emissions:

$PL_{GLYCOL\ ETHERS}$ = Glycol Ethers (lb/month) as determined in Condition D.10.10 - Volatile organic Compounds (VOC) and Hazardous Air Pollutants (HAP).

~~$PL_{GLYCOL\ ETHERS}^{3}$ = Glycol Ethers (lb/month) from Paint Line 3 as determined in Condition D.10.11 - Volatile organic Compounds (VOC) and Hazardous Air Pollutants (HAP).~~

Isophorone Emissions:

$PL_{ISOPHORONE}$ = Isophorone (lb/month) as determined in Condition D.10.10 - Volatile organic Compounds (VOC) and Hazardous Air Pollutants (HAP).

~~$PL_{ISOPHORONE}^{3}$ = Isophorone (lb/month) from Paint Line 3 as determined in Condition D.10.11 - Volatile organic Compounds (VOC) and Hazardous Air Pollutants (HAP).~~

Hours of Operations Emissions:

Hours each month = hours in each reporting month;
e.g., June (30 days x 24 hrs/day) = 720 hrs/month

RHF_{HOURS} = Hours of RHF operation for the reporting month.

SAF_{HOURS} = Hours of SAF operation for the reporting month.
 $Pickle_{HOURS}$ = Hours of Pickle line operation for the reporting month.
 $Pickle2_{HOURS}$ = Hours of Pickle 2 line operation for the reporting month.

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

D.0.3 Record Keeping Requirements

- (a) To document the compliance status with Conditions D.0.1 – HAP Minor Limitation and D.0.2 – Hazardous Air Pollutants, the Permittee shall maintain records in accordance with (1) through (2119) below. Records maintained for (1) through (2119) shall be complete and sufficient to establish compliance with the emission limits established in Condition D.0.1.
- (1) Calendar dates covered in the compliance determination period.
 - (2) Monthly records of the HAPs(total) emissions.
 - (3) Monthly records of the Chromium(total) emissions.
 - (4) Monthly records of the Manganese(total) emissions.
 - (5) Monthly records of the Ethylbenzene (total) emissions.
 - (6) Monthly records of the Glycol Ethers (total) emissions.
 - (7) Monthly records of the Isophorone (total) emissions.
 - (8) Monthly records of the Xylene (total) emissions.
 - (9) Monthly records of the Naphthalene (total) emissions.
 - (10) Monthly records of the total haps emissions from the Paint Line 1.
 - ~~(11) Monthly records of the total haps emissions from Paint Line 3.~~
 - (11) RESERVED**
 - (12) The RHF Stack 40_{CHROMIUM} value used in the calculations in Condition D.0.2 – Hazardous Air Pollutants.
 - (13) The RHF Stack 40_{MANGANESE} value used in the calculations in Condition D.0.2 – Hazardous Air Pollutants.
 - (14) The RHF Stack 77_{CHROMIUM} value used in the calculations in Condition D.0.2 – Hazardous Air Pollutants.
 - (15) The RHF Stack 77_{MANGANESE} value used in the calculations in Condition D.0.2 – Hazardous Air Pollutants.
 - (16) The SAF Stack 58_{CHROMIUM} value used in the calculations in Condition D.0.2 – Hazardous Air Pollutants.
 - (17) The SAF Stack 58_{MANGANESE} value used in the calculations in Condition D.0.2 – Hazardous Air Pollutants.
 - ~~(18) The #79_{CHROMIUM} value used in the calculations in Condition D.0.2 – Hazardous Air Pollutants.~~

~~(19) The #79 MANGANESE value used in the calculations in Condition D.0.2 - Hazardous Air Pollutants.~~

(20)(18) The RHF_{hours} value used in the calculations in Condition D.0.3 - Hazardous Air Pollutants.

(24)(19) The SAF_{hours} value used in the calculations in Condition D.0.3 - Hazardous Air Pollutants.

SECTION D.1 FACILITY EMISSIONS UNIT OPERATION CONDITIONS (MELT SHOP)

Emission

Emissions Unit Description:

Melt Shop Operations

(a) Electric Arc Furnaces (EAF)

Two (2) twin shell electric arc furnaces (EAF #1 South, permitted in 1994 for construction and EAF #2 North, permitted in 1997 for construction ~~for construction~~), each with a nominal capacity of 200 tons per hour, using a direct shell evacuation (DSE) system ("fourth hole" duct), an overhead roof exhaust system consisting of a canopy hoods, DSE air gap for carbon monoxide (CO) emissions control, and low-NO_x/oxyfuel burners (combustion control) for nitrogen oxide (NO_x) emissions control. Particulate emissions from EAF #2 North are controlled by EAF Baghouse 2. All emissions from EAF #2 North exhaust to Stack 92. Particulate emissions from EAF #1 South are controlled by EAF Baghouse 1. All emissions from EAF #1 South exhaust to Stack 01.

(b) Continuous Casters

Two (2) continuous casters (CC #1 South, permitted in 1994 for construction and CC #2 North, permitted in 1997 for construction), each with a nominal capacity of 225 tons per hour. Particulate **matter** (PM/PM10) emissions are captured by canopy hoods over each caster exhausting to the EAF baghouse through Stack 01.

(c) Miscellaneous natural gas combustion sources

- (1) Two (2) ladle dryout station (LDS), with a nominal heat input of 10 MMBtu per hour, permitted in 1994 for construction;
- (2) Five (5) ladle preheat stations (LPS), with a nominal heat input of 10 MMBtu per hour each, three (3) permitted in 1994 ~~for construction~~ and one (1) permitted in 1995 for construction;
- (3) Three (3) natural gas -fired tundish **ladle** dryers with a nominal heat input capacity of 1.5 MMBtu per hour each, one (1) permitted in 1994 and two (2) permitted in 1995 for construction;
- (4) Two (2) natural gas-fired tundish ~~ladle~~ preheaters with a nominal heat input capacity of 9.4 MMBtu per hour each, permitted in 1994 for construction; and
- (5) Lancing and cutting of skulls, coils and steel scrap.

(d) Storage Silos and Bins

(1)	Twenty- - two (22) outside storage silos including the following:
(A)	Three (3) EAF dust silos, consisting of:
(i)	Bin vent 5a for particulate matter control, permitted in 1994 for construction,
(ii)	Bin vent 5b for particulate matter control, permitted in 1997 for construction; and
(iii)	Bin vent 5c for particulate matter control, permitted in 2007 for construction.
(B)	Six (6) Lime/carbon silos with bin vents 22 through 27 for particulate matter control, permitted in 1994 and 1997 for construction, and
(C)	Two (2) LMF lime silos, permitted in 1997 for construction, with emissions controlled by bin vents, and exhausting outside.
(D)	Two (2) alloy silos with bin vents 28 and 29 for particulate matter control, permitted in 1994 for construction.
(E)	One (1) carbon injection silo, permitted in 1997 for construction, with emissions controlled by bin vents, exhausting through Stack 46.
(F)	One (1) carbon silo, approved in 2011 for construction, with a nominal throughput of 15 tons per hour, and using bin vent 93 as control.
(G)	One (1) cold mill water treatment silo, constructed in 1997 and permitted in 2015, controlled by bin vent 35, and exhausting to vent 35.
(H)	Six (6) Lime/carbon silos, constructed in 1995 and permitted in 2015, with three (3) silos routed to bin vent 33 for particulate matter control and exhausting through vent 33 and three (3) silos routed to bin vent 34 for particulate matter control and exhausting through vent 34.
(2)	Enclosed, indoor and/or pneumatic conveying to control fugitive emissions.
(e)	Slag pit dig-outs digouts associated with each electric arc furnace.
(f)	Melt shop building openings, dust handling system and melt shop roof monitors.
(The information describing the process contained in this facility emissions unit description box is descriptive information and does not constitute enforceable conditions.)	

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

Compliance Monitoring Requirements **[326 IAC 2-7-~~65~~(1)][326 IAC 2-7-~~56~~(1)]**

D.1.13 Visible Emission Notations

D.1.14 Bag Leak Detection System (BLDS)

The Permittee shall comply with the following:

- (a) The Permittee shall install and operate a continuous bag leak detection system (BLDS) on EAF Baghouse #1 and EAF Baghouse #2.
- (b) The BLDS shall meet the following requirements:
 - (1) The bag leak detection system must be certified by the manufacturer to be capable of detecting particulate matter emissions at concentrations of 0.00044 grains per actual cubic foot or less.
 - (2) The bag leak detection system sensor must provide output of relative particulate matter loading.
 - (3) The bag leak detection system must be equipped with an alarm system that will alarm when an increase in relative particulate loading is detected over a preset level established or verified during a stack test or established according to paragraph (4). The alarm must be located such that it can be heard by the appropriate plant personnel.
 - (4) The bag leak detection system shall be installed and operated in a manner consistent with available written guidance from the U.S. Environmental Protection Agency or the manufacturer's written specifications and recommendations for installation, operation, and adjustment of the system.
 - (5) In no event shall the sensitivity be increased by more than 100 percent or decreased by more than 50 percent over a 365 day period unless such adjustment follows a complete baghouse inspection, which demonstrates the baghouse, is in good operating condition.
 - (6) Failure to take response steps shall be considered a deviation from this permit.
 - (7) Whenever a BLDS is malfunctioning or is down for maintenance or repairs for a period of twenty-four (24) hours or more during operation of the relevant EAF and a backup BLDS is not online within twenty-four (24) hours of shutdown or malfunction of the primary BLDS, the Permittee shall provide a certified opacity reader, who may be an employee of the Permittee or an independent contractor, to take visible emission readings from the relevant unit stack.
 - (A) Visible emission readings ~~from~~ of the applicable EAF Baghouse(s) shall be performed at least once per day during normal daylight operations. ~~-A certified opacity observer shall observe the opacity when the rotary hearth furnace is in operation.~~
 - (B) These observations shall be taken in accordance with 40 CFR 60 Appendix A, Method 9 for at least two six (6) minute averages.
 - (C) If abnormal emissions are observed, the Permittee shall take a reasonable response. Section C.15 – Response to Excursions or Exceedances contains the Permittee's obligations with regard to the reasonable response steps required by this condition. Abnormal emissions are not a deviation from this permit. Failure to take response steps shall be considered a deviation from this permit.

D.1.15 Broken or Failed Bin Vent Detection

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

SECTION D.2—FACILITYEMISSIONS UNIT OPERATION CONDITIONS

(LADLE METALLURGICAL STATIONS)

Emission

Emissions Unit Description:

Ladle Metallurgical Stations

Two (2) Ladle Metallurgical Stations (LMS) (South permitted in 1994 for construction and approved in ~~2012~~**2013** for modification and North permitted in 1998 for construction), each with a nominal capacity of 200 tons per hour. Particulate (PM/PM10) emissions are controlled by the Ladle Metallurgical Furnaces (LMF) baghouse (permitted in 1998 for construction, with a nominal air flow rate of 200,000 standard cubic feet per minute) exhausting through Stack 61. The LMS consists of the following:

- (a) One (1) Ladle Metallurgical Furnace (LMF1), modified in 2013 with the integration of existing stir station 1.
- (b) One (1) Ladle Metallurgical Furnace (LMF2), modified in 2013 with the integration of new stir station 2.
- (c) One (1) Ladle Metallurgical Furnace (LMF3) equipped with integrated stir station 3.

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

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

Compliance Monitoring Requirements **[326 IAC 2-7-~~65~~(1)][326 IAC 2-7-~~56~~(1)]**

SECTION D.3 ~~FACILITY~~EMISSIONS UNIT OPERATION CONDITIONS (TUNNEL FURNACES)

Emission

Emissions Unit Description:

Hot Mill Operations — Tunnel Furnaces

- (a) One (1) tunnel furnace, No. 1 South, permitted in 1994 for construction, using low NOx burners, with a nominal heat input capacity of 117.9 MMBtu per hour (nominal 92 MMBtu per hour in the heating zone and nominal 25.9 MMBtu per hour in the holding zone), exhausting through Stack 2.
- (b) One (1) tunnel furnace, No. 2 North, permitted in 1997 for construction, using low NOx burners with a nominal heat input capacity of 92 MMBtu per hour in the heating zone, exhausting through Stack 42.

(The information describing the process contained in this ~~facility~~**emissions unit** description box is

descriptive information and does not constitute enforceable conditions.)

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

D.3.1 Nitrogen Oxides (NOx) Limitations - Best Available Control Technology [326 IAC 2-2]

- (a) Pursuant to CP 033-3692-00043, issued October 7, 1994 and 326 IAC 2-2 (PSD- Control Technology Review; Requirements), Tunnel Furnace No. 1 shall be equipped with low NOx natural gas fired burners and total NOx emissions shall not exceed 0.17 pounds per MMBtu and 20.0 pounds per hour through Stack 2.
- (b) Pursuant to CP 033-8091-00043, issued June 25, 1997 and 326 IAC 2-2 (PSD- Control Technology Review; Requirements), Tunnel Furnace No. 2 heating zone shall be equipped with low NOx natural gas fired burners and total NOx emissions shall not exceed 0.10 pounds per MMBtu and 9.2 pounds per hour through Stack 42.

D.3.2 Visible Emissions Limitations - Best Available Control Technology [326 IAC 2-2]

- (a) Pursuant to CP 033-3692-00043, issued October 7, 1994 and 326 IAC 2-2 (PSD- Control Technology Review; Requirements), visible emissions from Tunnel furnace No. 1 (Stack 2), shall not exceed five percent (5%). ~~The (%) opacity shall be determined by~~ **based on a six (6) minute average (24 readings taken in accordance with 40 CFR Part 60, Appendix A, Method 9-).**

SECTION D.4 **FACILITY EMISSIONS UNIT OPERATION CONDITIONS (PICKLING LINE)**

Emission

Emissions Unit Description:

Cold Mill Operations — Pickling Lines

- (a) One (1) pickling line, with a nominal capacity of 1.4 million tons of steel throughput per year, permitted in 1996 for construction, with a packed scrubber and covered tanks maintained under negative pressure, for Hydrochloric Acid (HCl) control, and a mist eliminator for PM/PM-10 control, exhausting to Stack 17.
- (b) One (1) Pickling Line, identified as Pickling Line 2, approved in 2015 for construction, with a nominal capacity of 1.4 million tons of steel throughput per year, equipped with a packed scrubber (Pickling Line 2 Fume Scrubber) and covered tanks maintained under negative pressure, for particulate and Hydrochloric Acid (HCl) control, exhausting to Stack Pickle 2.

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

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

D.4.1 Particulate Matter Emissions Limitations - Best Available Control Technology (BACT) [326 IAC 2-2]

D.4.2 PSD Minor Limit [326 IAC 2-2]

In order to render the requirements of 326 IAC 2-2 (PSD) not applicable, the following conditions shall apply:

- (a) Filterable PM emissions from Pickling Line 2 shall not exceed 3.90 pounds per hour.

(b) PM₁₀ emissions from Pickling Line 2 shall not exceed 0.65 pounds per hour.

(c) PM_{2.5} emissions from Pickling Line 2 shall not exceed 0.13 pounds per hour.

Compliance with these emission limits, along with the emission limits in D.5.2, ~~D.6.2(a)~~, and D.7.2, will ensure that the potential to emit from this modification is less than twenty-five (25) tons of PM per twelve (12) consecutive month period, less than fifteen (15) tons of PM₁₀ per twelve (12) consecutive month period, and less than ten (10) tons of direct PM_{2.5} per twelve (12) consecutive month period, and therefore will render the requirements of 326 IAC 2-2 not applicable for the 2015 modification.

D.4.3 Hydrochloric Acid (HCl) Pickling HAP Minor Emission Limitation [40 CFR 63.1]

D.4.4 Preventive Maintenance Plan [326 IAC 2-7-5(12)]

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

D.4.5 Testing Requirements [326 IAC 2-7-6(1),(6)][326 IAC 2-1.1-11]

D.4.6 Particulate and HCl Control

Compliance Monitoring Requirements [326 IAC 2-7-~~65~~(1)][326 IAC 2-7-~~56~~(1)]

D.4.7 Parametric Monitoring [40 CFR 64]

D.4.8 Parametric Monitoring

- (a) The Permittee shall record the flow rate of the packed scrubber used in conjunction with the Pickling Line 2, at least once per day when the Pickling Line 2 is in operation.
- (b) The Permittee shall determine the minimum flow rate from the latest valid stack test that demonstrates compliance with limits in Conditions D.4.2(a), D.4.2(b), D.4.3(c) - PSD Minor Limit and D.4.3(b) - Hydrochloric Acid (HCL) Pickling HAP Minor Emission Limitation. From the date of startup until the stack test results are available, the Permittee shall operate the packed scrubber at a minimum of 1.0 gallons per minute **when Pickling Line 2 is in operation.**

D.4.9 Scrubber Failure Detection

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

SECTION D.5 ~~FACILITY~~EMISSIONS UNIT OPERATION CONDITIONS

(PICKLE LINE SCALE BREAKER AND HOT BAND LEVELER)

Emission

Emissions Unit Description:

Pickle Line Scale Breaker

- (a) One (1) scale breaker, permitted in 1996 for construction, with a nominal capacity of 1.4 million tons of steel throughput per year that removes scale from the rolled steel prior to the pickling process. Particulate (PM/PM₁₀) emissions are controlled by a baghouse with a nominal air flow rate of 10,600 acfm and exhausting to Stack 60.

Hot Band Leveler

- (a) One (1) Hot Band Leveler, constructed in 2012, with a nominal process rate of 160 tons of steel throughput per hour, equipped with a baghouse for particulate control, exhausting ~~to indoors~~ **through** stack Level.

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

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

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

D.5.2 PSD Minor Limit [326 IAC 2-2]

Pursuant to SSM 033-34898-00043 and SPM 033-37274-00043, in order to render the requirements of 326 IAC 2-2 (PSD) not applicable, the following conditions shall apply:

- (a) **Filterable** PM emissions from the Hot Band Leveler shall not exceed 0.00822 pounds per hour.
- (b) PM₁₀ emissions from the Hot Band Leveler shall not exceed 0.00822 pounds per hour.
- (c) PM_{2.5} emissions from the Hot Band Leveler shall not exceed 0.00822 pounds per hour.

Compliance with these emission limits, along with the emission limits in D.4.2, ~~D.6.2, D.7.2 and D.407.2~~, will ensure that the potential to emit from this modification is less than twenty-five (25) tons of PM per twelve (12) consecutive month period, less than fifteen (15) tons of PM₁₀ per twelve (12) consecutive month period, **and** less than ten (10) tons of direct PM_{2.5} ~~per twelve (12) consecutive month period and less than forty (40) tons of VOC per twelve (12) consecutive month period~~, and therefore will render the requirements of 326 IAC 2-2 not applicable for the 2015 modification.

D.5.3 Preventive Maintenance Plan [326 IAC 2-7-5(12)]

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

D.5.4 Particulate Control

- ~~(a)~~ **(a) In order to assure compliance with Condition D.5.1**, the scale breaker baghouse shall be in operation at all times the scale breaker is in operation.
- ~~(b)~~ **(b) In order to assure compliance with Condition D.5.2**, the baghouse for particulate control shall be in operation and control emissions from the Hot Band Leveler at all times that the Hot Band Leveler is in operation.
- ~~(c)~~ 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.5.5 Testing Requirements [326 IAC 2-7-6(1),(6)][326 IAC 2-1.1-11]

Not later than 180 days after start-up of the new Hot Band Leveler, in order to demonstrate compliance with Conditions D.5.2(a), D.5.2(b)), and D.5.2(c), the Permittee shall perform PM, PM₁₀ and PM_{2.5} testing ~~on of the~~ Hot Band Leveler utilizing methods as approved by the commissioner. ~~These tests shall be repeated at least once every five (5) years from the date of this valid compliance demonstration.~~ Testing shall be conducted in accordance with the provisions of 326 IAC 3-6 (Source Sampling Procedures). Condition C.9 – Performance Testing contains the ~~Permittee's~~ **Permittee's** obligation with regard to the performance testing required by this condition. **PM₁₀ and PM_{2.5} includes filterable and condensable PM.**

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

D.5.6 Visible EmissionEmissions Notations [40 CFR 64]

D.5.7 Visible Emissions Notations

- (a) ~~Daily~~ Visible emission notations of the Hot Band Leveler 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 a reasonable response. Condition C.15 — Response to Excursions ~~and/or~~ Exceedances contains the Permittee's obligation with regard to the reasonable response **steps** required by this condition. Failure to take a ~~reasonable~~ response **steps** shall be considered a deviation from this permit.

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

D.5.8 Record Keeping Requirements

- (a) To document the compliance status with Conditions D.5.6 and D.5.7- Visible Emission Notations, the Permittee shall maintain records of ~~the once per day~~ **daily** visible emission notations **of the baghouse(s) stack exhausts**. The Permittee shall include in its daily record when a visible emission notation is not taken and the reason for the lack of a visible emission notation (e.g. the process did not operate that day).

SECTION D.6 ~~FACILITY~~EMISSIONS UNIT OPERATION CONDITIONS (PICKLING LINE BOILERS)

Emission

Emissions Unit Description:

Pickling Line Boilers

- (a) Three (3) natural gas fired boilers Nos. 1, 2 and 3, two (2) permitted in 1996 ~~for construction~~ and one (1) permitted in 2006, equipped with low NOx burners,

<p>exhausting to Stacks 15, 16a and 16b. The nominal heat input for each boiler is 20.4 MMBtu per hour.</p> <p>(b) Two (2) natural gas-fired pickling line boilers, identified as Boilers #4, and #5, approved in 2015 for construction, with a nominal heat input for each boiler of 20.4 MMBtu per hour, equipped with low NOx burners, exhausting to combined Stack Boil456.</p> <p>(The information describing the process contained in this facilityemissions unit description box is descriptive information and does not constitute enforceable conditions.)</p>

D.6.3 Particulate Emission Limitations [326 IAC 6-2-4]

Pursuant to 326 IAC 6-2-4 (Particulate Emission Limitations for Sources of Indirect Heating), the particulate emissions from the following units shall be limited to Pt pounds per MMBtu heat input, as follows:

Emission Unit	Unit ID	Pt (lb/MMBtu)
Pickling Line Boiler	No. 1	0.40 0.32
Pickling Line Boiler	No. 2	0.40 0.32
Pickling Line Boiler	No. 3	0.40 0.32
Pickling Line Boiler	No. 4	0.31 0.28
Pickling Line Boiler	No. 5	0.31 0.28

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

SECTION D.7 ~~FACILITY~~**EMISSIONS UNIT** OPERATION CONDITIONS (REVERSING MILL)

<p>Emission Emissions Unit Description:</p> <p>Reversing Mill</p> <p>(a) One (1) cold reversing mill, with a nominal capacity of one (1.0) million tons of steel throughput per year, permitted in 1996 for construction, with a mist eliminator for particulate (PM/PM10) emissions control, exhausting to Stack 18.</p> <p>(b) One (1) two-stand cold reversing mill, identified as Reversing Mill 2, approved in 2015 for construction, with a nominal capacity of 1.0 million tons of steel throughput per year, equipped with a mist eliminator for particulate control, exhausting to Stack Revmill 2.</p> <p>(The information describing the process contained in this facilityemissions unit description box is descriptive information and does not constitute enforceable conditions.)</p>
--

D.7.2 PSD Minor Limit [326 IAC 2-2]

In order to render the requirements of 326 IAC 2-2 (PSD) not applicable, the following conditions shall apply:

- (a) Filterable PM emissions from Reversing Mill 2 shall not exceed 1.14 pounds per hour.
- (b) PM₁₀ emissions from Reversing Mill 2 shall not exceed 1.14 pounds per hour.

- (c) PM_{2.5} emissions from Reversing Mill 2 shall not exceed 0.57 pounds per hour.

Compliance with these emission limits, along with the emission limits in D.4.2, ~~D.5.2~~, and D.65.2 will ensure that the potential to emit from this modification is less than twenty-five (25) tons of PM per year, less than fifteen (15) tons of PM₁₀ per year, less than ten (10) tons of direct PM_{2.5} per year, and therefore will render the requirements of 326 IAC 2-2 not applicable for the 2015 modification.

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

Compliance Monitoring Requirements ~~[326 IAC 2-7-65(1)]~~[326 IAC 2-7-56(1)]

SECTION D.8 **FACILITY EMISSIONS UNIT OPERATION CONDITIONS**
(GALVANIZING ~~LINE~~LINES)

Emission

Emissions Unit Description:

Galvanizing Lines

- (a) One (1) hot band galvanizing line, identified as Galvanizing Line #1, with a nominal capacity of 570,000 tons of steel throughput per year, permitted in 1996 for construction and for modification in 2015, heated by low NOx burner natural gas fired heaters with a total nominal heat input capacity of 75.7 MMBtu per hour, and consisting of:

- (1) Twenty-four Preheat Burners, permitted in 1996, with a total nominal rated heat input capacity of 44.71 MMBtu/hr, exhausting through Stack 19.

Replacement burners:

- (1) Four (4) Preheat Burners, approved in 2015 for construction, with a total nominal rated heat input capacity of 7.45 MMBtu/hr exhausting through Stack 19.
- (2) Eight (8) Radiant Burners, approved in 2015 for construction, with a total nominal rated heat input capacity of 2.36 MMBtu/hr, exhausting indoors.
- (3) One (1) Drying Burner, approved in 2015 for construction, with a nominal rated heat input capacity of 0.50 MMBtu/hr, exhausting indoors.

New burners:

- (1) Twenty-four (24) Radiant Burners, approved in 2015 for construction, with a total nominal rated heat input capacity of 7.08 MMBtu/hr, exhausting indoors.
- (2) Two (2) Cleaning Burners, approved in 2015 for construction, with a total nominal rated heat input capacity of 10.60 MMBtu/hr, exhausting to Stacks G1C1 and G1C2, respectively.
- (3) One (1) Cleaning Burner, approved in 2015 for construction, with a nominal rated heat input capacity of 3.0 MMBtu/hr, exhausting to Stack G1C3.

(4) Eight (8) Preheat Burners, approved in 2016 for construction, with a total nominal rated heat input capacity of 14.88 MMBtu/hr, exhausting through Stack 19.

- (b) One (1) cold rolled galvanizing line, identified as Galvanizing Line #2, with a nominal capacity of 430,000 tons of steel throughput per year, permitted in 1996 for construction and modified in 2015, heated by low NOx burner natural gas fired heaters, with a total nominal heat input capacity of 93.6 MMBtu per hour, and consisting of :

- (1) Burners, permitted in 1996, with a total nominal rated heat input capacity of 54.15 MMBtu/hr, exhausting to Stack19.

Replacement burners:

- (1) Two (2) Cleaning Burners, approved in 2015 for construction, with a total nominal rated heat input capacity of 10.60 MMBtu/hr, exhausting to Stacks G2C1 and G2C2, respectively.
- (2) One (1) Cleaning Burner, approved in 2015 for construction, with a nominal rated heat input capacity of 3.00 MMBtu/hr, exhausting to Stack G2C3.
- (3) Three (3) Drying Burners, approved in 2015 for construction, with a total nominal rated heat input capacity of 1.50 MMBtu/hr, exhausting indoors.

New burners:

- (1) Eight (8) Preheat Burners, approved in 2015 for construction, with a total nominal rated heat input capacity of 14.90 MMBtu/hr, exhausting through Stack 19.
- (2) Thirty-two (32) Radiant Burners, approved in 2015 for construction, with a total nominal rated heat input capacity of 9.44 MMBtu/hr, exhausting indoors.

Note: This line also includes a backup cleaning burner, with nominal rated heat input capacity of 5.3 MMBtu/hr.

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

D.8.3 Particulate Emissions Limitation [326 IAC 6-2-4]

Pursuant to 326 IAC 6-2-4 (Particulate Emission Limitations for Sources of Indirect Heating), particulate emissions from the new radiant tube and cleaning section burners added in 2015 as part of Galvanizing Line #1 and Galvanizing Line #2 shall each be limited to 0.31628 pounds per MMBtu heat input.

SECTION D.9 FACILITY EMISSIONS UNIT OPERATION CONDITIONS (ANNEALING)

Emission

Emissions Unit Description:

Annealing Furnaces

- (a)** Sixteen (16) low NOx burners, natural gas fired annealing furnaces and forty (40)

annealing bases, permitted in 1996 for construction. Each furnace has a nominal heat input of four (4) MMBtu per hour, exhausting through roof pipes 30, 31 and 32.

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

D.9.3 Particulate Emissions Limitation [326 IAC 6-2-4]

Pursuant to 326 IAC 6-2-4 (Particulate Emission Limitations for Sources of Indirect Heating), particulate emissions from each annealing furnace shall be limited to 0.28 pounds per MMBtu heat input.

SECTION D.10~~FACILITY~~**EMISSIONS UNIT** OPERATION CONDITIONS (PAINT ~~LINE~~**LINE**)

Emission

Emissions Unit Description:

Paint ~~Lines~~**Line** (Coil Coating ~~Lines~~**Line**)

- (a) One (1) 2-side, 2-coat coil coating line, identified as Paint Line 1, permitted in 2002 for construction, using roll coating method, with a nominal capacity of 55,000 pounds per hour of the flat rolled steel, equipped with two (2) curing ovens with a combined nominal heat input capacity of 16 MMBtu per hour, using a 60 MMBtu per hour ~~nominal~~**name plate rated** heat input capacity burner equipped thermal oxidizer to control VOC emissions and exhausting to Stack 78.
- ~~(b) One (1) 2-side, 2-coat coil coating line, identified as Paint Line 3, approved in 2015 for construction, using roll coating method, with a nominal capacity of 55,000 pounds per hour of the flat rolled steel, equipped with two (2) curing ovens, one of which will be heated with burners with a nominal heat input rating of 16 MMBtu per hour and equipped with low NOx burners, and a 60 MMBtu per hour thermal oxidizer (Paint Line 3 Thermal Oxidizer) to control VOC emissions. Heat generated from the thermal oxidizer will be used to heat the second oven. Paint Line 3 exhausts to Stack Paint 3.~~

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

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

D.10.1 Volatile Organic Compounds (VOC) and Hazardous Air Pollutants (HAP) Minor Limit [326 IAC 2-2][40 CFR 63.1]

Pursuant to SSM 033-15836-00043, issued December 31, 2002, to maintain the minor status for this modification, the VOC emissions shall be limited as follows:

- (a) For the 2-side, 2-coat, coil-coating line the input of VOC shall be limited to less than 3894 tons per twelve (12) consecutive month period, with the compliance status demonstrated at the end of each month.
- (b) The combined heat input rate for the two curing ovens shall not exceed 140,160 million Btu per twelve (12) consecutive month period and for the thermal oxidizer shall not exceed 525,600 million Btu per twelve (12) consecutive month period.
- (c) The thermal oxidizer controlling Paint Line 1 shall achieve 99% overall VOC control efficiency at all times Paint Line 1 is in operation.

- (d) Compliance with items (a), (b), and (c) combined, limits the VOC emissions from the 2-side, 2-coat coil coating line modification to less than forty (40) tons per 12 consecutive months period, with the compliance status demonstrated at the end of each month and renders the requirements of 326 IAC 2-2 Prevention of Significant Deterioration (PSD)) not applicable to this modification.
- (e) Pursuant to PSD SSM 033-23028-00043, issued October 26, 2007:
 - (1) The single HAP emissions from the coil coating line shall be limited to less than 10 tons per twelve (12) consecutive month period, with the compliance status demonstrated at the end of each month.
 - (2) The combined HAP emissions from the coil coating line shall be limited to less than 14.6 tons per twelve (12) consecutive month period, with compliance demonstrated at the end of each month.
 - (3) The thermal oxidizer for the coil coating line shall be in operation whenever the coating line is in operation.

Compliance with these limits and requirements, in conjunction with HAP limits on SDI - IDD's rotary hearth furnace, SDI-IDD's RHF Fugitives Baghouse, SDI - IDD's submerged arc furnace, SDI - ~~IDD Unit S79~~, SDI - Flat Roll Division's pickle line, ~~SDI - Flat Roll Division's Paint Line 3~~ and the potential to emit from all other units, limits the source-wide PTE of a single HAP and a combination of HAPs to less than ten (10) and twenty-five (25) tons per twelve (12) consecutive month period, respectively, and renders this an area source under 40 CFR Part 63.

D.10.2 ~~PSD Minor Limit [326 IAC 2-2]~~

~~In order to render the requirements of 326 IAC 2-2 not applicable, the Permittee shall comply with the following:~~

- ~~(a) The input of VOC to Paint Line 3, including cleanup solvent, shall be limited to 2900 tons per twelve (12) consecutive month period with compliance determined at the end of each month.~~
- ~~(b) The thermal oxidizer controlling Paint Line 3 shall achieve a 99% overall VOC control efficiency at all times the Paint Line 3 is in operation.~~

~~Compliance with these limits combined with the potential to emit VOC from other emission units in the 2015 modification, will ensure that the potential to emit from this modification is less than forty (40) tons of VOC per twelve (12) consecutive month period, and therefore will render the requirements of 326 IAC 2-2 not applicable for the 2015 modification.~~

D.10.3 ~~HAPs Minor Limit~~

~~In order to render the requirements of 326 IAC 2-4.1 not applicable, the Permittee shall comply with the following:~~

- ~~(a) The single HAP emissions from Paint Line 3 shall be less than ten (10) tons per twelve (12) consecutive month period, with the compliance status demonstrated at the end of each month.~~
- ~~(b) Total HAP emissions from Paint Line 3 shall be less than twenty-five (25) tons per twelve (12) consecutive month period with compliance determined at the end of each month.~~

~~Compliance with these limits shall limit the potential to emit any single HAP from Paint Line 3 to less than ten (10) tons and the potential to emit any combination of HAPs to less than twenty-five (25) tons, and shall render the requirements of 326 IAC 2-4.1 (Major Sources of Hazardous Air Pollutants) not applicable to Paint Line 3.~~

D.10.4 Volatile Organic Compounds (VOC) [326 IAC 8-2-4]

- (a) Pursuant to SSM 033-15836-00043, issued December 21, 2002 and 326 IAC 8-2-4 (Coil Coating Operations), the volatile organic compound (VOC) discharge to the atmosphere shall be limited to 2.6 pounds VOC per gallon of coating less water delivered to the coating applicator from prime and topcoat or single coat operations.
- (b) Pursuant to 326 IAC 8-1-2 (b), Paint Line 1 VOC emissions shall be limited to no greater than the equivalent emissions, 4.02 pounds of VOC per gallon of coating solids, allowed in (a).

The equivalency emissions are determined by the following equation:

$$E = L / (1 - (L/D))$$

Where:

- L = Applicable emission limit from 326 IAC 8 in pounds of VOC per gallon of coating.
- D = Density of VOC in coating in pounds per gallon of VOC.
- E = Equivalent emission limit in pounds of VOC per gallon of coating solids as applied.

Actual solvent density shall be used to determine the compliance status of the coil coating operation using the compliance methods in 326 IAC 8-1-2 (a).

- (c) Pursuant to 326 IAC 8-1-2(c) the overall control efficiency of the thermal oxidizer controlling Paint Line 1 shall be no less than the equivalent overall efficiency of 46.04% calculated by the following equation:

$$O = \frac{V - E}{V} \times 100$$

Where:

- V = The actual VOC content of the coating or, if multiple coatings are used, the daily weighted average VOC content of all coatings, as applied to the subject coating line as determined by the applicable test methods and procedures specified in 326 IAC 8-1-4 in units of pounds of VOC per gallon of coating solids as applied.
- E = Equivalent emission limit in pounds of VOC per gallon of coating solids as applied.
- O = Equivalent overall efficiency of the capture system and control device as a percentage.

D.10.5 Volatile Organic Compound (VOC) Content Limitations [326 IAC 8-2-4]

- (a) Pursuant to 326 IAC 8-2-4, the Permittee shall not allow the discharge into the atmosphere of VOC in excess of 2.6 pounds of VOC per gallon of coating, excluding water, as delivered to the applicator.
- (b) Pursuant to 326 IAC 8-1-2 (b), Paint Line 3 VOC emissions shall be limited to no greater than the equivalent emissions, expressed as pounds of VOC per gallon of coating solids, allowed in (a).

This equivalency was determined by the following equation:

$$E = L / (1 - (L/D))$$

Where

- ~~L =~~ Applicable emission limit from 326 IAC 8 in pounds of VOC per gallon of coating;
~~D =~~ Density of VOC in coating in pounds per gallon of VOC;
~~E =~~ Equivalent emission limit in pounds of VOC per gallon of coating solids as applied.

~~A solvent density of 7.36 pounds of VOC per gallon of coating shall be used to determine equivalent pounds of VOC per gallon of solids for the applicable emission limit contained in this article.~~

~~Actual solvent density shall be used to determine compliance of the surface coating operation using the compliance methods in 326 IAC 8-1-2 (a).~~

~~(c) The pounds of VOC per gallon of coating solids shall be limited to less than 4.02.~~

~~(d) Pursuant to 326 IAC 8-1-2(c), the overall efficiency of the thermal oxidizer shall be no less than the equivalent overall efficiency calculated by the following equation:~~

$$\text{O} = \frac{V - E}{V} \times 100$$

Where:

- ~~V =~~ The actual VOC content of the coating or, if multiple coatings are used, the daily weighted average VOC content of all coatings, as applied to the subject coating line as determined by the applicable test methods and procedures specified in 326 IAC 8-1-4 in units of pounds of VOC per gallon of coating solids as applied.
~~E =~~ Equivalent emission limit in pounds of VOC per gallon of coating solids as applied.
~~O =~~ Equivalent overall efficiency of the capture system and control device as a percentage.

~~D.10.6~~**D.10.3** Preventive Maintenance Plan [326 IAC 2-7-5(12)]

A Preventive Maintenance Plan is required for the thermal oxidizer associated with the coil coating operation ~~and the thermal oxidizer associated with Paint Line 3.~~ Condition B.10 - Preventive Maintenance Plan contains the Permittee's obligation with regard to the preventive maintenance plan required by this condition.

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

~~D.10.74~~**D.10.7** Permanent Total Enclosure

In order to maintain the minor status for the 2-side, 2-coat, coil coating ~~lines~~line, the Permittee shall use ~~a~~ permanent total enclosure**enclosure**:

- (a) The capture ~~systems~~**system** for the 2-side, 2-coat, coil coating line ~~and Paint Line 3~~ shall ~~each~~ meet the criteria for a Permanent Total Enclosure as described in 40 CFR 51, Method 204.

-or-

- (b) Verify 100% capture through other methods as approved by the Commissioner.

~~D.10.85~~**D.10.8** Thermal Oxidizer

- (a) ~~The thermal oxidizer shall operate with a control efficiency of not less than 99% at all times that the 2-side, 2-coat, coil coating line (Paint Line 1) is in operation. This efficiency is necessary to ensure compliance with Condition D.10.1 - Volatile Organic Compounds (VOC) and Hazardous Air Pollutants (HAP) Minor Limit.~~

(b)(a) In order to demonstrate compliance with Condition D.10.42 - Volatile Organic Compounds (VOC), the thermal oxidizer shall be in operation and control emissions from Paint Line 1 at all times that Paint Line 1 is in operation.

~~(c) Pursuant to 326 IAC 8-1-2(a) and to comply with Conditions D.10.2(b), D.10.3 and D.10.5, the Permittee shall operate the thermal oxidizer at all times Paint Line 3 is in operation.~~

~~D.10.9~~**D.10.6** Testing Requirements [326 IAC 3-6][326 IAC 2-7-6(1),(6)]

(a) In order to demonstrate compliance with Conditions D.10.1(c) - Volatile Organic Compounds (VOC) and Hazardous Air Pollutants (HAP) Minor Limit and D.10.42 - Volatile Organic Compounds (VOC), the Permittee shall perform VOC thermal oxidizer control efficiency testing of the thermal oxidizer controlling Paint Line 1 utilizing methods as approved by the Commissioner at least once every five (5) years from the date of the most recent valid compliance demonstration.

(b) In order to demonstrate compliance with Condition D.10.1(d) - Volatile Organic Compounds (VOC) and Hazardous Air Pollutants (HAP) Minor Limit, within 180 days of the end of the month in which it is determined that VOC emissions equal or exceed ~~four and one half (4.5)~~**nine (9)** tons for any twelve (12) consecutive month period, the Permittee shall perform inlet and outlet HAP testing on the thermal oxidizer controlling emissions from the coil coating line (Step #1). Testing shall be done utilizing Method 18 or other methods approved by the Commissioner, for the HAP used at the source that has the lowest destruction efficiency, as estimated by the manufacturer and approved by IDEM or using an estimation method approved by IDEM. If the VOC emissions equal or exceed ~~four and one half (4.5)~~**nine (9)** tons for any twelve (12) consecutive month period more than once in a period of 4.5 years, then a subsequent test shall be conducted within 5 years from the date of the last valid compliance demonstration (Step #2). If within 4.5 years after the second valid compliance demonstration the VOC emissions do not equal or exceed ~~four and one half (4.5)~~**nine (9)** tons for any twelve (12) consecutive month period, then the Permittee is not required to repeat inlet and outlet HAP testing until the VOC emissions equal or exceed ~~four and one half (4.5)~~**nine (9)** tons for any twelve (12) consecutive month period at which time the Permittee shall repeat Step #1. If within 4.5 years after the second valid compliance demonstration the VOC emissions equal or exceed ~~four and one half (4.5)~~**nine (9)** tons for any twelve (12) consecutive month period, then the Permittee shall repeat Step #2.

~~(c) In order to demonstrate compliance with Conditions D.10.2(b) and D.10.8, not later than one hundred and eighty (180) days after initial startup of Paint Line 3, the Permittee shall perform VOC thermal oxidizer control efficiency testing of the thermal oxidizer controlling Paint Line 3, utilizing methods as approved by the Commissioner at least once every five (5) years from the date of the most recent valid compliance demonstration.~~

~~(d) In order to demonstrate compliance with Condition D.10.3(a), not later than 180 days of the end of the month in which it is determined that VOC emissions equal or exceed four and one half (4.5) tons for any twelve (12) consecutive month period, the Permittee shall perform inlet and outlet HAP testing on the thermal oxidizer controlling emissions from Paint Line 3 (Step #1). Testing shall be done utilizing Method 18 or other methods approved by the Commissioner, for the HAP used at the source that has the lowest destruction efficiency, as estimated by the manufacturer and approved by IDEM or using an estimation method approved by IDEM. If the VOC emissions equal or exceed four and one half (4.5) tons for any twelve (12) consecutive month period more than once in a period of 4.5 years, then a subsequent test shall be conducted within 5 years from the date of the last valid compliance demonstration (Step #2). If within 4.5 years after the second valid compliance demonstration the VOC emissions do not equal or exceed four and one half (4.5) tons for any twelve (12) consecutive month period, then the Permittee is not required to repeat inlet and outlet HAP testing until the VOC emissions equal or~~

~~exceed four and one half (4.5) tons for any twelve (12) consecutive month period at which time the Permittee shall repeat Step #1. If within 4.5 years after the second valid compliance demonstration the VOC emissions equal or exceed four and one half (4.5) tons for any twelve (12) consecutive month period, then the Permittee shall repeat Step #2.~~

- ~~(e) Not later than 180 days after start-up of the of Paint Line 3 curing oven, the Permittee shall perform NOx testing on the Paint Line 3 curing oven to verify the NOx emission factor, utilizing methods as approved by the Commissioner.~~
- ~~(f) Not later than 180 days after start-up of the of Paint Line 3 thermal oxidizer, the Permittee shall perform NOx testing on the Paint Line 3 thermal oxidizer to verify the NOx emission factor, utilizing methods as approved by the Commissioner.~~
- ~~(g)(c)~~ Testing shall be conducted in accordance with the provisions of 326 IAC 3-6 (Source Sampling Procedures). Condition C.9 - Performance Testing contains the Permittee's obligations with regard to the testing required by this condition.

D.10.407 Volatile Organic Compounds (VOC) and Hazardous Air Pollutants (HAP)

- (a) The compliance status with Condition D.10.1 - Volatile Organic Compounds (VOC) and Hazardous Air Pollutants (HAP) Minor Limit shall be demonstrated at the end of each month. This shall be based on the total volatile organic compound emitted for the previous month, and adding it to previous 11 months total VOC emitted so as to arrive at the VOC emission rate for 12 consecutive months period. The VOC emissions for a month can be arrived at using the following equation for VOC usage:

$$\text{VOC emitted} = [(\text{VOC input}) \times (100\% - \text{Percent Overall VOC control efficiency of thermal oxidizer})]$$

Where VOC input is based on the formulation data supplied by the coating manufacturer. IDEM, OAQ reserves the authority to determine compliance using Method 24 in conjunction with the analytical procedures specified in 326 IAC 8-1-4.

- (b) If VOC emissions from the 2-side, 2-coat coil line (Paint Line 1) exceed ~~four and one half (4.5)~~**nine (9)** tons for any twelve consecutive month period, or if the Permittee chooses to demonstrate compliance with Condition D.10.1(d) - Volatile Organic Compounds (VOC) and Hazardous Air Pollutants (HAP) Minor Limit using the HAP control efficiency, the Permittee shall determine the single and combination HAP emissions for each month using the following methodology:

$$\text{HAP emitted} = [(\text{HAP input}) \times (100\% - \text{Percent Overall control efficiency of thermal oxidizer})]$$

Where:

HAP input is based on the formulation data supplied by the coating manufacturer.

Until the initial Method 18 stack test is performed, an overall control efficiency of 99% shall be used in the equation above.

~~**D.10.11 Volatile Organic Compounds (VOC) and Hazardous Air Pollutants (HAP)**~~

- ~~(a) The compliance status with Condition D.10.2(a) shall be demonstrated at the end of each month. This shall be based on the total volatile organic compound emitted for the previous month, and adding it to previous 11 months total VOC emitted so as to arrive at the VOC emission rate for 12 consecutive months period. The VOC emissions for a month can be arrived at using the following equation for VOC usage:~~

$$\text{VOC emitted} = [(\text{VOC input}) \times (100\% - \text{Percent Overall control efficiency of thermal oxidizer})]$$

Where VOC input is based on the formulation data supplied by the coating manufacturer. IDEM, OAQ reserves the authority to determine compliance using Method 24 in conjunction with the analytical procedures specified in 326 IAC 8-1-4.

- (b) If VOC emissions from Paint Line 3 exceed four and one half (4.5) tons for any twelve consecutive month period, or if the Permittee chooses to demonstrate compliance with Condition D.10.2(a) using the HAP control efficiency, the Permittee shall determine the single and combination HAP emissions for each month using the following methodology:

$$\text{HAP emitted} = [(\text{HAP input}) \times (100\% - \text{Percent Overall control efficiency of thermal oxidizer})]$$

Where:

HAP input is based on the formulation data supplied by the coating manufacturer.

Until the initial Method 18 stack test is performed, an overall control efficiency of 99% shall be used in the equation above.

Compliance Monitoring Requirements [326 IAC 2-7-65(1)][326 IAC 2-7-56(1)]

D.10.428 Thermal Oxidizer Temperature [40 CFR 64]

D.10.13 Thermal Oxidizer Temperature

- (a) A continuous monitoring system shall be calibrated, maintained, and operated on the thermal oxidizer controlling Paint Line 3 for measuring operating temperature. For the purpose of this condition, continuous means no less often than once per fifteen (15) minutes. The output of this system shall be recorded as 3-hour average. From the date of startup until the stack test results are available, the Permittee shall operate the thermal oxidizer at or above the 3-hour average temperature of 1,400°F.
- (b) The Permittee shall determine the 3-hour average temperature from the most recent valid stack test that demonstrates compliance with limits in Condition D.10.2(b).
- (c) On and after the date the stack test results are available, the Permittee shall operate the thermal oxidizer at or above the 3-hour average temperature as observed during the compliant stack test.

D.10.14 Parametric Monitoring

- (a) The Permittee shall determine the appropriate duct pressure or fan amperage from the most recent valid stack test that demonstrates compliance with limits in condition D.10.2(b) for the Paint Line 3 Thermal Oxidizer.
- (b) The duct pressure or fan amperage shall be observed at least once per day when the thermal oxidizer is in operation. On and after the date the stack test results are available, the duct pressure or fan amperage shall be maintained within the normal range as established in most recent compliant stack test.

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

D.10.459 Record Keeping Requirements

- (a) To document the compliance status with Condition D.10.1 - Volatile Organic Compounds (VOC) and Hazardous Air Pollutants (HAP) Minor Limit, the Permittee shall maintain records in accordance with (1) through (3) below. Records maintained for (1) through (3)

shall be taken monthly and shall be complete and sufficient to establish compliance with the VOC usage limits and/or the VOC emission limits established in Condition D.10.1 - Volatile Organic Compounds (VOC) and Hazardous Air Pollutants (HAP) Minor Limit.

- (1) The VOC content of each coating material and solvent used less water.
- (2) The amount of coating material and solvent used on a monthly basis.

Records may include, for example, purchase orders, invoices, and material safety data sheets (MSDS) or any other information necessary to verify the type and amount used.

- (3) The total VOC usage for each month.

- (b) To document the compliance status with Conditions D.10.1 - Volatile Organic Compounds (VOC) and Hazardous Air Pollutants (HAP) Minor Limit and D.10.85 - Thermal Oxidizer, the Permittee shall maintain records in accordance with (1) through (2) below.

- (1) The continuous temperature records (on a three hour average basis) for the thermal oxidizer and the average temperature used to demonstrate compliance during the most recent compliant stack test. The Permittee shall include in its continuous record when a temperature is not taken and the reason for the lack of a temperature recording (e.g. the process was not in operation).
- (2) Daily records of the duct pressure or fan amperage. The Permittee shall include in its daily record when a pressure or amperage reading is not taken and the reason for the lack of pressure or amperage reading (e.g. the process did not operate that day).

- (c) If VOC emissions from the 2-side, 2-coat coil coating line equal or exceed ~~four and one half (4.5) tons~~ **nine (9) tons** for any twelve (12) consecutive month period, then the Permittee shall determine the compliance status with the HAP limits in Condition D.10.1(d) - Volatile Organic Compounds (VOC) and Hazardous Air Pollutants (HAP) Minor Limit using the HAP control efficiency, the Permittee shall thereafter maintain records in accordance with (1) through (3) below. Records maintained for (1) through (3) shall be taken monthly and shall be complete and sufficient to establish compliance with the HAP emission limits established in Condition D.10.1(d) - Volatile Organic Compounds (VOC) and Hazardous Air Pollutants (HAP) Minor Limit.

- (1) The amount and HAP content of each coating material and solvent used each month. Records may include, for example, inventory records and Material Safety Data Sheets (MSDS) necessary to verify the type and amount used.
- (2) The single and combined HAP usage for each month.
- (3) The weight of the single and combined HAPs emitted for each compliance period.

- ~~(d) To document the compliance status with Conditions D.10.2(a) PSD Minor Limit, D.10.3 - HAPs Minor Limit, and D.10.5 Volatile Organic Compound (VOC) Content Limitations, the Permittee shall maintain records in accordance with (1) through (3) below. Records maintained for (1) through (3) shall be taken monthly and shall be complete and sufficient to establish compliance with the VOC usage limits and/or the VOC emission limits established in Condition D.10.3 - HAPs Minor Limit and D.10.5 - Volatile Organic Compound (VOC) Content Limitations.~~

- ~~(1) The VOC content of each coating material and solvent used less water.~~

~~(2) The amount of coating material and solvent used on a monthly basis.~~

~~Records may include, for example, purchase orders, invoices, and material safety data sheets (MSDS) or any other information necessary to verify the type and amount used.~~

~~(3) The total VOC usage for each month.~~

~~(e) To document the compliance status with Conditions D.10.2(a) - PSD Minor Limit, D.10.3 HAPs Minor Limit and D.10.13 - Thermal Oxidizer Temperature, the Permittee shall maintain records in accordance with (1) through (2) below.~~

~~(1) The continuous temperature records (on a three hour average basis) for the thermal oxidizer and the average temperature used to demonstrate compliance during the most recent compliant stack test. The Permittee shall include in its continuous record when a temperature is not taken and the reason for the lack of a temperature recording (e.g. the process was not in operation).~~

~~(2) Daily records of the duct pressure or fan amperage. The Permittee shall include in its daily record when a pressure or amperage reading is not taken and the reason for the lack of pressure or amperage reading (e.g. the process did not operate that day).~~

~~(f) If VOC emissions from Paint Line 3 equal or exceed four and one half (4.5) tons for any twelve (12) consecutive month period, then the Permittee shall determine the compliance status with the HAP limits in Condition D.10.3 - HAPs Minor Limit using the HAP control efficiency, the Permittee shall thereafter maintain records in accordance with (1) through (3) below. Records maintained for (1) through (3) shall be taken monthly and shall be complete and sufficient to establish compliance with the HAP emission limits established in Condition D.10.3 - HAPs Minor Limit.~~

~~(1) The amount and HAP content of each coating material and solvent used each month. Records may include, for example, inventory records and Material Safety Data Sheets (MSDS) necessary to verify the type and amount used.~~

~~(2) The single and combined HAP usage for each month.~~

~~(3) The weight of the single and combined HAPs emitted for each compliance period.~~

~~(g)(d)~~ Condition C.18 - General Record Keeping Requirements contains the Permittee's obligations with regard to the records required by this condition.

D.10.4610 Reporting Requirements

Quarterly summaries of the information to document the compliance status with Conditions D.10.1- Volatile Organic Compounds (VOC) and Hazardous Air Pollutants (HAP) Minor Limit and ~~D.10.2(a) - PSD Minor Limit~~ shall be submitted, using the reporting forms located at the end of this permit, or their equivalent, no later than thirty (30) days after the end of the quarter being reported. Condition C.18 - General Reporting Requirements contains the Permittee's obligation with regard to the reporting required by this condition. The report submitted by the Permittee does require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35).

D.10.4711 General Provisions Relating to NSPS [326 IAC 12-1][40 CFR Part 60, Subpart A]

D.10.4812 Metal Coil Surface Coating NSPS [40 CFR 60, Subpart TT][326 IAC 12]

SECTION D.11 ~~FACILITY~~ **EMISSIONS UNIT** OPERATION CONDITIONS (SLAG PROCESSING)

~~Emission~~**Emissions** Unit Description:

~~A~~-Slag Handling Operation

The following slag handling operations are owned and operated by Edward C. Levy Company - Butler Mill Service.

- (a) One (1) grizzly feeder with a nominal capacity of 300 tons per hour, permitted in 1994 for construction;
- (b) One (1) 36" conveyor (#9), with a nominal capacity of 350 tons per hour, permitted in 1994 for construction;
- (c) One (1) 42" conveyor (#7), with a nominal capacity of 350 tons per hour, permitted in 1994 for construction;
- (d) Two (2) 5' by 12' Screens, each with a nominal capacity of 350 tons per hour, permitted in 1994 for construction;
- (e) One (1) 36" conveyor (#6), with a nominal capacity of 193 tons per hour, constructed in 1994 and modified in 2014;
- (f) One (1) 30" conveyor (#5), with a nominal capacity of 250 tons per hour, permitted in 1994 for construction;
- (g) Three (3) 6' by 16' Screens, each with a nominal capacity of 250 tons per hour, permitted in 1994 for construction;
- (h) One (1) 48" Conveyor (#1), with a nominal capacity of 75 tons per hour, permitted in 1994 for construction;
- (i) One (1) 30" Stacker (#1), with a nominal capacity of 75 tons per hour, permitted in 1994 for construction;
- (j) One (1) 24" Stacker (#2), with a nominal capacity of 125 tons per hour, permitted in 1994 for construction;
- (k) One (1) 24" Conveyor (#12); with a nominal capacity of 40 tons per hour, permitted in 1994 for construction;
- (l) One (1) 24" Stacker (#4), with a nominal capacity of 50 tons per hour, permitted in 1994 for construction;
- (m) One (1) 4 ¼ Standard Crusher, with a nominal capacity of 50 tons per hour, permitted in 1994 for construction;
- (n) One (1) 30" Conveyor (#8), with a nominal capacity of 25 tons per hour; permitted in 1994 for construction;
- (o) Two (2) 30" Conveyors (#10 and #11), with a nominal capacity of 50 tons per hour each, permitted in 2003 for construction;
- (p) One (1) jaw crusher, identified as J01, with a nominal capacity of 193 tons per hour,

approved in 2014 for construction.

(q) Aggregate Storage Piles.

(r) Three (3) slag storage areas, approved in 2013 for construction, identified as Slag Area 1, 2, and 3, each with a nominal throughput of 400 tons per hour.

Fugitive emissions from **parts of** the slag handling operations are controlled as needed by water sprays.

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

SECTION D.12 ~~FACILITY OPERATION~~ **EMISSIONS UNIT OPERATION CONDITIONS (FUGITIVE DUST)**

Emission

Emissions Unit Description:

Fugitive Dust Sources ~~consisting of but not limited to the following:~~

- (a) Paved roads,
- (b) Parking areas,
- (c) Unpaved roads, and
- (d) Traveled open areas.

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

SECTION D.13 ~~_____~~ **FACILITY EMISSIONS UNIT OPERATION CONDITIONS (EMERGENCY GENERATORS)**

Emission

Emissions Unit Description:

Emergency Generators

- (a) Three (3) emergency diesel generators, identified as CM Watertreat, Main Watertreat (East), and Main Watertreat (West), approved in 1996, 1997, and 1995 for construction, each with a nominal capacity of 1500Kw (2011 hp). [40 CFR 63, Subpart ZZZZ]

Insignificant Activities

- (b) Emergency generators as follows: Diesel generators not exceeding one thousand six hundred (1,600) horsepower.
 - (1) One (1) emergency diesel generator, identified as Melt Shop (Door 26), approved 2010 for construction, with a nominal capacity of 500 Kw- **(670 hp)**. [40 CFR 60, Subpart IIII][40 CFR 63, Subpart ZZZZ]

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

SECTION D.13—**FACILITY EMISSIONS UNIT OPERATION**
CONDITIONS (**EMERGENCY GENERATORS**)

Emission

Emissions Unit Description:

Emergency Generators

- (a) Three (3) emergency diesel generators, identified as CM Watertreat, Main Watertreat (East), and Main Watertreat (West), approved in 1996, 1997, and 1995 for construction, each with a nominal capacity of 1500Kw (2011 hp). [40 CFR 63, Subpart ZZZZ]

Insignificant Activities

- (b) Emergency generators as follows: Diesel generators not exceeding one thousand six hundred (1,600) horsepower.
- (1) One (1) emergency diesel generator, identified as Melt Shop (Door 26), approved 2010 for construction, with a nominal capacity of 500 Kw- **(670 hp)**. [40 CFR 60, Subpart IIII][40 CFR 63, Subpart ZZZZ]

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

D.13.4 Stationary Compression Ignition Internal Combustion Engines NSPS [40 CFR 60, Subpart IIII][326 IAC 12]

Pursuant to 40 CFR 60, Subpart IIII, the Permittee shall comply with the provisions of 40 CFR 60, Subpart IIII, which are incorporated by reference as 326 IAC 12, (included as Attachment G of this permit) for the emergency diesel generator, identified as Melt Shop (Door 26):

- (1) 40 CFR 60.4200(a)(2)(i), (a)(4)
(2) 40 CFR 60.4205(b)
(3) 40 CFR 60.4206
(4) 40 CFR 60.4207(a), (b)
(5) 40 CFR 60.4208
(6) 40 CFR 60.4209(a)
(7) 40 CFR 60.4211(a), (c), (f)
(8) 40 CFR 60.4218**4214(b)**
(9) 40 CFR 60.4218
(10) 40 CFR 60.4219
(~~10~~**11**) Table 8 to 40 CFR 60, Subpart IIII

SECTION D.14—**FACILITY EMISSIONS UNIT OPERATION CONDITIONS**

Emission

Emissions Unit Description:

Insignificant Activities

- (a) Natural gas-fired combustion sources with heat input equal to or less than ten million (10,000,000) Btu per hour-~~l~~. [326 IAC 6-2-4]
- (1) Eighteen (18) natural gas-fired heating units, each with a nominal rating of 250,000 Btu/hr. This is the total number of units for both Steel Dynamics, Inc. - Flat Roll Division and Steel Dynamics, Inc. - Iron Dynamics Division.

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

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

D.14.1 Particulate Emissions Limitation [326 IAC 6-2-4]

SECTION D.15 ~~FACILITY~~**EMISSIONS UNIT** OPERATION CONDITIONS

Emission

Emissions Unit Description:

Insignificant Activities

- (c) A gasoline fuel transfer dispensing operation handling less than or equal to one thousand three hundred (1,300) gallons per day and filling storage tanks having a capacity equal to or less than ten thousand five hundred (10,500) gallons. Such storage tanks may be in a fixed location or on mobile equipment. This facility includes the following:
- (1) One (1) gasoline storage tank, approved in 2013 for construction, identified as T2 or Gasoline Storage Tank #2, with a nominal storage capacity of two thousand (2,000) gallons. [40 CFR 63, Subpart CCCCCC]
- (2) One (1) gasoline storage tank, approved in 2013 for construction, identified as T3 or Gasoline Storage Tank #3, with a nominal storage capacity of five thousand (5,000) gallons. [40 CFR 63, Subpart CCCCCC]

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

SECTION D.16 ~~FACILITY~~**EMISSIONS UNIT** OPERATION CONDITIONS

Emission

Emissions Unit Description:

Insignificant Activities

- (d) Covered conveyors for solid raw material, including the following: [326 IAC 6-3-2]
- (1) Coal or coke conveying of less than or equal to three hundred sixty (360) tons per day.
- (2) Limestone conveying of less than or equal to seven thousand two hundred (7,200) tons per day for sources other than mineral processing plants

constructed after August 31, 1983.

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

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE AND ENFORCEMENT BRANCH

Part 70 Quarterly Report

Source Name: Steel Dynamics, Inc. - Flat Roll Division
Source Address: 4500 County Road 59, Butler, IN 46721
Part 70 Permit No.: T033-30061-00043
Facility: 2-side, 2-coat, coil coating line (paint line)
Parameter: single HAP emission
Limits: Less than 10 tons per 12 consecutive month period with compliance demonstrated on a monthly basis

Quarter _____ YEAR: _____

QUARTER : _____ YEAR: _____

Month	Column 1	Column 2	Column 1 + Column 2
	This Month	Previous 11 Months	12 Month Total
Month 1			
Month 2			
Month 3			

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE AND ENFORCEMENT BRANCH

Part 70 Quarterly Report

Source Name: Steel Dynamics, Inc. - Flat Roll Division
Source Address: 4500 County Road 59, Butler, IN 46721
Part 70 Permit No.: T033-30061-00043

Facility: 2-side, 2-coat, coil coating line (paint line)
Parameter: combination of HAP emissions
Limits: 14.60 tons per 12 consecutive month period with compliance demonstrated on a monthly basis

Quarter _____ YEAR: _____

QUARTER : _____ YEAR: _____

Month	Column 1	Column 2	Column 1 + Column 2
	This Month	Previous 11 Months	12 Month Total
Month 1			
Month 2			
Month 3			

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE AND ENFORCEMENT BRANCH

Part 70 Quarterly Report

Source Name: Steel Dynamics, Inc. - Flat Roll Division
Source Address: 4500 County Road 59, Butler, IN 46721
Part 70 Permit No.: T033-30061-00043
Facility: 2-side, 2-coat, coil coating line (paint line)
Parameter: VOC usage for the coil coating line (paint line)
Limits: 3894 tons per 12 consecutive month period with compliance demonstrated on a monthly basis

Quarter _____ YEAR: _____

QUARTER : _____ YEAR: _____

Month	Column 1	Column 2	Column 1 + Column 2
	This Month	Previous 11 Months	12 Month Total
Month 1			

Month 2			
Month 3			

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE AND ENFORCEMENT BRANCH

Part 70 Quarterly Report

Source Name: Steel Dynamics, Inc. - Flat Roll Division
Source Address: 4500 County Road 59, Butler, IN 46721
Part 70 Permit No.: T033-30061-00043
Facility: Entire Source
Parameter: combination of HAP emissions
Limits: less than twenty-five (25) tons per twelve (12) consecutive month period with compliance demonstrated on a monthly basis

Quarter _____ YEAR: _____

QUARTER : _____ YEAR: _____

Month	Column 1	Column 2	Column 1 + Column 2
	This Month	Previous 11 Months	12 Month Total
Month 1			
Month 2			
Month 3			

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE AND ENFORCEMENT BRANCH

Part 70 Quarterly Report

Source Name: Steel Dynamics, Inc. - Flat Roll Division
Source Address: 4500 County Road 59, Butler, IN 46721
Part 70 Permit No.: T033-30061-00043
Facility: Entire Source
Parameter: chromium emissions
Limits: less than ten (10) tons per twelve (12) consecutive month period with compliance demonstrated on a monthly basis

Quarter _____ YEAR: _____

QUARTER : _____ YEAR: _____

Month	Column 1	Column 2	Column 1 + Column 2
	This Month	Previous 11 Months	12 Month Total
Month 1			
Month 2			
Month 3			

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT OFFICE OF AIR QUALITY COMPLIANCE AND ENFORCEMENT BRANCH

Part 70 Quarterly Report

Source Name: Steel Dynamics, Inc. - Flat Roll Division
Source Address: 4500 County Road 59, Butler, IN 46721
Part 70 Permit No.: T033-30061-00043
Facility: Entire Source
Parameter: manganese emissions
Limits: less than ten (10) tons per twelve (12) consecutive month period with compliance demonstrated on a monthly basis

Quarter _____ YEAR: _____

QUARTER : _____ YEAR: _____

Month	Column 1	Column 2	Column 1 + Column 2
	This Month	Previous 11 Months	12 Month Total

Month 1			
Month 2			
Month 3			

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE AND ENFORCEMENT BRANCH

Part 70 Quarterly Report

Source Name: Steel Dynamics, Inc. - Flat Roll Division
Source Address: 4500 County Road 59, Butler, IN 46721
Part 70 Permit No.: T033-30061-00043
Facility: Entire Source
Parameter: Ethylbenzene emissions
Limits: less than ten (10) tons per twelve (12) consecutive month period with compliance demonstrated on a monthly basis

Quarter _____ YEAR: _____

QUARTER : _____ YEAR: _____

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE AND ENFORCEMENT BRANCH

Part 70 Quarterly Report

Source Name: Steel Dynamics, Inc. - Flat Roll Division
Source Address: 4500 County Road 59, Butler, IN 46721
Part 70 Permit No.: T033-30061-00043
Facility: Entire Source
Parameter: Glycol Ethers emissions
Limits: less than ten (10) tons per twelve (12) consecutive month period with compliance demonstrated on a monthly basis

Quarter _____ YEAR: _____

QUARTER : _____ YEAR: _____

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE AND ENFORCEMENT BRANCH

Part 70 Quarterly Report

Source Name: Steel Dynamics, Inc. - Flat Roll Division
Source Address: 4500 County Road 59, Butler, IN 46721
Part 70 Permit No.: T033-30061-00043
Facility: Entire Source
Parameter: Isophorone emissions
Limits: less than ten (10) tons per twelve (12) consecutive month period with compliance demonstrated on a monthly basis

Quarter _____ YEAR: _____

QUARTER : _____ YEAR: _____

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE AND ENFORCEMENT BRANCH

Part 70 Quarterly Report

Source Name: Steel Dynamics, Inc. - Flat Roll Division
Source Address: 4500 County Road 59, Butler, IN 46721
Part 70 Permit No.: T033-30061-00043
Facility: Entire Source
Parameter: Xylene emissions
Limits: less than ten (10) tons per twelve (12) consecutive month period with compliance demonstrated on a monthly basis

Quarter _____ YEAR: _____

QUARTER : _____ YEAR: _____

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE AND ENFORCEMENT BRANCH

Part 70 Quarterly Report

Source Name: Steel Dynamics, Inc. - Flat Roll Division
Source Address: 4500 County Road 59, Butler, IN 46721
Part 70 Permit No.: T033-30061-00043
Facility: Entire Source
Parameter: Naphthalene emissions

Limits: less than ten (10) tons per twelve (12) consecutive month period with compliance demonstrated on a monthly basis

Quarter _____ YEAR: _____

QUARTER : _____ YEAR: _____

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

QUARTERLY REPORT

Source Name: _____ Steel Dynamics, Inc. - Flat Roll Division
Source Address: _____ 4500 County Road 59, Butler, IN 46721
Part 70 Permit No.: _____ T033-30061-00043
Facility: _____ Paint Line 3
Parameter: _____ VOC Input
Limits: _____ 2900 tons per 12 consecutive month period with compliance demonstrated on a monthly basis

QUARTER _____ YEAR: _____

Month	Column 1 VOC Input (tons)	Column 2 VOC Input (tons)	Column 1 + Column 2 VOC Input (tons)
	This Month	Previous 11 Months	12 Month Total

Submitted by: _____
Title / Position: _____
Signature: _____
Date: _____
Phone: _____

Conclusion and Recommendation

The operation of this proposed modification shall be subject to the conditions of the attached Significant Permit Modification No. 033-37274-00043.

The staff recommends to the Commissioner that the Part 70 Significant Permit Modification be approved.

IDEM Contact

- (a) Questions regarding this proposed permit can be directed to Thomas Olmstead at the Indiana Department Environmental Management, Office of Air Quality, Permits Branch, 100 North Senate Avenue, MC 61-53 IGCN 1003, Indianapolis, Indiana 46204-2251 or by telephone at (317) 233-9664 or toll free at 1-800-451-6027 extension 3-9664.
- (b) A copy of the findings is available on the Internet at: <http://www.in.gov/ai/appfiles/idem-caats/>
- (c) For additional information about air permits and how the public and interested parties can participate, refer to the IDEM Permit Guide on the Internet at: <http://www.in.gov/idem/5881.htm>; and the Citizens' Guide to IDEM on the Internet at: <http://www.in.gov/idem/6900.htm>.

**ATSD Appendix A: Emissions Calculations
PTE Summary**

Company Name: Steel Dynamics, Inc. - Flat Roll Division
Address City IN Zip: 4500 County Road 59, Butler, IN 46721
Significant Permit Modification No.: 033-37274-00043
Plant ID: 033-00043
Reviewer: Thomas Olmstead/Heath Hartley
Date: August, 2016

Potential to Emit (ton/yr)										
Unit	PM	PM₁₀	PM_{2.5}	SO₂	NO_x	VOC	CO	Pb	Fluorides	HG
Electric Arc Furnaces & Casters	103294.86	298407.38	>100	>100	>100	>100	>100	565.90	-	0.19
Ladle Metallurgical Stations	2402.74	2402.74	245.28	61.32	42.05	5.78	43.80	-	-	-
Combustion	4.30	17.21	17.21	1.36	329.31	12.45	190.19	1.18E-03	-	-
Emergency Generators	0.36	0.21	0.20	0.18	11.60	0.33	3.08	-	-	-
Storage Silo 5c	45.05	45.05	45.05	-	-	-	-	0.01	-	0.25
Cold Mill Operations - Pickling Line	659.34	659.34	659.34	-	-	-	-	-	-	-
Reversing Mill	3153.60	3153.60	3153.60	-	-	-	-	-	-	-
Paint Line	0.62	2.48	2.48	0.20	32.64	3895.84	27.41	1.63E-04	-	-
Fuel Dispensing Operation	-	-	-	-	-	1.66	-	-	-	-
Pickling Line 2	0.58	0.58	0.58	-	-	-	-	-	-	-
Reversing Mill 2	500.00	500.00	250.00	-	-	-	-	-	-	-
Burner Combustion 34898	1.03	4.12	4.12	0.32	31.30	2.98	45.50	2.71E-04	0.00	1.41E-04
Hot Band Leveler	3.53	3.53	3.53	-	-	-	-	-	-	-
Storage Silos	109.70	109.70	40.80	-	-	-	-	-	-	-
Steel Dynamics, Inc. - Flat Roll	110175.72	305305.94	4422.19	63.38	446.89	3919.05	309.98	565.90	0.00	0.44
Steel Dynamics, Inc. - IDD	14,592.16	17,067.92	17,066.88	422.15	553.37	1,830.23	670.57	0.66	0.14	-
Total	124,767.88	322,373.86	21,489.07	485.53	1,000.26	5,749.28	980.55	566.56	0.14	0.44

**ATSD Appendix A: Emissions Calculations
PTE Summary**

Company Name: Steel Dynamics, Inc. - Flat Roll Division
Address City IN Zip: 4500 County Road 59, Butler, IN 46721
Significant Permit Modification No.: 033-37274-00043
Plant ID: 033-00043
Reviewer: Thomas Olmstead/Heath Hartley
Date: August, 2016

Potential to Emit After Issuance (ton/yr)										
Unit	PM	PM₁₀	PM_{2.5}	SO₂	NO_x	VOC	CO	Pb	Fluorides	HG
Electric Arc Furnaces & Casters	155.05	447.64	>100	350.40	446.76	227.76	3,504.00	0.83	-	0.10
Ladle Metallurgical Stations	24.05	24.05	245.28		43.80	14.37	175.20	-	-	-
Combustion	4.14	16.54	17.21	1.31	322.21	11.97	182.83	1.14E-03	-	-
Emergency Generators	0.36	0.21	0.20	0.18	11.60	0.33	3.08	-	-	-
Storage Silo 5c	0.45	0.45	45.05	-	-	-	-	0.01	-	0.25
Cold Mill Operations - Pickling Line	6.59	6.59	659.34	-	-	-	-	-	-	-
Reversing Mill	31.54	31.54	3153.60	-	-	-	-	-	-	-
Paint Line	0.62	2.48	2.48	0.20	32.64	38.96	0.27	1.63E-04	-	-
Fuel Dispensing Operation	-	-	-	-	-	1.66	-	-	-	-
Pickling Line 2	0.58	0.58	0.58	-	-	-	-	-	-	-
Reversing Mill 2	5.00	5.00	2.50	-	-	-	-	-	-	-
Burner Combustion 34898	1.03	4.12	4.12	0.32	31.30	2.98	45.50	2.71E-04	0.00	1.41E-04
Hot Band Leveler	0.96	0.96	0.96	-	-	-	-	-	-	-
Storage Silos	1.10	1.10	40.80	-	-	-	-	-	-	-
Steel Dynamics, Inc. - Flat Roll	231.47	541.25	4,172.12	352.41	888.31	298.03	3,910.88	0.84	0.00	0.35
Steel Dynamics, Inc. - IDD	>100	>100	>100	>100	>100	>100	>100	0.29	0.04	-
Total	>100	>100	>100	>100	>100	>100	>100	1.13	0.04	0.35

The "Potential to Emit After Issuance Table" only includes limits if they are federally enforceable in the permit. Otherwise it includes uncontrolled potential emissions.

1. Lead taken into account in Burner Combustion for the new Galvanizing Line 1 New Burners

Total Potential HAPs	(tons/yr)
Iron Dynamics Division	93.54
Flat Roll Division	1484.69
Steel Dynamics, Inc. Total	1578.23

Total Limited HAPs	(tons/yr)
Iron Dynamics Division	
Flat Roll Division	
Steel Dynamics, Inc. Total	<25.00

Limited Single HAP	(tons/yr)
Iron Dynamics Division	
Flat Roll Division	
Steel Dynamics, Inc. Total	<10.00 ea

ATSD Appendix A: Emissions Calculations
Project Summary 37274

Company Name: Steel Dynamics, Inc. - Flat Roll Division
Address City IN Zip: 4500 County Road 59, Butler, IN 46721
Significant Permit Modification No.: 033-37274-00043
Plant ID: 033-00043
Reviewer: Thomas Olmstead/Heath Hartley
Date: August, 2016

Uncontrolled Potential to Emit (ton/yr)											
Unit	PM	PM ₁₀	PM _{2.5}	SO ₂	NO _x	VOC	CO	Lead	Mercury	Highest Single HAP (Naphthalene)	Total HAPs
<i>New Units:</i>											
Pickling Line 2	58.18	58.18	58.18	0	0	0	0	0.00	0.00	0.00	1.40
Reversing Mill 2	500.00	500.00	250.00	0	0	0	0	0.00	0.00	0.00	0.00
Pickling Line Boilers (4 & 5)	0.33	1.33	1.33	0.11	6.25	0.96	14.72	8.76E-05	4.56E-05	1.07E-04	0.02
<i>Modified Units:</i>											
Galvanizing Line 1 (Hot Band)	0.37	1.50	1.50	0.12	13.47	1.08	16.55	9.85E-05	5.12E-05	1.20E-04	0.02
Galvanizing Line 2 (Cold Rolled)	0.32	1.29	1.29	0.10	11.58	0.93	14.23	8.47E-05	4.40E-05	1.03E-04	0.01
Hot Band Leveler*	3.53	3.53	3.53	--	--	--	--	--	--	--	--
Total New Units	558.52	559.52	309.52	0.11	6.25	0.96	14.72	8.76E-05	4.56E-05	0.00	1.42
Increase from Modified Units	4.23	6.32	6.32	0.22	25.04	2.02	30.78	0.00	0.00	0.00	0.03
Total Increase	562.75	565.83	315.83	0.32	31.30	2.98	45.50	2.71E-04	1.41E-04	0.00	1.45

*The Hot Band Leveler is an existing unit that was considered an insignificant activity and not previously included in the permit.

Project Emissions Summary - Limited (ton/yr)											
Unit	PM	PM ₁₀	PM _{2.5}	SO ₂	NO _x	VOC	CO	Lead	Mercury	Highest Single HAP (Naphthalene)	Total HAPs
<i>New Units:</i>											
Pickling Line 2	17.08	2.85	0.58	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.40
Reversing Mill 2	5.00	5.00	2.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pickling Line Boilers (4, 5 & 6)	0.33	1.33	1.33	0.11	6.25	0.96	14.72	8.76E-05	4.56E-05	1.07E-04	0.02
<i>Increase to existing units:</i>											
EAF #1 and EAF #2	0	0	0	0	0	0	0	0	0		
Reversing Mill	0.88	0.88	0.44	0.00	0.00	0.00	0.00	0.00	0.00		
Galvanizing Line 1 (Hot Band)	0.37	1.50	1.50	0.12	13.47	1.08	16.55	9.85E-05	5.12E-05		
Galvanizing Line 2 (Cold Rolled)	0.32	1.29	1.29	0.10	11.58	0.93	14.23	8.47E-05	4.40E-05		
Paint Line	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
Paint Line Combustion Units	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
Hot Band Leveler	0.96	0.96	0.96	--	--	--	--	--	--		
Total New Units	22.41	9.18	4.41	0.11	6.25	0.96	14.72	8.76E-05	4.56E-05	<10	< 25
Sum of ATPA Increases	2.54	4.62	4.19	0.22	25.04	2.02	30.78	1.83E-04	9.53E-05		
Project Emissions Increase	24.95	13.81	8.60	0.32	31.30	2.98	45.50	2.71E-04	1.41E-04		
PSD Significant Level	25	15	10	40	40	40	100	0.6	0.1	NA	NA

Note:

Source-wide single HAPs are limited to <10 ton/yr and < 25 ton/yr for any combination of HAPs.

ATSD Appendix A: Emissions Calculations
Emissions Summary Before Modification

Company Name: Steel Dynamics, Inc. - Flat Roll Division
Address City IN Zip: 4500 County Road 59, Butler, IN 46721
Significant Permit Modification No.: 033-37274-00043
Plant ID: 033-00043
Reviewer: Thomas Olmstead/Heath Hartley
Date: August, 2016

Potential to Emit (ton/yr)										
Unit	PM	PM ₁₀	PM _{2.5}	SO ₂	NO _x	VOC	CO	Pb	Fluorides	HG
Electric Arc Furnaces & Casters	103294.86	298407.38	>100	>100	>100	>100	>100	565.90	-	0.19
Ladle Metallurgical Stations	2402.74	2402.74	245.28	61.32	42.05	5.78	43.80	-	-	-
Combustion	4.30	17.21	17.21	1.36	329.31	12.45	190.19	1.18E-03	-	-
Emergency Generators	0.36	0.21	0.20	0.18	11.60	0.33	3.08	-	-	-
Storage Silo 5c	45.05	45.05	45.05	-	-	-	-	0.01	-	0.25
Cold Mill Operations - Pickling Lin	659.34	659.34	659.34	-	-	-	-	-	-	-
Reversing Mill	3153.60	3153.60	3153.60	-	-	-	-	-	-	-
Paint Line	0.62	2.48	2.48	0.20	32.64	3895.84	27.41	1.63E-04	-	-
Fuel Dispensing Operation	-	-	-	-	-	1.66	-	-	-	-
Steel Dynamics, Inc. - Flat Roll	109560.88	304688.01	4123.16	63.06	415.59	3916.07	264.48	565.90	0.00	0.44
Steel Dynamics, Inc. - IDD	14,592.16	17,067.92	17,066.88	422.15	553.37	1,830.23	670.57	0.66	0.14	-
Total	124,153.04	321,755.93	21,190.04	485.21	968.96	5,746.30	935.05	566.56	0.14	0.44

Potential to Emit After Issuance (ton/yr)										
Unit	PM	PM ₁₀	PM _{2.5}	SO ₂	NO _x	VOC	CO	Pb	Fluorides	HG
Electric Arc Furnaces & Casters	155.05	447.64	>100	350.40	446.76	227.76	3,504.00	0.83	-	0.10
Ladle Metallurgical Stations	24.05	24.05	245.28		43.80	14.37	175.20	-	-	-
Combustion	4.14	16.54	17.21	1.31	322.21	11.97	182.83	1.14E-03	-	-
Emergency Generators	0.36	0.21	0.20	0.18	11.60	0.33	3.08	-	-	-
Storage Silo 5c	0.45	0.45	45.05	-	-	-	-	0.01	-	0.25
Cold Mill Operations - Pickling Lin	6.59	6.59	659.34	-	-	-	-	-	-	-
Reversing Mill	31.54	31.54	31.54	-	-	-	-	-	-	-
Paint Line	0.62	2.48	2.48	0.20	32.64	38.96	0.27	1.63E-04	-	-
Fuel Dispensing Operation	-	-	-	-	-	1.66	-	-	-	-
Steel Dynamics, Inc. - Flat Roll	222.80	529.49	1,001.10	352.08	857.01	295.05	3,865.38	0.84	0.00	0.35
Steel Dynamics, Inc. - IDD	>100	>100	>100	>100	>100	>100	>100	0.29	0.04	-
Total	>100	>100	>100	>100	>100	>100	>100	1.13	0.04	0.35

The "Potential to Emit After Issuance Table" only includes limits if they are federally enforceable in the permit. Otherwise it includes uncontrolled potential emission

Total Potential HAPs	(tons/yr)
Iron Dynamics Division	93.54
Flat Roll Division	1484.69
Steel Dynamics, Inc. Total	1578.23

Total Limited HAPs	(tons/yr)
Iron Dynamics Division	
Flat Roll Division	
Steel Dynamics, Inc. Total	<25.00

Limited Single HAPs	(tons/yr)
Iron Dynamics Division	
Flat Roll Division	
Steel Dynamics, Inc. Total	<10.00 ea

NA - This data was not needed for rule applicability determination

The above tables do not reflect the total source wide emissions. They are only the sum of the units that were calculated for CAM and source wide HAP applicability determinations.

ATSD Appendix A: Emission Calculations
Potential to Emit after Issuance HAPs Emissions Summary

Company Name: Steel Dynamics, Inc. - Flat Roll Division
Address City IN Zip: 4500 County Road 59, Butler, IN 46721
Significant Permit Modification No.: 033-37274-00043
Plant ID: 033-00043
Reviewer: Thomas Olmstead/Heath Hartley
Date: August, 2016

Pollutant	Emission Source									
	EAF (ton/yr)	Combustion (ton/yr)	Insignificant Activity Combustion (ton/yr)	*Cold Mill Operations - Pickle Line (ton/yr)	Existing Surface Coating (ton/yr)	EAF Dust Silo 5c (ton/yr)	**Fuel Dispensing Operation (ton/yr)	Pickle Line 2 (ton/yr)	Burner Comb (ton/yr)	Total Facility (ton/yr)
Acetaldehyde	---	---	9.14E-05	---	---	---	---	---	---	9.1E-05
Acrolein	---	---	2.86E-05	---	---	---	---	---	---	2.9E-05
Benzene	---	4.96E-03	2.81E-03	---	6.85E-04	---	---	---	1.14E-03	0.01
Dichlorobenzene	---	2.84E-03	---	---	3.92E-04	---	---	---	6.50E-04	3.9E-03
Ethyl Benzene	---	---	---	---	48.18	---	---	---	---	48.18
Formaldehyde	---	0.18	2.86E-04	---	0.58	---	---	---	0.04	0.80
Glycol Ethers	---	---	---	---	635.91	---	---	---	---	635.91
Hexane	---	---	---	---	---	---	---	---	---	0.00
Isophorone	---	---	---	---	48.54	---	---	---	---	48.54
Naphthalene	---	1.44E-03	---	---	91.87	---	---	---	3.30E-04	91.87
Toluene	---	8.04E-03	1.02E-03	---	1.11E-03	---	---	---	1.84E-03	0.01
1,2,4-Trimethylbenzene	---	---	---	---	455.77	---	---	---	---	455.77
Xylene	---	---	7.00E-04	---	187.60	---	---	---	---	187.60
Arsenic	1.09E-02	---	---	---	---	3.16E-05	---	---	---	0.01
Beryllium	4.91E-04	---	---	---	---	1.43E-06	---	---	---	4.9E-04
Cadmium	8.76E-03	2.60E-03	---	---	3.59E-04	2.55E-05	---	---	5.96E-04	0.01
Chromium	6.13E-03	3.31E-03	---	---	4.57E-04	1.78E-05	---	---	7.58E-04	0.01
Hydrochloric Acid	---	---	---	1.40	---	---	---	14.00	---	>10
Manganese	5.26E-01	8.98E-04	---	---	1.24E-04	1.53E-03	---	---	2.06E-04	0.53
Nickel	9.64E-03	4.96E-03	---	---	6.85E-04	2.80E-05	---	---	1.14E-03	0.02
PAH/POM	---	---	7.69E-04	---	---	---	---	---	---	7.7E-04
Totals (ton/yr)	0.56	0.21	0.01	1.40	1468.45	0.00	0.01	14.00	0.05	1484.69

*These are limited values. There are no uncontrolled emission calculations for this operation.

**Speciated HAP emission are not available for this operation only total.

ATSD Appendix A: Emission Calculations
Potential to Emit after Issuance HAPs Emissions Summary

Company Name: Steel Dynamics, Inc. - Flat Roll Division
Address City IN Zip: 4500 County Road 59, Butler, IN 46721
Significant Permit Modification No.: 033-37274-00043
Plant ID: 033-00043
Reviewer: Thomas Olmstead/Heath Hartley
Date: August, 2016

Pollutant	Emission Source									
	EAF (ton/yr)	Combustion (ton/yr)	Emergency Generators (ton/yr)	Cold Mill Operations - Pickle Line (ton/yr)	Surface Coating (ton/yr)	EAF Dust Silo 5c (ton/yr)	*Fuel Dispensing Operation (ton/yr)	Pickle Line 2 (ton/yr)	Burner Comb (ton/yr)	Total Facility (ton/yr)***
Acetaldehyde	---	---	9.14E-05	---	---	---	---	---	---	9.14E-05
Acrolein	---	---	2.86E-05	---	---	---	---	---	---	2.86E-05
Benzene	---	4.78E-03	2.81E-03	---	6.85E-04	---	---	---	1.14E-03	0.01
Dichlorobenzene	---	2.73E-03	---	---	3.92E-04	---	---	---	6.50E-04	3.77E-03
Ethyl Benzene**	---	---	---	---	PL _{ETHYLBENZENE}	---	---	---	---	<10.00
Formaldehyde	---	0.17	2.86E-04	---	0.03	---	---	---	4.06E-02	0.24
Glycol Ethers**	---	---	---	---	PL _{GLYCOL ETHERS}	---	---	---	---	<10.00
Hexane	---	---	---	---	---	---	---	---	---	0.00
Isophorone**	---	---	---	---	PL _{ISOPHORONE}	---	---	---	---	<10.00
Naphthalene**	---	1.39E-03	---	---	PL _{NAPHTHALENE}	---	---	---	3.30E-04	<10.00
Toluene	---	7.74E-03	1.02E-03	---	1.11E-03	---	---	---	1.84E-03	0.01
1,2,4-Trimethylbenzene	---	---	---	---	4.56	---	---	---	---	4.56
Xylene	---	---	7.00E-04	---	PL _{XYLENE}	---	---	---	---	<10.00
Arsenic	1.09E-02	---	---	---	---	3.16E-05	---	---	---	0.01
Beryllium	4.91E-04	---	---	---	---	1.43E-06	---	---	---	4.92E-04
Cadmium	8.76E-03	2.50E-03	---	---	3.59E-04	2.55E-05	---	---	5.96E-04	0.01
Chromium	6.13E-03	3.19E-03	---	---	4.57E-04	1.78E-05	---	---	7.58E-04	0.01
Hydrochloric Acid	---	---	---	1.40	---	---	---	1.40	---	2.80
Manganese	5.26E-01	8.65E-04	---	---	1.24E-04	1.53E-03	---	---	2.06E-04	0.53
Nickel	9.64E-03	4.78E-03	---	---	6.85E-04	2.80E-05	---	---	1.14E-03	0.02
PAH/POM	---	---	7.69E-04	---	---	---	---	---	---	7.69E-04
Totals (ton/yr)	0.56	0.20	0.01	Pickle Line 1 _{HAPS}	PL _{HAPS}	1.63E-03	0.01	Pickle Line 2 _{HAPS}	4.73E-02	<25.00
metallic HAPs										
FR _{NAPHTHALENE} CONSTANT	=	1.72E-03	tpy	or	3.92E-04	lb/hr				
FR _{XYLENE} CONSTANT	=	7.00E-04	tpy	or	1.60E-04	lb/hr				
FR _{HAPS} CONSTANT	=	8.27E-01	tpy	or	1.89E-01	lb/hr				
Pickle Line 1 _{HAPS}	=	1.40E+00	tpy	or	3.20E-01	lb/hr				
Pickle Line 2 _{HAPS}	=	1.40E+00	tpy	or	3.20E-01	lb/hr				
FR _{CHROMIUM} CONSTANT	=	9.79E-03	tpy	or	2.24E-03	lb/hr				
FR _{MANGANESE} CONSTANT	=	5.28E-01	tpy	or	1.21E-01	lb/hr				

*Speciated HAP emission are not available for this operation only total.

**Source wide emissions of Ethyl Benzene, Glycol Ethers, Isophorone, Xylene and Naphthalene are each limited to <10.00 ton/yr.

***Total source wide HAP emissions are limited to <25.00 tons/yr

ATSD Appendix A: Emissions Calculations
Natural Gas Combustion (Less than 100 MMBtu/hr)

Company Name: Steel Dynamics, Inc. - Flat Roll Division
Address City IN Zip: 4500 County Road 59, Butler, IN 46721
Significant Permit Modification No.: 033-37274-00043
Plant ID: 033-00043
Reviewer: Thomas Olmstead/Heath Hartley
Date: August, 2016

					Pollutant						
					PM*	PM10*	PM2.5*	SO2	NOx	VOC	CO
Emission Factor in lb/MMCF - Galvanizing Line Burners					1.9	7.6	7.6	0.6	68.34	5.5	84.0
Emission Factor in lb/MMCF - Boilers, oven, oxidizer									35.70		
Emissions Unit	Number of Units	Heat Input Capacity (MMBtu/hr)	Heat Input Capacity Total (MMBtu/hr)	Potential Throughput (MMCF/yr)	Potential Emissions (tons/yr)						
Hot Band Galvanizing Line 1 - Preheat Burners	12	1.86	22.36	192.00	0.18	0.73	0.73	0.06	6.56	0.53	8.06
Hot Band Galvanizing Line 1 - Radiant Burners	32	0.30	9.44	81.07	0.08	0.31	0.31	0.02	2.77	0.22	3.41
Hot Band Galvanizing Line 1 - Cleaning Burners	3	varies	13.60	116.80	0.11	0.44	0.44	0.04	3.99	0.32	4.91
Hot Band Galvanizing Line 1 - Drying	1	0.5	0.5	4.29	0.00	0.02	0.02	0.00	0.15	0.01	0.18
Cold Rolled Galvanizing Line 2 - Preheat Burners	8	1.86	14.90	128.00	0.12	0.49	0.49	0.04	4.37	0.35	5.38
Cold Rolled Galvanizing Line 2 - Radiant Burners	32	0.30	9.44	81.07	0.08	0.31	0.31	0.02	2.77	0.22	3.41
Cold Rolled Galvanizing Line 2 - Cleaning Burners	3	varies	13.60	116.80	0.11	0.44	0.44	0.04	3.99	0.32	4.91
Cold Rolled Galvanizing Line 2 - Drying Burners	3	0.5	1.5	12.88	0.01	0.05	0.05	0.00	0.44	0.04	0.54
Pickling Line Boiler #4	1	20.40	20.40	175.20	0.17	0.67	0.67	0.05	3.13	0.48	7.36
Pickling Line Boiler #5	1	20.40	20.40	175.20	0.17	0.67	0.67	0.05	3.13	0.48	7.36
Total PTE Uncontrolled/Unlimited:					1.03	4.12	4.12	0.32	31.30	2.98	45.50

Notes:

Galvanizing lines, boilers, oven use Low Nox burners

*PM emission factor is filterable PM only. PM10 and PM2.5 emission factors are filterable and condensable PM combined.

ATSD Appendix A: Emissions Calculations
Natural Gas Combustion (Less than 100 MMBtu/hr)

Company Name: Steel Dynamics, Inc. - Flat Roll Division
Address City IN Zip: 4500 County Road 59, Butler, IN 46721
Significant Permit Modification No.: 033-37274-00043
Plant ID: 033-00043
Reviewer: Thomas Olmstead/Heath Hartley
Date: August, 2016

			HAPs - Organics					
			Benzene	Dichlorobe	Formaldeh	Naphthalen	Toluene	Mercury
Emission Factor in lb/MMCF			2.1E-03	1.2E-03	7.5E-02	6.1E-04	3.4E-03	2.6E-04
Emissions Unit	Heat Input Capacity (MMBtu/hr)	Potential Throughput (MMCF/yr)	Potential Emissions (tons/yr)					
Hot Band Galvanizing Line 1 - Preheat Burners	22.36	192.00	2.0E-04	1.2E-04	7.2E-03	5.9E-05	3.3E-04	2.5E-05
Hot Band Galvanizing Line 1 - Radiant Burners	9.44	81.07	8.5E-05	4.9E-05	3.0E-03	2.5E-05	1.4E-04	1.1E-05
Hot Band Galvanizing Line 1 - Cleaning Burners	13.60	116.80	1.2E-04	7.0E-05	4.4E-03	3.6E-05	2.0E-04	1.5E-05
Hot Band Galvanizing Line 1 - Drying	0.50	4.29	4.5E-06	2.6E-06	1.6E-04	1.3E-06	7.3E-06	5.6E-07
Cold Rolled Galvanizing Line 2 - Preheat Burners	14.90	128.00	1.3E-04	7.7E-05	4.8E-03	3.9E-05	2.2E-04	1.7E-05
Cold Rolled Galvanizing Line 2 - Radiant Burners	9.44	81.07	8.5E-05	4.9E-05	3.0E-03	2.5E-05	1.4E-04	1.1E-05
Cold Rolled Galvanizing Line 2 - Cleaning Burners	13.60	116.80	1.2E-04	7.0E-05	4.4E-03	3.6E-05	2.0E-04	1.5E-05
Cold Rolled Galvanizing Line 2 - Drying Burners	1.50	12.88	1.4E-05	7.7E-06	4.8E-04	3.9E-06	2.2E-05	1.7E-06
Pickling Line Boiler #4	20.40	175.20	1.8E-04	1.1E-04	6.6E-03	5.3E-05	3.0E-04	2.3E-05
Pickling Line Boiler #5	20.40	175.20	1.8E-04	1.1E-04	6.6E-03	5.3E-05	3.0E-04	2.3E-05
Total Uncontrolled/Unlimited:			1.1E-03	6.5E-04	4.1E-02	3.3E-04	1.8E-03	1.4E-04

			HAPs - Metals					Total HAPs
			Lead*	Cadmium	Chromium	Manganese	Nickel	
Emission Factor in lb/MMCF			5.0E-04	1.1E-03	1.4E-03	3.8E-04	2.1E-03	(Organics+Metals)
Emissions Unit	Heat Input Capacity (MMBtu/hr)	Potential Throughput (MMCF/yr)	Potential Emissions (tons/yr)					
Hot Band Galvanizing Line 1 - Preheat Burners	22.36	192.00	4.8E-05	1.1E-04	1.3E-04	3.6E-05	2.0E-04	8.5E-03
Hot Band Galvanizing Line 1 - Radiant Burners	9.44	81.07	2.0E-05	4.5E-05	5.7E-05	1.5E-05	8.5E-05	3.6E-03
Hot Band Galvanizing Line 1 - Cleaning Burners	13.60	116.80	2.9E-05	6.4E-05	8.2E-05	2.2E-05	1.2E-04	5.1E-03
Hot Band Galvanizing Line 1 - Drying	0.50	4.29	1.1E-06	2.4E-06	3.0E-06	8.2E-07	4.5E-06	1.9E-04
Cold Rolled Galvanizing Line 2 - Preheat Burners	14.90	128.00	3.2E-05	7.0E-05	9.0E-05	2.4E-05	1.3E-04	5.6E-03
Cold Rolled Galvanizing Line 2 - Radiant Burners	9.44	81.07	2.0E-05	4.5E-05	5.7E-05	1.5E-05	8.5E-05	3.6E-03
Cold Rolled Galvanizing Line 2 - Cleaning Burners	13.60	116.80	2.9E-05	6.4E-05	8.2E-05	2.2E-05	1.2E-04	5.1E-03
Cold Rolled Galvanizing Line 2 - Drying Burners	1.50	12.88	3.2E-06	7.1E-06	9.0E-06	2.4E-06	1.4E-05	5.7E-04
Pickling Line Boiler #4	20.40	175.20	4.4E-05	9.6E-05	1.2E-04	3.3E-05	1.8E-04	7.7E-03
Pickling Line Boiler #5	20.40	175.20	4.4E-05	9.6E-05	1.2E-04	3.3E-05	1.8E-04	7.7E-03
Total Uncontrolled/Unlimited:			2.7E-04	6.0E-04	7.6E-04	2.1E-04	1.1E-03	4.8E-02

The five highest organic and metal HAPs emission factors are provided above.

Additional HAPs emission factors are available in AP-42, Chapter 1.4.

*Lead is regulated under 326 IAC 2-2.

Note: A review of EPA's SPECIATE 4.3 database for HAPs associated with natural gas combustion reveals that n-hexane (the HAP form of hexane) is not emitted as part of natural gas combustion. Therefore, the AP-42 emission factor for hexane does not include any n-hexane and was not included when calculating HAPs from natural gas combustion.

Methodology

All emission factors are based on normal firing.

MMBtu = 1,000,000 Btu

MMCF = 1,000,000 Cubic Feet of Gas

Heating Value of Natural Gas is assumed to be 1020 MMBtu/MMCF

Potential Throughput (MMCF/yr) = Heat Input Capacity (MMBtu/hr) * 8,760 hrs/yr * 1 MMCF/1,020 MMBtu

Emission Factors are from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03 (Supplement D 3/98)

Potential Emission (tons/yr) = Throughput (MMCF/yr) * Emission Factor (lb/MMCF) * (1 ton/2,000 lb)

ATSD Appendix A: Emissions Calculations
Natural Gas Combustion (Less than 100 MMBtu/hr)

Company Name: Steel Dynamics, Inc. - Flat Roll Division
Address City IN Zip: 4500 County Road 59, Butler, IN 46721
Significant Permit Modification No.: 033-37274-00043
Plant ID: 033-00043
Reviewer: Thomas Olmstead/Heath Hartley
Date: August, 2016

PTE from 8 new galv line 1 preheat burners per SPM 033-37274-00043.

					Pollutant						
					PM*	PM10*	PM2.5*	SO2	NOx	VOC	CO
Emission Factor in lb/MMCF - Galvanizing Line Burners					1.9	7.6	7.6	0.6	68.34	5.5	84.0
Emission Factor in lb/MMCF - Boilers, oven, oxidizer									35.70		
Emissions Unit	Number of Units	Heat Input Capacity (MMBtu/hr)	Heat Input Capacity Total (MMBtu/hr)	Potential Throughput (MMCF/yr)	Potential Emissions (tons/yr)						
Hot Band Galvanizing Line 1 - Preheat Burners	8	1.86	14.90	128.00	0.12	0.49	0.49	0.04	4.37	0.35	5.38

Notes:

Galvanizing lines, boilers, oven use Low Nox burners

*PM emission factor is filterable PM only. PM10 and PM2.5 emission factors are filterable and condensable PM combined.

			HAPs - Organics				
			Benzene	Dichlorobe	Formaldehy	Naphthalen	Mercury
Emission Factor in lb/MMCF			2.1E-03	1.2E-03	7.5E-02	6.1E-04	3.4E-03
2.6E-04							
Emissions Unit	Heat Input Capacity (MMBtu/hr)	Potential Throughput (MMCF/yr)	Potential Emissions (tons/yr)				
Hot Band Galvanizing Line 1 - Preheat Burners	14.90	128.00	1.3E-04	7.7E-05	4.8E-03	3.9E-05	2.2E-04
							1.7E-05

			HAPs - Metals					Total HAPs
			Lead*	Cadmium	Chromium	Manganese	Nickel	
Emission Factor in lb/MMCF			5.0E-04	1.1E-03	1.4E-03	3.8E-04	2.1E-03	(Organics+Metals)
Emissions Unit	Heat Input Capacity (MMBtu/hr)	Potential Throughput (MMCF/yr)	Potential Emissions (tons/yr)					
Hot Band Galvanizing Line 1 - Preheat Burners	14.90	128.00	3.2E-05	7.0E-05	9.0E-05	2.4E-05	1.3E-04	5.64E-03

The five highest organic and metal HAPs emission factors are provided above.

Additional HAPs emission factors are available in AP-42, Chapter 1.4.

*Lead is regulated under 326 IAC 2-2.

Note: A review of EPA's SPECIATE 4.3 database for HAPs associated with natural gas combustion reveals that n-hexane (the HAP form of hexane) is not emitted as part of natural gas combustion.

Therefore, the AP-42 emission factor for hexane does not include any n-hexane and was not included when calculating HAPs from natural gas combustion.

Methodology

All emission factors are based on normal firing.

MMBtu = 1,000,000 Btu

MMCF = 1,000,000 Cubic Feet of Gas

Heating Value of Natural Gas is assumed to be 1020 MMBtu/MMCF

Potential Throughput (MMCF/yr) = Heat Input Capacity (MMBtu/hr) * 8,760 hrs/yr * 1 MMCF/1,020 MMBtu

Emission Factors are from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03 (Supplement D 3/98)

Potential Emission (tons/yr) = Throughput (MMCF/yr) * Emission Factor (lb/MMCF) * (1 ton/2,000 lb)

ATSD Appendix A: Emissions Calculations
ATPA Evaluation

Company Name: Steel Dynamics, Inc. - Flat Roll Division
Address City IN Zip: 4500 County Road 59, Butler, IN 46721
Significant Permit Modification No.: 033-37274-00043
Plant ID: 033-00043
Reviewer: Thomas Olmstead/Heath Hartley
Date: August, 2016

Note: SDI has provided the information used within this ATPA evaluation. IDEM, OAG has not reviewed these values and will not be making a determination.
 Note: Within this ATPA evaluation, emission factors are taken directly from their respective sheets within this Appendix A document, unless noted otherwise.

EAF #1 & #2			Pollutant									
			PM	PM10	PM2.5	SO2	NOx	VOC	CO	Pb	Hg	
			0.010	0.041	0.041	0.2	0.51	0.13	2.0	4.84E-04	1.65E-07	
Emission Factor (lb/ton)		Throughput (tons/yr)	Hours of Op/yr	Potential Emissions (tons/yr)								
Baseline (2012-2013)		3,023,453	8256	15.42	62.25	62.25	302.35	770.98	196.52	3023.45	0.73	0.00
Projected Actual		3,302,400	8256	16.84	67.99	67.99	330.24	842.11	214.66	3302.40	0.80	0.00
Could Have Accommodated		376,781	0	1.92	7.76	7.76	37.68	96.08	24.49	376.78	0.09	0.00
Actual to Projected Actual		Total Increase		0	0	0	0	0	0	0	0	0

For PM, PM10 and PM2.5, baseline data is based on the controlled PTE value, which is taken from test data.

		Pollutant								
		PM	PM10	PM2.5	SO2	NO _x	VOC	CO	Pb	Hg
		Emission Factor (lb/ton)	0.063	0.063	0.032	NA	NA	NA	NA	NA
Existing Reversing Mill	Throughput (tons/yr)	Potential Emissions (tons/yr)								
	820227	25.90	25.90	12.95	0.00	0.00	0.00	0.00	0.00	0.00
	Projected	940227	29.69	29.69	14.84	0.00	0.00	0.00	0.00	0.00
	Could Have Accommodated	92283	2.91	2.91	1.46	0.00	0.00	0.00	0.00	0.00
	Actual to Projected Actual	Total Increase	0.88	0.88	0.44	0.00	0.00	0.00	0.00	0.00

Emission factor reported in ISTEPS based on reversing mill operating parameters. Per Permit No. 033-8091-00043, EF (lb/ton) = (0.01 gr/dscf)(83,990 scf/min)(60 min/hr)/(7000 gr/lb)/(114 tons steel/hr) = 0.0632 lb/ton. Engineering estimates of PM/PM₁₀ and PM/PM_{2.5} ratios.

Galvanizing Line 1 Band		Emission Factor (lb/MMcf)	Pollutant								
			PM	PM10	PM2.5	SO2	NO _x	VOC	CO	Pb	Hg
			1.9	7.6	7.6	0.6	68.34	5.5	84.0	5.0E-04	2.60E-04
(Hot)	Throughput (MMcf/yr)	Potential Emissions (tons/yr)									
Baseline (2012-2013)	397.57	0.38	1.51	1.51	0.12	13.58	1.09	16.70	9.94E-05	5.17E-05	
Adjusted baseline*	325.16	0.31	1.24	1.24	0.10	11.11	0.89	13.66	8.13E-05	4.23E-05	
Existing units	325.16	0.31	1.24	1.24	0.10	11.11	0.89	13.66	8.13E-05	4.23E-05	
New units	394.17	0.37	1.50	1.50	0.12	13.47	1.08	16.55	9.85E-05	5.12E-05	
Projected Actual	719.33	0.68	2.73	2.73	0.22	24.58	1.98	30.21	1.80E-04	9.35E-05	
Actual to Projected Actual	Total Increase	0.37	1.50	1.50	0.12	13.47	1.08	16.55	9.85E-05	5.12E-05	

*Baseline actual gas usage has been adjusted by scaling by the ratio of permit listed total burner capacity (45 MMBtu/hr) to the actual total burner capacity (55.02 MMBtu/hr).

Galvanizing Line 2 (Cold Rolled)		Emission Factor (lb/MMcf)	Pollutant								
			PM	PM10	PM2.5	SO2	NO _x	VOC	CO	Pb	Hg
			1.9	7.6	7.6	0.6	68.34	5.5	84.0	5.0E-04	2.60E-04
		Throughput (MMcf/yr)	Potential Emissions (tons/yr)								
Baseline (2012-2013)		329.94	0.31	1.25	1.25	0.10	11.27	0.91	13.86	8.25E-05	4.29E-05
Adjusted baseline*		261.29	0.25	0.99	0.99	0.08	8.93	0.72	10.97	6.53E-05	3.40E-05
existing units		261.29	0.25	0.99	0.99	0.08	8.93	0.72	10.97	6.53E-05	3.40E-05
new units		338.75	0.32	1.29	1.29	0.10	11.58	0.93	14.23	8.47E-05	4.40E-05
Projected Actual		600.05	0.57	2.28	2.28	0.18	20.50	1.65	25.20	1.50E-04	7.80E-05
Actual to Projected Actual		Total Increase	0.32	1.29	1.29	0.10	11.58	0.93	14.23	8.47E-05	4.40E-05

*Baseline actual gas usage has been adjusted by scaling by the ratio of permit listed total burner capacity (55 MMBtu/hr) to the actual total burner capacity (69.45 MMBtu/hr).

Existing Paint Line	Steel Throughput (ton/yr)	Coating Usage (gal/yr)	VOC PTE (ton/yr)
Baseline Actual	234,149.50	948,172.50	1,991.08
Projected Actual*	240,900.00	975,508.19	2,048.48
Could Have Accommodated	6,750.50	27,335.69	57.40
Actual to Projected Actual			0.00

*Permit lists 55,000 lb steel per hour as maximum.

Coating usage per Butler Facility records. VOC usage per ISTEPS. VOC usage includes solvent.

			Pollutant									
			PM	PM10	PM2.5	SO2	NOx	VOC	CO	Pb	Hg	
			1.9	7.6	7.6	0.6	50.00	5.5	84.0	5.0E-04	0.00026	
Existing Paint Line Combustion Units	Emission Factor (lb/MMcf)		Potential Emissions (tons/yr)									
	Steel Throughput	Gas Firing Rate*										
	(ton/yr)	(MMcf/yr)										
	Baseline (2012-2013)	234,149.50	316.93	0.30	1.20	1.20	0.10	7.92	0.87	13.31	7.92E-05	4.12E-05
	Projected Actual	240,900.00	326.07	0.31	1.24	1.24	0.10	8.15	0.90	13.69	8.15E-05	4.24E-05
Could Have Accommodated	6,750.50	9.14	0.01	0.03	0.03	0.00	0.23	0.03	0.38	2.28E-06	1.19E-06	
Actual to Projected Actual			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	

*Projected Actual and Could Have Accommodated gas firing rates have been determined by scaling baseline rate by the ratio of CHA or projected production to baseline steel throughput.

ATSD Appendix A: Emissions Calculations
SDI Butler Flat Roll - Galvanizing Line Burners

Company Name: Steel Dynamics, Inc. - Flat Roll Division
Address City IN Zip: 4500 County Road 59, Butler, IN 46721
Significant Permit Modification No.: 033-37274-00043
Plant ID: 033-00043
Reviewer: Thomas Olmstead/Heath Hartley
Date: August, 2016

Existing			
Emission Unit Description	No. of Units	Heat Input Capacity	
		Per Burner	Total
		(MMBtu/hr)	(MMBtu/hr)
Hot Band Galvanizing Line 1 - Cleaning	0	-	-
Hot Band Galvanizing Line 1 - Drying	1	0.50	0.50
Hot Band Galvanizing Line 1 - Preheat	28	1.86	52.16
Hot Band Galvanizing Line 1 - Radiant	8	0.30	2.36
Hot Band Galvanizing Line 1 - Total	37		55.02
Cold Rolled Galvanizing Line 2 - Cleaning	2	5.30	10.60
Cold Rolled Galvanizing Line 2 - Cleaning	1	3.00	3.00
Cold Rolled Galvanizing Line 2 - Drying	3	0.50	1.50
Cold Rolled Galvanizing Line 2 - Preheat	24	1.86	44.71
Cold Rolled Galvanizing Line 2 - Radiant	32	0.30	9.44
Cold Rolled Galvanizing Line 2 - Total	62		69.25

Replacement			
Emission Unit Description	No. of Units	Heat Input Capacity	
		Per Burner	Total
		(MMBtu/hr)	(MMBtu/hr)
Hot Band Galvanizing Line 1 - Cleaning	0	-	-
Hot Band Galvanizing Line 1 - Drying	1	0.50	0.50
Hot Band Galvanizing Line 1 - Preheat	4	1.86	7.45
Hot Band Galvanizing Line 1 - Radiant	8	0.30	2.36
Hot Band Galvanizing Line 1 - Total	13		10.31
Cold Rolled Galvanizing Line 2 - Cleaning	2	5.30	10.60
Cold Rolled Galvanizing Line 2 - Cleaning	1	3.00	3.00
Cold Rolled Galvanizing Line 2 - Drying	3	0.50	1.50
Cold Rolled Galvanizing Line 2 - Preheat	0	-	-
Cold Rolled Galvanizing Line 2 - Radiant	0	-	-
Cold Rolled Galvanizing Line 2 - Total	6		15.10

New			
Emission Unit Description	No. of Units	Heat Input Capacity	
		Per Burner	Total
		(MMBtu/hr)	(MMBtu/hr)
Hot Band Galvanizing Line 1 - Cleaning	2	5.30	10.60
Hot Band Galvanizing Line 1 - Cleaning	1	3.00	3.00
Hot Band Galvanizing Line 1 - Drying	0	-	-
Hot Band Galvanizing Line 1 - Preheat	8	1.86	14.88
Hot Band Galvanizing Line 1 - Radiant	24	0.30	7.08
Hot Band Galvanizing Line 1 - Total	35		35.56
Cold Rolled Galvanizing Line 2 - Cleaning	0	-	-
Cold Rolled Galvanizing Line 2 - Drying	0	-	-
Cold Rolled Galvanizing Line 2 - Preheat	8	1.86	14.90
Cold Rolled Galvanizing Line 2 - Radiant	32	0.30	9.44
Cold Rolled Galvanizing Line 2 - Total	40		24.34

New Total Including Existing, Replacements, and New			
Emission Unit Description	No. of Units	Heat Input Capacity	
		Per Burner	Total
		(MMBtu/hr)	(MMBtu/hr)
Hot Band Galvanizing Line 1 - Cleaning	2	5.30	10.60
Hot Band Galvanizing Line 1 - Cleaning	1	3.00	3.00
Hot Band Galvanizing Line 1 - Drying	1	0.50	0.50
Hot Band Galvanizing Line 1 - Preheat	36	1.86	67.07
Hot Band Galvanizing Line 1 - Radiant	32	0.30	9.44
Hot Band Galvanizing Line 1 - Total	72		90.61
Cold Rolled Galvanizing Line 2 - Cleaning	2	5.30	10.60
Cold Rolled Galvanizing Line 2 - Cleaning	1	3.00	3.00
Cold Rolled Galvanizing Line 2 - Drying	3	0.50	1.50
Cold Rolled Galvanizing Line 2 - Preheat	32	1.86	59.62
Cold Rolled Galvanizing Line 2 - Radiant	64	0.30	18.88
Cold Rolled Galvanizing Line 2 - Total	102		93.60

ATSD Appendix A: Emissions Calculations
Pickling Line 2, Reversing Mill 2 and Hot Band Leveler

Company Name: Steel Dynamics, Inc. - Flat Roll Division
Address City IN Zip: 4500 County Road 59, Butler, IN 46721
Significant Permit Modification No.: 033-37274-00043
Plant ID: 033-00043
Reviewer: Thomas Olmstead/Heath Hartley
Date: August, 2016

Unit	Flow Rate	PM/PM10/PM2.5 outlet Grain loading	Control Efficiency	Controlled PM/PM10/PM2.5	Uncontrolled PM/PM10/P M2.5	Limited PM	Limited PM	Limited PM10	Limited PM10	Limited PM2.5	Limited PM2.5
	(dscfm)	(gr/dscf)	(%)	(ton/yr)	(ton/yr)	(ton/yr)	(lb/hr)	(ton/yr)	(lb/hr)	(ton/yr)	(lb/hr)
Pickling Line 2	10,332	0.0015	99%	0.58	58.18	17.08	3.90	2.85	0.65	0.58	0.13

Methodology:

Controlled Emissions (ton/yr) = Flow rate (dscfm) x Grain Loading (gr/dscf) x 1 lb/7000 grains x 60 minutes/hr x 8760 hr/yr x 1 ton/2000 lb

Uncontrolled Emissions (ton/yr) = Controlled Emissions (ton/yr) / (1 - Control Efficiency (%))

Unit	HCl Allowable Emission Rate (lb/hr)	HCl Emission Rate (lb/hr)	HCl Emission Rate (tpy)	Emission Factor Basis
Pickling Line 2	0.32	0.32	1.40	Assume to be identical to existing unit

Unit	Oil Usage*	Maximum Capacity	Uncontrolled PM/PM10	Uncontrolled PM2.5**	Control Efficiency	Controlled PM/PM10	Controlled PM2.5	Controlled PM/PM10	Controlled PM2.5
	lb/ton	ton/hr	(ton/yr)	(ton/yr)	(%)	(ton/yr)	(ton/yr)	(lb/hr)	(lb/hr)
Reversing Mill 2	1.0	114.16	500.00	250.00	99%	5.00	2.50	1.14	0.57

Methodology:

*Oil Usage based on mass balance calculations.

**Engineering estimates PM2.5 = 50% of PM.

Uncontrolled Emissions (ton/yr) = Oil usage (lb/ton) x Maximum Capacity (ton/hr) x 8760 hr/yr / 2000 lb/ton.

Controlled Emissions (ton/yr) = Uncontrolled Emissions (ton/yr) x (1 - Control Eff.).

Unit	Emission Factor	Maximum Capacity	Uncontrolled PM/PM10/PM2.5	Uncontrolled PM/PM10/PM2.5	Control Efficiency	Controlled PM/PM10/PM2.5	Controlled PM/PM10/PM2.5	Limited PM/PM10/PM2.5	Limited PM/PM10/PM2.5
	lb/ton	ton/hr	(ton/yr)	(lb/hr)	(%)	(ton/yr)	(lb/hr)	(ton/yr)	(lb/hr)
Hot Band Leveler	0.00504	160	3.53	0.806	99%	0.04	0.008	0.96	0.22

Methodology:

Emission Factor based on baghouse material collected data for the pickle line scale breaker associated with the existing pickling line.

Uncontrolled Emissions (ton/yr) = Emission Factor (lb/ton) x Maximum Capacity (ton/hr) x 8760 hr/yr / 2000 lb/ton.

Controlled Emissions (ton/yr) = Uncontrolled Emissions (ton/yr) x (1 - Control Eff.).

ATSD Appendix A: Emissions Calculations
Baseline Actual Data

Company Name: Steel Dynamics, Inc. - Flat Roll Division
Address City IN Zip: 4500 County Road 59, Butler, IN 46721
Significant Permit Modification No.: 033-37274-00043
Plant ID: 033-00043
Reviewer: Thomas Olmstead/Heath Hartley
Date: August, 2016

Cold Mill Natural Gas - 2012 Summary

Month	Galv 1	Galv 2	Paint
	<i>Volume (mcf)</i>	<i>Volume (mcf)</i>	<i>Volume (mcf)</i>
January	32,581	25,945	27,572
February	33,124	27,196	22,795
March	33,124	27,196	22,795
April	36,447	29,796	29,659
May	34,358	27,294	22,385
June	31,742	24,654	24,409
July	26,636	24,350	23,345
August	39,502	34,101	31,291
September	33,497	29,030	26,656
October	32,768	25,992	25,687
November	35,449	28,498	27,272
December	31,850	26,600	23,261
TOTAL	401,076	330,651	307,128
AVERAGE			307,128

max
31,291

Cold Mill Natural Gas - 2013 Summary

Month	Galv 1	Galv 2	Paint
	<i>Volume (mcf)</i>	<i>Volume (mcf)</i>	<i>Volume (mcf)</i>
January	32,755	33,197	30,809
February	33,097	24,449	26,496
March	35,205	27,618	27,966
April	29,960	20,319	20,131
May	35,071	27,971	27,395
June	36,353	27,233	28,824
July	36,242	29,006	28,138
August	33,996	24,153	27,031
September	37,790	30,937	23,665
October	26,611	29,251	29,208
November	26,835	29,101	29,558
December	30,146	25,994	27,511
TOTAL	394,060	329,230	326,731
AVERAGE			326,731

max
30,809

ATSD Appendix A: Emissions Calculations
Baseline Actual Data

Company Name: Steel Dynamics, Inc. - Flat Roll Division
Address City IN Zip: 4500 County Road 59, Butler, IN 46721
Significant Permit Modification No.: 033-37274-00043
Plant ID: 033-00043
Reviewer: Thomas Olmstead/Heath Hartley
Date: August, 2016

Steel Throughput - 2012 and 2013 Summary

Year	Month	Production (tpm)		
		Reversing Mill	Paint Line	EAF#1 & EAF#2
2012	January	71,309	19,393	273,240
	February	71,892	19,888	207,413
	March	68,971	16,795	241,988
	April	70,374	23,794	271,939
	May	65,944	16,215	253,443
	June	66,668	16,290	211,389
	July	67,596	14,679	253,368
	August	73,723	22,637	255,322
	September	75,694	22,420	192,419
	October	64,860	19,572	233,173
	November	63,798	21,698	270,885
	December	70,991	18,022	261,606
2013	January	76,042	22,159	273,849
	February	62,228	18,838	254,070
	March	66,122	16,711	283,353
	April	55,501	11,615	218,003
	May	70,935	23,414	282,926
	June	71,305	20,433	234,757
	July	71,915	21,432	271,808
	August	58,135	20,138	264,362
	September	73,377	14,317	260,824
	October	74,848	23,191	243,235
	November	71,876	23,723	273,896
	December	56,348	20,925	259,635

Unit	Annualized Baseline (2012- 2013) (tpy)	Max Monthly from Baseline (2012- 2013) (tpm)	Max Monthly Projection (tpy)	CHA (tpy)	SDI Projected Throughputs (tpy)
Reversing Mill	820,227	76,042	912,509	92,283	940,227
Paint	234,150	23,794	285,528	51,379	284,150
EAF#1 & EAF#2	3,023,453	283,353	3,400,234	376,781	3,302,400

ATSD Appendix A: Emissions Calculations
Electric Arc Furnaces (EAF)

Company Name: Steel Dynamics, Inc. - Flat Roll Division
Address City IN Zip: 4500 County Road 59, Butler, IN 46721
Significant Permit Modification No.: 033-37274-00043
Plant ID: 033-00043
Reviewer: Thomas Olmstead/Heath Hartley
Date: August, 2016

			Pollutant							
			SO ₂	NO _x	VOC	CO	Pb	HG	Pb	HG
Limited Emission Factor (lb/ton)			0.2	0.51	0.13	2.0	0.323	1.10E-04	Controlled Emissions (tons/yr)	Controlled Emissions (tons/yr)
Unit	Throughput (tons/hr)	Control Efficiency (%)	Potential Emission (tons/yr)							Limited Emissions (tons/yr)
EAF #1 South	200	99.85%	175.2	0	113.88	1,752.0	282.95	0.10	0.42	
EAF #2 North	200	99.85%	175.2	446.76	113.88	1,752.0	282.95	0.10	0.42	0.10
Total			350.4	446.76	227.76	3,504.0	565.90	0.19	0.85	0.10

Methodology:

Potential Emissions (ton/yr) = Limited Emission Factor (lb/ton) * Throughput (tons/hr) * 8760 (hr/yr) * 1 ton / 2000 lb

Controlled Emissions (tons/yr) = Potential Emissions (ton/yr) * (1 - Control Efficiency (%))

Note: Lead and Mercury are regulated under 326 IAC 2-2 and are not included in the total for HAPs.

Unit	Flow Rate (dscfm)	PM outlet Grain loading (gr/dscf)	PM10 outlet Grain loading (gr/dscf)	Control Efficiency (%)	Uncontrolled PM (ton/yr)	Uncontrolled PM10 (ton/yr)	Controlled PM (ton/yr)	Controlled PM10 (ton/yr)	Limited PM (ton/yr)	Limited PM10 (ton/yr)
EAF #1 South	1,300,000	0.0018	0.0052	99.85%	58,566.86	169,193.14	9.11	41.61	88.038	253.60
EAF #2 North	992,821	0.0018	0.0052	99.85%	44,728.00	129,214.23	8.76	30.53	67.014	194.03
Total					103,294.86	298,407.38	17.87	72.14	155.05	447.64

Methodology:

Controlled Emissions (ton/yr) are based on test data from 7/27/2010

Uncontrolled Emissions (ton/yr) = Flow rate (dscfm) x Grain Loading (gr/dscf) x 1 lb/7000 grains x 60 minutes/hr x 8760 hr/yr x 1 ton/2000 lb / (1 - Control Efficiency (%))

		Pollutant					
		Arsenic	Beryllium	Cadmium	Chromium	Manganese	Nickel
Limited Emission Factor (lb/ton)		6.20E-06	2.80E-07	5.00E-06	3.50E-06	3.00E-04	5.50E-06
Unit	Throughput (tons/hr)	Controlled Potential Emission (tons/yr)					
EAF #1 South	200	5.43E-03	2.45E-04	4.38E-03	3.07E-03	2.63E-01	4.82E-03
EAF #2 North	200	5.43E-03	2.45E-04	4.38E-03	3.07E-03	2.63E-01	4.82E-03
Total		1.09E-02	4.91E-04	8.76E-03	6.13E-03	5.26E-01	9.64E-03

Methodology:

Uncontrolled Potential to Emit cannot be calculated because AP-42 only provides controlled emission factors and does not provide the control efficiency.

Controlled Emissions (tons/yr) = Potential Emissions (ton/yr) * (1 - Control Efficiency (%))

Note: There is an AP-42 emission factor for Fluoride which was not included here because this source does not use Fluorspar which is the source of the Fluoride emissions at other mini-mills.

ATSD Appendix A: Emissions Calculations
Ladle Metallurgical Stations (LMS)

Company Name: Steel Dynamics, Inc. - Flat Roll Division
Address City IN Zip: 4500 County Road 59, Butler, IN 46721
Significant Permit Modification No.: 033-37274-00043
Plant ID: 033-00043
Reviewer: Thomas Olmstead/Heath Hartley
Date: August, 2016

Stack Test Data - Controlled Emissions		
Year	Pollutant	
	PM/PM10	
	(lb/hr)	(ton/yr)
2008		
Run 1	1.24	5.45
Run 2	0.23	1.02
Run 3	0.22	0.98
Average of 3 runs	0.57	2.48

Unit	Flow Rate	PM/PM10 outlet Grain loading	Control Efficiency	Controlled PM/PM10	Uncontrolled PM/PM10	Limited PM/PM10
	(dscfm)	(gr/dscf)	(%)	(ton/yr)	(ton/yr)	(ton/yr)
Ladle Metallurgical Stations (LMS)	200,000	0.0032	99%	24.03	2,402.74	24.05
Total				24.03	2,402.74	24.05

Methodology:

Outlet grain loading based on BACT limit.

PM₁₀ assumed to be the equal to PM.

Controlled Emissions (ton/yr) = Flow rate (dscfm) x Grain Loading (gr/dscf) x 1 lb/7000 grains x 60 minutes/hr x 8760 hr/yr x 1 ton/2000 lb

Uncontrolled Emissions (ton/yr) = Controlled Emissions (ton/yr) / (1 - Control Efficiency (%))

Limited Emissions (ton/yr) = Permit limit (lb/hr) * 8760 (hr/yr) / 2000 (lb/ton)

Ladle Metallurgical Stations (LMS) Continued

		Pollutant				
		PM2.5	SO2	NO _x	VOC	CO
Emission Factor (lb/ton)		0.14	0.035	0.024	0.0033	0.025
Unit	Throughput (tons/hr)	Potential Emission (tons/yr)				
Ladle Metallurgical Station (South)	200	122.64	30.66	21.02	2.89	21.90
Ladle Metallurgical Station (North)	200	122.64	30.66	21.02	2.89	21.90
Total		245.28	61.32	42.05	5.78	43.80

Methodology:

Emission Factors from AP-42 Chapter 12.5.1.

Potential Emissions (ton/yr) = Emission Factor (lb/ton) * Throughput (tons/hr) * 8760 (hr/yr) * 1 ton / 2000 lb

		Pollutant				
		PM2.5	SO2	NO _x	VOC	CO
Limited Emission Factor (lb/ton)		NA	**	0.025	0.0082	0.100
Unit	Throughput (tons/hr)	Potential Emission (tons/yr)				
Ladle Metallurgical Station (Total)	400	--	**	43.80	14.37	175.20
Total		--	**	43.80	14.37	175.20

**Limited SO2 emissions are combined with the EAF limited emissions.

Methodology:

Limited Emission Factors from permit.

Limited Potential Emissions (ton/yr) = Limited Emission Factor (lb/ton) * Throughput (tons/hr) * 8760 (hr/yr) * 1 ton / 2000 lb

ATSD Appendix A: Emissions Calculations
Natural Gas Combustion (Less than 100 MMBtu/hr)

Company Name: Steel Dynamics, Inc. - Flat Roll Division
Address City IN Zip: 4500 County Road 59, Butler, IN 46721
Significant Permit Modification No.: 033-37274-00043
Plant ID: 033-00043
Reviewer: Thomas Olmstead/Heath Hartley
Date: August, 2016

*NO _x Manufacturer	*NO _x PSD Permit Limits		
Guarantee Emission Factors	(lb/MMBtu)		(lb/MMCF)
	0.17	0.1	200
(lb/MMCF)	Tunnel Furnace #1	Tunnel Furnace # 2	Galv 1 - Preheat & Radiant
81			Galv 2- Preheat & Radiant
Pickle Line Boilers			Annealing Furnaces

			Pollutant					
Emission Factor in lb/MMCF			PM**	PM10**	PM2.5**	SO ₂	NO _x	VOC
			1.9	7.6	7.6	0.6	100.0	5.5
							**see below	
Emissions Unit	Heat Input Capacity (MMBtu/hr)	Potential Throughput (MMCF/yr)	Potential Emissions (tons/yr)					
Tunnel Furnace No. 1	117.9	1012.553	0.962	3.848	3.848	0.304	87.788	2.785
Tunnel Furnace No. 2	92	790.118	0.751	3.002	3.002	0.237	40.296	2.173
Ladle Preheaters (5)	50	429.412	0.408	1.632	1.632	0.129	21.471	1.181
Ladle Dryout (2)	20	171.765	0.163	0.653	0.653	0.052	8.588	0.472
Tundish Dryers (3)	4.5	38.647	0.037	0.147	0.147	0.012	1.932	0.106
Tundish Preheaters (2)	18.8	161.459	0.153	0.614	0.614	0.048	8.073	0.444
Hot Band Galvanizing Line (Galv 1)*	44.71	383.997	0.365	1.459	1.459	0.115	38.400	1.056
Cold Rolled Galvanizing Line (Galv 2)*	54.15	465.070	0.442	1.767	1.767	0.140	46.507	1.279
Annealing Furnaces (16)	64	549.647	0.522	2.089	2.089	0.165	54.965	1.512
Pickle Line Boiler No. 1*	20.4	175.200	0.166	0.666	0.666	0.053	7.096	0.482
Pickle Line Boiler No. 2*	20.4	175.200	0.166	0.666	0.666	0.053	7.096	0.482
Pickle Line Boiler No. 3*	20.4	175.200	0.166	0.666	0.666	0.053	7.096	0.482
Total Unlimited			4.30	17.21	17.21	1.36	329.31	12.45
Total Limited***			4.14	16.54	16.54	1.31	322.21	11.97

*Changed to reflect burner capacities after removing 2015 'replacement' burners.

**PM emission factor is filterable PM only. PM10 and PM2.5 emission factors are filterable and condensable PM combined.

*** Total Limited Emissions based on PSD limit that only 2 of the 3 Pickle Line Boilers can be in operation at a time.

ATSD Appendix A: Emissions Calculations
Natural Gas Combustion (Less than 100 MMBtu/hr)

Company Name: Steel Dynamics, Inc. - Flat Roll Division
 Address City IN Zip: 4500 County Road 59, Butler, IN 46721
 Significant Permit Modification No.: 033-37274-00043

Plant ID: 033-00043

Reviewer: Thomas Olmstead/Heath Hartley

Date: August, 2016

			HAPs - Organics				
Emission Factor in lb/MMCF			Benzene	Dichlorobenze	Formaldehyde	Naphthalene	Toluene
			2.1E-03	1.2E-03	7.5E-02	6.1E-04	3.4E-03
Emissions Unit	Heat Input Capacity (MMBtu/hr)	Potential Throughput (MMCF/yr)	Potential Emissions (tons/yr)				
Tunnel Furnace (heating zone)	92	790.118	8.3E-04	4.7E-04	3.0E-02	2.4E-04	1.3E-03
Tunnel Furnace (holding zone)	25.9	222.435	2.3E-04	1.3E-04	8.3E-03	6.8E-05	3.8E-04
Tunnel Furnace	92	790.118	8.3E-04	4.7E-04	3.0E-02	2.4E-04	1.3E-03
Ladle Preheaters (5)	50	429.412	4.5E-04	2.6E-04	1.6E-02	1.3E-04	7.3E-04
Ladle Dryout (2)	20	171.765	1.8E-04	1.0E-04	6.4E-03	5.2E-05	2.9E-04
Tundish Dryers (3)	4.5	38.647	4.1E-05	2.3E-05	1.4E-03	1.2E-05	6.6E-05
Tundish Preheaters (2)	18.8	161.459	1.7E-04	9.7E-05	6.1E-03	4.9E-05	2.7E-04
Hot Band Galvanizing Line (Galv 1)	44.712	383.997	4.0E-04	2.3E-04	1.4E-02	1.2E-04	6.5E-04
Cold Rolled Galvanizing Line (Galv 2)	77.3	663.871	7.0E-04	4.0E-04	2.5E-02	2.0E-04	1.1E-03
Annealing Furnaces (16)	64	549.647	5.8E-04	3.3E-04	2.1E-02	1.7E-04	9.3E-04
Pickle Line Boiler No. 1	20.4	175.200	1.8E-04	1.1E-04	6.6E-03	5.3E-05	3.0E-04
Pickle Line Boiler No. 2	20.4	175.200	1.8E-04	1.1E-04	6.6E-03	5.3E-05	3.0E-04
Pickle Line Boiler No. 3	20.4	175.200	1.8E-04	1.1E-04	6.6E-03	5.3E-05	3.0E-04
Total Unlimited			5.0E-03	2.8E-03	1.8E-01	1.4E-03	8.0E-03
Total Limited			4.8E-03	2.7E-03	1.7E-01	1.4E-03	7.7E-03

			HAPs - Metals					Total HAPs (Organics+Metals)
Emission Factor in lb/MMCF			Lead*	Cadmium	Chromium	Manganese	Nickel	
			5.0E-04	1.1E-03	1.4E-03	3.8E-04	2.1E-03	
Emissions Unit	Heat Input Capacity (MMBtu/hr)	Potential Throughput (MMCF/yr)	Potential Emissions (tons/yr)					
Tunnel Furnace (heating zone)	92	790.118	2.0E-04	4.3E-04	5.5E-04	1.5E-04	8.3E-04	3.4E-02
Tunnel Furnace (holding zone)	25.9	222.435	5.6E-05	1.2E-04	1.6E-04	4.2E-05	2.3E-04	9.7E-03
Tunnel Furnace	92	790.118	2.0E-04	4.3E-04	5.5E-04	1.5E-04	8.3E-04	3.4E-02
Ladle Preheaters (5)	50	429.412	1.1E-04	2.4E-04	3.0E-04	8.2E-05	4.5E-04	1.9E-02
Ladle Dryout (2)	20	171.765	4.3E-05	9.4E-05	1.2E-04	3.3E-05	1.8E-04	7.5E-03
Tundish Dryers (3)	4.5	38.647	9.7E-06	2.1E-05	2.7E-05	7.3E-06	4.1E-05	1.7E-03
Tundish Preheaters (2)	18.8	161.459	4.0E-05	8.9E-05	1.1E-04	3.1E-05	1.7E-04	7.0E-03
Hot Band Galvanizing Line (Galv 1)	44.712	383.997	9.6E-05	2.1E-04	2.7E-04	7.3E-05	4.0E-04	1.7E-02
Cold Rolled Galvanizing Line (Galv 2)	77.3	663.871	1.7E-04	3.7E-04	4.6E-04	1.3E-04	7.0E-04	2.9E-02
Annealing Furnaces (16)	64	549.647	1.4E-04	3.0E-04	3.8E-04	1.0E-04	5.8E-04	2.4E-02
Pickle Line Boiler No. 1	20.4	175.200	4.4E-05	9.6E-05	1.2E-04	3.3E-05	1.8E-04	7.6E-03
Pickle Line Boiler No. 2	20.4	175.200	4.4E-05	9.6E-05	1.2E-04	3.3E-05	1.8E-04	7.6E-03
Pickle Line Boiler No. 3	20.4	175.200	4.4E-05	9.6E-05	1.2E-04	3.3E-05	1.8E-04	7.6E-03
Total Unlimited			1.2E-03	2.6E-03	3.3E-03	9.0E-04	5.0E-03	2.1E-01
Total Limited			1.1E-03	2.5E-03	3.2E-03	8.6E-04	4.8E-03	2.0E-01

The five highest organic and metal HAPs emission factors are provided above.

Additional HAPs emission factors are available in AP-42, Chapter 1.4.

*Lead is regulated under 326 IAC 2-2 and is not included in the total for HAPs.

Note: A review of EPA's SPECIATE 4.3 database for HAPs associated with natural gas combustion reveals that n-hexane (the HAP form of hexane) is not emitted as part of natural gas combustion. Therefore, the AP-42 emission factor for hexane does not include any n-hexane and was not included when calculating HAPs from natural gas combustion.

Methodology

All emission factors are based on normal firing.

MMBtu = 1,000,000 Btu

MMCF = 1,000,000 Cubic Feet of Gas

Heating Value of Natural Gas is assumed to be 1020 MMBtu/MMCF

Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) * 8,760 hrs/yr * 1 MMCF/1,020 MMBtu

Emission Factors are from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03 (Supplement D 3/98)

Potential Emission (tons/yr) = Throughput (MMCF/yr) * Emission Factor (lb/MMCF) * (1 ton/2,000 lb)

ATSD Appendix A: Emissions Calculations
Large Reciprocating Internal Combustion Engines - Diesel Fuel
Output Rating (>600 HP)
Emergency Diesel Generators

Company Name: Steel Dynamics, Inc. - Flat Roll Division
Address City IN Zip: 4500 County Road 59, Butler, IN 46721
Significant Permit Modification No.: 033-37274-00043
Plant ID: 033-00043
Reviewer: Thomas Olmstead/Heath Hartley
Date: August, 2016

A. Emissions calculated based on heat input capacity (MMBtu/hr)

Heat Input Capacity (Kw/hr)	4250.00	750 Kw/hr	CM Watertreat
Heat Input Capacity (MMBtu/hr)	14.5	1500 Kw/hr	Main Watertreat (East)
Maximum Hours Operated per Year	500	1500 Kw/hr	Main Watertreat (West)
Potential Throughput (MMBtu/yr)	7,251	500 Kw/hr	Melt Shop (Door 26)
Sulfur Content (S) of Fuel (% by weight)	0.050	4250 Kw/hr	Total

	Pollutant						
	PM*	PM10*	direct PM2.5*	SO2	NOx	VOC	CO
Emission Factor in lb/MMBtu	0.10	0.0573	0.0556	0.051 (1.01S)	3.2 **see below	0.09	0.85
Potential Emission in tons/yr	0.36	0.21	0.20	0.18	11.60	0.33	3.08

*PM emission factor is from AP-42 Section 3.4, Table 3.4-1. The emission factors for PM10 and PM2.5 are from AP

42 Section 3.4, Table 3.4-2. The PM10 emission factor is the sum of filterable PM10 and condensable particulate.

The PM2.5 emission factor is the sum of filterable particulate less than 3 um and condensable particulate.

**NOx emissions: uncontrolled = 3.2 lb/MMBtu, controlled with ignition timing retard = 1.9 lb/MMBtu

Hazardous Air Pollutants (HAPs)

	Pollutant						
	Benzene	Toluene	Xylene	Formaldehyde	Acetaldehyde	Acrolein	Total PAH HAPs***
Emission Factor in lb/MMBtu	7.76E-04	2.81E-04	1.93E-04	7.89E-05	2.52E-05	7.88E-06	2.12E-04
Potential Emission in tons/yr	2.81E-03	1.02E-03	7.00E-04	2.86E-04	9.14E-05	2.86E-05	7.69E-04

***PAH = Polyaromatic Hydrocarbon (PAHs are considered HAPs, since they are considered Polycyclic Organic Matter)

Potential Emission of Total HAPs (tons/yr)	5.71E-03
---	-----------------

Methodology

1 Kw-hr = 0.003412142 MMBtu/hr

Emission Factors are from AP 42 (Supplement B 10/96) Tables 3.4-1, 3.4-2, 3.4-3, and 3.4-4.

Potential Throughput (MMBtu/yr) = [Heat Input Capacity (MMBtu/hr)] * [Maximum Hours Operated per Year]

Potential Emission (tons/yr) = [Potential Throughput (MMBtu/yr)] * [Emission Factor (lb/MMBtu)] / [2,000 lb/to]

ATSD Appendix A: Emissions Calculations
Coil Mill Operations - Pickling Line

Company Name: Steel Dynamics, Inc. - Flat Roll Division
Address City IN Zip: 4500 County Road 59, Butler, IN 46721
Significant Permit Modification No.: 033-37274-00043
Plant ID: 033-00043
Reviewer: Thomas Olmstead/Heath Hartley
Date: August, 2016

$$Q_{std} = \frac{Q_a P_s (17.64)(1 - B_{wo})}{T_s + 460}$$

Where: Q_{std} = volumetric flow rate at dry, standard conditions

Q_a = Absolute stack gas pressure (29.12 in Hg)

P_s = Stack gas moisture, % (12)

B_{wo} = Average absolute stack gas temperature (12°C°F)

17.64 = conversion factor (530°R / 30.04 in Hg)

$$Q_{std} = \frac{(17,630 \text{ ft}^3/\text{min})(29.12)(17.64)(1-0.09)}{(113 + 460)} = 14,382.32 \text{ dscfm}$$

Unit	Flow Rate	PM/PM10/PM2.5 outlet Grain loading	Control Efficiency	Controlled PM/PM10/PM2.5	Uncontrolled PM/PM10/PM2.5
	(dscfm)	(gr/dscf)	(%)	(ton/yr)	(ton/yr)
Pickling Line	14,382	0.01	99%	5.40	539.95
Pickling Line Scale Breaker	10,600	0.003	99%	1.19	119.39
Total				6.59	659.34

HCL: From vendor, the emission rate is 0.04 g/sec. This is equivalent to 0.32 lb/hr and 1.4 tpy. Stack tests have shown compliance with these guarantees.

Methodology:

Outlet grain loading based on BACT limit.

PM₁₀ and PM_{2.5} assumed to be the equal to PM.

Control efficiency from application Form Q-1 for CP 003-2625-00043.

Controlled Emissions (ton/yr) = Flow rate (dscfm) x Grain Loading (gr/dscf) x 1 lb/7000 grains x 60 minutes/hr x 8760 hr/yr x 1 ton/2000 lb

Uncontrolled Emissions (ton/yr) = Controlled Emissions (ton/yr) / (1 - Control Efficiency (%))

ATSD Appendix A: Emissions Calculations
Reversing Mill

Company Name: Steel Dynamics, Inc. - Flat Roll Division
Address City IN Zip: 4500 County Road 59, Butler, IN 46721
Significant Permit Modification No.: 033-37274-00043
Plant ID: 033-00043
Reviewer: Thomas Olmstead/Heath Hartley
Date: August, 2016

Unit	Flow Rate	PM/PM10/PM2.5 outlet Grain loading	Control Efficiency	Controlled PM/PM10/PM2.5	Uncontrolled PM/PM10/PM2.5	Limited PM/PM10
	(dscfm)	(gr/dscf)	(%)	(ton/yr)	(ton/yr)	(ton/yr)
Reversing Mill	84,000	0.01	99%	31.54	3,153.60	31.54
Total				31.54	3,153.60	31.54

Methodology:

Outlet grain loading based on BACT limit.

PM₁₀ and PM_{2.5} assumed to be the equal to PM.

Control efficiency from application Form Q-1 for CP 003-2625-00043.

Controlled Emissions (ton/yr) = Flow rate (dscfm) x Grain Loading (gr/dscf) x 1 lb/7000 grains x 60 minutes/hr x 8760 hr/yr x 1 ton/2000 lb

Uncontrolled Emissions (ton/yr) = Controlled Emissions (ton/yr) / (1 - Control Efficiency (%))

Limited Emissions (ton/yr) = Permit limit (lb/hr) * 8760 (hr/yr) / 2000 (lb/ton)

ATSD Appendix A: Emissions Calculations
2-side, 2-coat coil coating line

Company Name: Steel Dynamics, Inc. - Flat Roll Division
Address City IN Zip: 4500 County Road 59, Butler, IN 46721
Significant Permit Modification No.: 033-37274-00043

Plant ID: 033-00043

Reviewer: Thomas Olmstead/Heath Hartley

Date: August, 2016

2-side, 2-coat coil coating line

Potential to Emit before Control

Material	Gallons per year	Pounds VOC per gallon of coating	Potential VOC pounds per hour	Potential VOC pounds per day	Potential VOC tons per year
Primer	637523	3.71	270.00	6480.03	1182.61
Poly-White	739922	3.55	299.85	7196.50	1313.36
Poly-Color	369961	3.63	153.31	3679.34	671.48
SMP-White	221977	3.89	98.57	2365.73	431.75
SMP-Color	73992	3.82	32.27	774.38	141.32
Kynar-White	44395	3.99	20.22	485.30	88.57
Kynar-Color	29597	4.39	14.83	355.97	64.97

Potential to Emit VOC emissions before control

3894.05 tons per year

Control efficiency of the thermal oxidizer =

99%

Potential to Emit after Control

Material	Gallons per year	Pounds VOC per gallon of coating	Potential VOC pounds per hour	Potential VOC pounds per day	Potential VOC tons per year
Primer	637523	3.71	2.70	64.80	11.83
Poly-White	739922	3.55	3.00	71.97	13.13
Poly-Color	369961	3.63	1.53	36.79	6.71
SMP-White	221977	3.89	0.99	23.66	4.32
SMP-Color	73992	3.82	0.32	7.74	1.41
Kynar-White	44395	3.99	0.20	4.85	0.89
Kynar-Color	29597	4.39	0.15	3.56	0.65

Potential to Emit VOC emissions after control

38.94 tons per year

Pounds of VOC per gallon of Solids = Pounds of VOC per Gallon coating (lb/gal)/[1-(Pounds of VOC per Gallon coating (lb/gal)/7.36 (density of VOC)]

Potential VOC Pounds per Hour = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr)

Potential VOC Pounds per Day = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr) * (24 hr/day)

Potential VOC Tons per Year = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr) * (8760 hr/yr) * (1 ton/2000 lbs)

Material		Density (Lb/Gal)	Gallons of Material (gal/year)	Weight % Xylene	Weight % Trimethylbenzene	Weight % Ethylbenzene	Weight % Naphthalene	Weight % Isophorone	Weight % Glycol Ethers	Weight % Formaldehyde	Xylene Emissions (ton/yr)	1,2,4- Trimethylbenzene Emissions (ton/yr)	Ethylbenzene Emissions (ton/yr)	Naphthalene Emissions (ton/yr)	Isophorone Emissions (ton/yr)	Glycol Ethers Emissions (ton/yr)	Formaldehyde Emissions (ton/yr)
Primer	45Y54	11.44	637,523	4.20%	3.40%	1.00%	1.20%	0.00%	5.70%	0.00%	153.16	123.99	36.47	43.76	0.00	207.86	0.00
Finishing	Poly-White	11.51	739,922	0.00%	6.29%	0.00%	0.00%	0.00%	5.44%	0.00%	0.00	267.84	0.00	0.00	0.00	231.65	0.00
Finishing	Poly-Color	9.35	369,961	0.00%	0.00%	0.30%	2.20%	0.00%	0.00%	0.00%	0.00	0.00	5.19	38.05	0.00	0.00	0.00
Finishing	SMP-White	10.42	221,977	1.03%	4.74%	0.14%	0.00%	0.00%	13.51%	0.00%	11.91	54.82	1.62	0.00	0.00	156.24	0.00
Finishing	SMP-Color	9.48	73,992	1.10%	2.60%	0.30%	2.00%	0.00%	1.90%	0.00%	3.86	9.12	1.05	7.01	0.00	6.66	0.00
Finishing	Kynar-White	11.51	44,395	6.44%	0.00%	1.51%	0.00%	19.00%	4.50%	0.00%	16.45	0.00	3.86	0.00	48.54	11.50	0.00
Finishing	Kynar-Color	9.35	29,597	1.60%	0.00%	0.00%	2.20%	0.00%	15.90%	0.40%	2.21	0.00	0.00	3.04	0.00	22.00	0.55

Total HAPs

Total Potential Emissions	187.60	455.77	48.18	91.87	48.54	635.91	0.55	1468.42
Controlled Emissions	1.88	4.56	0.48	0.92	0.49	6.36	0.01	14.68
Limited Emissions								0.00

METHODOLOGY

Control Efficiency = 99% per SSM No. 033-15836-00043

HAPS emission rate (tons/yr) = Density (lb/gal) * Gal of Material (gal/unit) * Maximum (unit/hr) * Weight % HAP * 8760 hrs/yr * 1 ton/2000 lbs

ATSD Appendix A: Emissions Calculations
2-side, 2-coat coil coating line

Company Name: Steel Dynamics, Inc. - Flat Roll Division
Address City IN Zip: 4500 County Road 59, Butler, IN 46721
Significant Permit Modification No.: 033-37274-00043
Plant ID: 033-00043
Reviewer: Thomas Olmstead/Heath Hartley
Date: August, 2016

Combustion 2-side, 2-coat coil coating

Heat Input Capacity

Potential Throughput

MMBtu/hr

MMCF/yr

76.0

652.7

Pollutant							
Emission Factor in lb/MMCF	PM* 1.9	PM10* 7.6	PM2.5* 7.6	SO2 0.6	NOx 100.0	VOC 5.5	CO 84.0
Potential Emission in tons/yr	0.6	2.5	2.5	0.2	32.6	1.8	27.4
Controlled Emission in tons/yr (Control Efficiency)	0.6	2.5	2.5	0.2	32.6	0.02 (99%)	0.27 (99%)

*PM emission factor is filterable PM only. PM10 and PM2.5 emission factor is filterable and condensable PM10 combined.

Curing ovens and thermal oxidizer are controlled for VOC and CO.

Methodology

All emission factors are based on normal firing.

MMBtu = 1,000,000 Btu

MMCF = 1,000,000 Cubic Feet of Gas

Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,020 MMBtu

Emission Factors are from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03 (SUPPLEMENT D 3/98)

Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton

HAPs - Organics					
Emission Factor in lb/MMcf	Benzene 2.1E-03	Dichlorobenz 1.2E-03	Formaldehy 7.5E-02	Naphthalen 6.1E-04	Toluene 3.4E-03
Potential Emission in tons/yr	6.853E-04	3.916E-04	2.448E-02	1.991E-04	1.110E-03

HAPs - Metals					
Emission Factor in lb/MMcf	Lead* 5.0E-04	Cadmium 1.1E-03	Chromium 1.4E-03	Manganese 3.8E-04	Nickel 2.1E-03
Potential Emission in tons/yr	1.632E-04	3.590E-04	4.569E-04	1.240E-04	6.853E-04

Total 0.03

The five highest organic and metal HAPs emission factors are provided above.

Additional HAPs emission factors are available in AP-42, Chapter 1.4.

*Lead is regulated under 326 IAC 2-2 and is not included in the total for HAPs.

Note: A review of EPA's SPECIATE 4.3 database for HAPs associated with natural gas combustion reveals that n-hexane (the HAP form of hexane) is not emitted as part of natural gas combustion. Therefore, the AP-42 emission factor for hexane does not include any n-hexane and was not included when calculating HAPs from natural gas combustion.

Emission Unit	Capacity (MMBtu/hr)
Two (2) curing ovens	16
Burner	60
Total	76

ATSD Appendix A: Emissions Calculations
2-side, 2-coat coil coating line

Company Name: Steel Dynamics, Inc. - Flat Roll Division
Address City IN Zip: 4500 County Road 59, Butler, IN 46721
Significant Permit Modification No.: 033-37274-00043
Plant ID: 033-00043
Reviewer: Thomas Olmstead/Heath Hartley
Date: August, 2016

Summary	Pollutant						
	PM*	PM10*	PM2.5*	SO2	NOx	VOC	CO
Uncontrolled							
Potential Emission in tons/yr	0.62	2.48	2.48	0.20	32.64	3895.84	27.41

*PM emission factor is filterable PM only. PM10 and PM2.5 emission factor is filterable and condensable PM10 combined.

Summary	Pollutant						
	PM*	PM10*	PM2.5*	SO2	NOx	VOC	CO
Limited							
Potential Emission in tons/yr	0.62	2.48	2.48	0.20	32.64	38.96	0.27

*PM emission factor is filterable PM only. PM10 and PM2.5 emission factor is filterable and condensable PM10 combined.

HAPs	Uncontrolled	Controlled	Limited
	tpy	tpy	tpy
1,2,4-Trimethylbenzene	455.77	4.56	4.56
ethylbenzene	48.18	0.48	0.48
Xylene	187.60	1.88	1.88
Naphthalene	91.87	0.92	0.92
Glycol Ethers	635.91	6.36	6.36
Formaldehyde	0.58	0.03	0.03
Isophorone	48.54	0.49	0.49
Benzene	6.853E-04	6.85E-04	6.85E-04
Dichlorobenzene	3.916E-04	3.92E-04	3.92E-04
Toluene	1.110E-03	1.11E-03	1.11E-03
Lead	1.632E-04	1.63E-04	1.63E-04
Cadmium	3.590E-04	3.59E-04	3.59E-04
Chromium	4.569E-04	4.57E-04	4.57E-04
Manganese	1.240E-04	1.24E-04	1.24E-04
Nickel	6.853E-04	6.85E-04	6.85E-04
Total	1468.45	14.71	14.60

ATSD Appendix A: Emissions Calculations
Storage Silos

Company Name: Steel Dynamics, Inc. - Flat Roll Division
Address City IN Zip: 4500 County Road 59, Butler, IN 46721
Significant Permit Modification No.: 033-37274-00043
Plant ID: 033-00043
Reviewer: Thomas Olmstead/Heath Hartley
Date: August, 2016

Unit	Flow Rate	PM/PM10/PM2.5 outlet Grain loading	Control Efficiency	Controlled PM/PM10/PM2.5	Uncontrolled PM/PM10/PM2.5
	(dscfm)	(gr/dscf)	(%)	(ton/yr)	(ton/yr)
EAFF Dust Silo 5c	1,200	0.01	99%	0.45	45.05
Total				0.45	45.05

Methodology:

Outlet grain loading based on BACT limit.

PM₁₀ and PM_{2.5} assumed to be the equal to PM.

Controlled Emissions (ton/yr) = Flow rate (dscfm) x Grain Loading (gr/dscf) x 1 lb/7000 grains x 60 minutes/hr x 8760 hr/yr x 1 ton/2000 lb

Uncontrolled Emissions (ton/yr) = Controlled Emissions (ton/yr) / (1 - Control Efficiency (%))

HAP Emissions (tpy)				
Pollutant	EF (HAP Fraction of Total PM)	EF (lb/ton)	Uncontrolled	Controlled
Lead*	--	0.323	0.01	7.28E-05
Arsenic	7.01E-05	--	3.16E-03	3.16E-05
Beryllium	3.16E-06	--	1.43E-04	1.43E-06
Cadmium	5.65E-05	--	2.55E-03	2.55E-05
Chromium	3.95E-05	--	1.78E-03	1.78E-05
Manganese	3.39E-03	--	0.15	1.53E-03
Mercury*	5.60E-03	--	0.25	2.52E-03
Nickel	6.21E-05	--	2.80E-03	2.80E-05
			0.16	1.63E-03

NA = not available

Methodology

Uncontrolled Emissions (tpy) = EF (%) x PTE of PM/PM10/PM2.5 Before Control (tpy) or EF (lb/ton) x PTE of PM/PM10/PM2.5 Before Control (tpy)

Controlled Emissions (tpy) = EF (%) x PTE of PM/PM10/PM2.5 After Control (tpy) or EF (lb/ton) x PTE of PM/PM10/PM2.5 After Control (tpy)

EF (% of Total PM) = HAP Emission (tpy) / PM Emissions (tpy)

*Lead and Mercury are regulated under 326 IAC 2-2 and are not included in the total for HAPs.

**ATSD Appendix A: Emissions Calculations
Fuel Dispensing Operations**

Company Name: Steel Dynamics, Inc. - Flat Roll Division
Address City IN Zip: 4500 County Road 59, Butler, IN 46721
Significant Permit Modification No.: 033-37274-00043
Plant ID: 033-00043
Reviewer: Thomas Olmstead/Heath Hartley
Date: August, 2016

1.0 Fuel Dispensing Operations PTE

> This worksheet documents potential VOC and HAP emissions from storage tanks and vehicle refueling associated with the gasoline dispensing operation at the Butler Facility.

1.1 Storage Tanks Uncontrolled PTE

> Potential VOC and HAP emissions are quantified using EPA's TANKS v4.0.9d program for calculating loading and standing losses from storage tanks.

EUID	Emission Unit Description	Volume (gal)	Max Annual Throughput (gal/yr)	TANKS v4.0.9d VOC Emissions (lb/yr)	TANKS v4.0.9d VOC Emissions (tpy)	TANKS v4.0.9d HAP Emissions (lb/yr)	TANKS v4.0.9d HAP Emissions (tpy)
T2	Gasoline Storage Tank #2	2,000	50,000	986.50	0.49	12.04	0.01
T1	Diesel Storage Tank #1	2,000	33,333	0.74	3.70E-04	0.06	3.00E-05
T3	Gasoline Storage Tank #3	5,000	33,333	1,361.52	6.81E-01	0.10	5.00E-05
T4	Diesel Storage Tank #4	5,000	33,333	1.13	5.65E-04	0.10	5.00E-05

1.2 Vehicle Refueling Uncontrolled PTE

> Potential VOC emissions from vehicle refueling with gasoline are based on AP-42, Table 5.2-7 emission factors for evaporative emissions from gasoline service station operations.

> Potential VOC emissions from vehicle refueling with diesel are based on the AP-42, Table 5.2-1 saturation factor for calculating petroleum liquid loading losses (splash loading assumed) and the following equation from AP-42, Section 5.2:
Loading Loss (lb/Mgal) = 12.46 * Saturation Factor * True Vapor Pressure at 60°F (psia) * Vapor Molecular Weight (lb/lb-mole) / Bulk Liquid Temperature (°R)

> Diesel true vapor pressure at 60°F and vapor molecular weight per AP-42, Table 7.1-2.

> Bulk liquid temperature of diesel assumed. Temperature in °R calculated based on the following equation:

Bulk Liquid Temperature (°R) = Bulk Liquid Temperature (°F) + 460

> Annual HAP emissions for vehicle gasoline and diesel refueling estimated based on ratio of HAP to VOC emissions for Gasoline Tank #1 and Diesel Tank #1, respectively.

EUID	Emission Unit Description	Max Annual Throughput (Mgal/yr)	VOC Displacement Losses (lb/Mgal)	VOC Spillage Losses (lb/Mgal)	Annual VOC Emissions (tpy)	Annual HAP Emissions (tpy)	Basis
F2, F3	Gasoline Dispensing	83	11.00	0.70	0.49	5.95E-03	AP-42, Table 5.2-7, Vehicle Refueling Operations (Stage II)

EUID	Emission Unit Description	Max Annual Throughput (Mgal/yr)	Saturation Factor	True Vapor Pressure at 60°F (psia)	Vapor Molecular Weight (lb/lb-mole)	Bulk Liquid Temperature (°F)	Bulk Liquid Temperature (°R)	Loading Loss (lb/Mgal)	Annual VOC Emissions (tpy)	Annual HAP Emissions (tpy)
F1, F4	Diesel Dispensing	67	1.45	0.0065	130	60	520	0.03	9.79E-04	7.93E-05

1.3 Project PTE Summary

> Total VOC and HAP emissions from the project are summarized below.

EUID	Emission Unit Description	Annual VOC Emissions (tpy)	Annual HAP Emissions (tpy)
T2	Gasoline Storage Tank #2	0.49	0.01
T1	Diesel Storage Tank #1	3.70E-04	3.00E-05
T3	Diesel Storage Tank #3	6.81E-01	5.00E-05
T4	Diesel Storage Tank #4	5.65E-04	5.00E-05
F2, F3	Gasoline Dispensing	0.49	5.95E-03
F1, F4	Diesel Dispensing	9.79E-04	7.93E-05
Total PTE (tpy):		1.66	0.01

Appendix A: Emissions Calculations Storage Silos

Company Name: Steel Dynamics, Inc. - Flat Roll Division
Address City IN Zip: 4500 County Road 59, Butler, IN 46721
Significant Permit Modification No.: 033-37274-00043
Plant ID: 033-00043
Reviewer: Thomas Olmstead/Heath Hartley
Date: August, 2016

Control ID	Process Description	Outlet Grain Loading (gr/dscf)	Maximum Air Flow Rate (scfm)	PTE of PM after Control (lbs/hr)	PTE of PM after Control (tons/yr)	PTE of PM10 after Control (lbs/hr)	PTE of PM10 after Control (tons/yr)	PTE of PM2.5 after Control (lbs/hr)	PTE of PM2.5 after Control (tons/yr)	Control Efficiency (%)	PTE of PM/PM10 before Control (tons/yr)	PTE of PM2.5 before Control (tons/yr)
Bin Vent 33	(3) lime / carbon silos	0.01	974	0.08	0.37	0.08	0.37	0.03	0.14	99%	36.57	13.60
Bin Vent 34	(3) lime / carbon silos	0.01	974	0.08	0.37	0.08	0.37	0.03	0.14	99%	36.57	13.60
Bin Vent 35	Cold Mill Water Treatment Silo	0.01	974	0.08	0.37	0.08	0.37	0.03	0.14	99%	36.57	13.60
Total:				1.10		1.10		0.41			109.70	40.80

Note:
PM2.5 emissions calculated based on EPA's PM calculator SCC 30501613.

Methodology:

PTE of PM/PM10 after Control (lbs/hr) = Grain Loading (gr/dscf) x Max. Air Flow Rate (scfm) x 60 mins/hr x 1/7000 lb/gr
PTE of PM/PM10 after Control (tons/yr) = Grain Loading (gr/dscf) x Max. Air Flow Rate (scfm) x 60 mins/hr x 1/7000 lb/gr x 8760 hr/yr x 1 ton/2000 lbs
PTE of PM2.5 after Control (lbs/hr) = PTE of PM/PM10 after Control (lbs/hr) x (27/72.6)
PTE of PM2.5 after Control (tons/yr) = PTE of PM2.5 after Control (lbs/hr) x 8760 hr/yr x 1 ton/2000 lbs
PTE of PM/PM10 before Control (tons/yr) = PTE of PM/PM10 after Control (tons/yr) / (1-Control Efficiency)
PTE of PM2.5 before Control (tons/yr) = PTE of PM2.5 after Control (tons/yr) / (1-Control Efficiency)



Indiana Department of Environmental Management

We Protect Hoosiers and Our Environment.

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Michael R. Pence
Governor

Carol S. Comer
Commissioner

Notice of Public Comment

September 22, 2016
Steel Dynamics, Inc. – Flat Roll Division
033-37274-00043

Dear Concerned Citizen(s):

You have been identified as someone who could potentially be affected by this proposed air permit. The Indiana Department of Environmental Management, in our ongoing efforts to better communicate with concerned citizens, invites your comment on the draft permit.

Enclosed is a Notice of Public Comment, which has been placed in the Legal Advertising section of your local newspaper. The application and supporting documentation for this proposed permit have been placed at the library indicated in the Notice. These documents more fully describe the project, the applicable air pollution control requirements and how the applicant will comply with these requirements.

If you would like to comment on this draft permit, please contact the person named in the enclosed Public Notice. Thank you for your interest in the Indiana's Air Permitting Program.

Please Note: *If you feel you have received this Notice in error, or would like to be removed from the Air Permits mailing list, please contact Patricia Pear with the Air Permits Administration Section at 1-800-451-6027, ext. 3-6875 or via e-mail at PPEAR@IDEM.IN.GOV. If you have recently moved and this Notice has been forwarded to you, please notify us of your new address and if you wish to remain on the mailing list. Mail that is returned to IDEM by the Post Office with a forwarding address in a different county will be removed from our list unless otherwise requested.*

Enclosure
PN AAA Cover.dot 2/17/2016



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Michael R. Pence
Governor

Carol S. Comer
Commissioner

AFFECTED STATE NOTIFICATION OF PUBLIC COMMENT PERIOD DRAFT INDIANA AIR PERMIT

September 22, 2016

A 30-day public comment period has been initiated for:

Permit Number: 033-37274-00043
Applicant Name: Steel Dynamics, Inc. – Flat Roll Division
Location: Butler, DeKalb County, Indiana

The public notice, draft permit and technical support documents can be accessed via the **IDEM Air Permits Online** site at:

<http://www.in.gov/ai/appfiles/idem-caats/>

Questions or comments on this draft permit should be directed to the person identified in the public notice by telephone or in writing to:

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

Questions or comments regarding this email notification or access to this information from the EPA Internet site can be directed to Chris Hammack at chammack@idem.IN.gov or (317) 233-2414.

Affected States Notification.dot 2/17/2016



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Michael R. Pence
Governor

Carol S. Comer
Commissioner

September 22, 2016

Ms. Nicole Wiley
Steel Dynamics, Inc. – Flat Roll Division
4500 CR 59
Butler, IN 46721

Re: Public Notice
Steel Dynamics, Inc. – Flat Roll Division
Permit Level: Significant Permit Modification
Permit Number: 033-37274-00043

Dear Ms. Wiley:

Enclosed is a copy of your draft Significant Permit Modification, Technical Support Document, emission calculations, and the Public Notice which will be printed in your local newspaper.

The Office of Air Quality (OAQ) has prepared two versions of the Public Notice Document. The abbreviated version will be published in the newspaper, and the more detailed version will be made available on the IDEM's website and provided to interested parties. Both versions are included for your reference. The OAQ has requested that the Auburn Evening Star in Auburn, Indiana publish the abbreviated version of the public notice no later than September 27, 2016. You will not be responsible for collecting any comments, nor are you responsible for having the notice published in the newspaper.

OAQ has submitted the draft permit package to the Butler Public Library, 340 South Broadway Street in Butler, Indiana. As a reminder, you are obligated by 326 IAC 2-1.1-6(c) to place a copy of the complete permit application at this library no later than ten (10) days after submittal of the application or additional information to our department. We highly recommend that even if you have already placed these materials at the library, that you confirm with the library that these materials are available for review and request that the library keep the materials available for review during the entire permitting process.

Please review the enclosed documents carefully. This is your opportunity to comment on the draft permit and notify the OAQ of any corrections that are needed before the final decision. Questions or comments about the enclosed documents should be directed to Heath Hartley, Indiana Department of Environmental Management, Office of Air Quality, 100 N. Senate Avenue, Indianapolis, Indiana, 46204 or call (800) 451-6027, and ask for extension 2-8217 or dial (317) 232-8217.

Sincerely,

Greg Hotopp

Greg Hotopp
Permits Branch
Office of Air Quality

Enclosures
PN Applicant Cover letter 2/17/2016



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Michael R. Pence
Governor

Carol S. Comer
Commissioner

September 22, 2016

To: Butler Public Library

From: Matthew Stuckey, Branch Chief
Permits Branch
Office of Air Quality

Subject: **Important Information to Display Regarding a Public Notice for an Air Permit**

Applicant Name: Steel Dynamics, Inc. – Flat Roll Division
Permit Number: 033-37274-00043

Enclosed is a copy of important information to make available to the public. This proposed project is regarding a source that may have the potential to significantly impact air quality. Librarians are encouraged to educate the public to make them aware of the availability of this information. The following information is enclosed for public reference at your library:

- Notice of a 30-day Period for Public Comment
- Request to publish the Notice of 30-day Period for Public Comment
- Draft Permit and Technical Support Document

You will not be responsible for collecting any comments from the citizens. Please refer all questions and request for the copies of any pertinent information to the person named below.

Members of your community could be very concerned in how these projects might affect them and their families. **Please make this information readily available until you receive a copy of the final package.**

If you have any questions concerning this public review process, please contact Joanne Smiddie-Brush, OAQ Permits Administration Section at 1-800-451-6027, extension 3-0185. Questions pertaining to the permit itself should be directed to the contact listed on the notice.

Enclosures
PN Library.dot 2/16/2016



Indiana Department of Environmental Management

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Michael R. Pence
Governor

Carol S. Comer
Commissioner

ATTENTION: PUBLIC NOTICES, LEGAL ADVERTISING

September 22, 2016

Auburn Evening Star
118 West Ninth Street
Auburn, IN 46706

Enclosed, please find one Indiana Department of Environmental Management Notice of Public Comment for Steel Dynamics, Inc. – Flat Roll Division, DeKalb County, Indiana.

Since our agency must comply with requirements which call for a Notice of Public Comment, we request that you print this notice one time, no later than September 27, 2016.

Please send a notarized form, clippings showing the date of publication, and the billing to the Indiana Department of Environmental Management, Accounting, Room N1345, 100 North Senate Avenue, Indianapolis, Indiana, 46204.

To ensure proper payment, please reference account # 100174737.

We are required by the Auditor's Office to request that you place the Federal ID Number on all claims. If you have any conflicts, questions, or problems with the publishing of this notice or if you do not receive complete public notice information for this notice, please call Greg Hotopp at 800-451-6027 and ask for extension 4-3493 or dial 317-234-3493.

Sincerely,

Greg Hotopp

Greg Hotopp
Permit Branch
Office of Air Quality

Permit Level: Significant Permit Modification
Permit Number: 033-37274-00043

Enclosure

PN Newspaper.dot 2/17/2016

Mail Code 61-53

IDEM Staff	GHOTOPP 9/22/2016 SDI- Steel Dynamics, Inc 033-37274-00043 Draft			AFFIX STAMP HERE IF USED AS CERTIFICATE OF MAILING
Name and address of Sender		Indiana Department of Environmental Management Office of Air Quality – Permits Branch 100 N. Senate Indianapolis, IN 46204	Type of Mail: CERTIFICATE OF MAILING ONLY	

Line	Article Number	Name, Address, Street and Post Office Address	Postage	Handling Charges	Act. Value (If Registered)	Insured Value	Due Send if COD	R.R. Fee	S.D. Fee	S.H. Fee	Rest. Del. Fee	Remarks
1		Nicole Wiley SDI- Steel Dynamics, Inc 4500 CR 59 Butler IN 46721 (Source CAATS)										
2		Jordan Breiner Operations Mgr SDI- Steel Dynamics, Inc 4500 CR 59 Butler IN 46721 (RO CAATS)										
3		Mr. Steve Roosz NISWMD 2320 W 800 S, P.O. Box 370 Ashley IN 46705 (Affected Party)										
4		Ms. Diane Leroy 303 N. Jackson St. Auburn IN 46706 (Affected Party)										
5		Mr. Barry Fordanish R#3 1480 CR 66 Auburn IN 46706 (Affected Party)										
6		DeKalb County Health Department 220 E 7th St #110 Auburn IN 46706 (Health Department)										
7		Butler Public Library 340 South Broadway Street Butler IN 46721-1308 (Library)										
8		Daniel & Sandy Trimmer 15021 Yellow River Road Columbia City IN 46725 (Affected Party)										
9		Brown & Sons Fuel Co. P.O. Box 665 Kendallville IN 46755 (Affected Party)										
10		Mr. Marty K. McCurdy 2550 County Road 27 Waterloo IN 46793 (Affected Party)										
11		Butler City Council and Mayors Office 215 S. Broadway St. Butler IN 46721 (Local Official)										
12		Ms. Camille Sears 502 W Lomita Ave Ojai CA 93023 (Affected Party)										
13		Tom Keller 4461 C.R. 59 Butler IN 46721 (Affected Party)										
14		DeKalb County Building Department 301 S Union St Auburn IN 46706 (Local Official)										
15												

Total number of pieces Listed by Sender 14	Total number of Pieces Received at Post Office	Postmaster, Per (Name of Receiving employee)	The full declaration of value is required on all domestic and international registered mail. The maximum indemnity payable for the reconstruction of nonnegotiable documents under Express Mail document reconstructing insurance is \$50,000 per piece subject to a limit of \$50, 000 per occurrence. The maximum indemnity payable on Express mil merchandise insurance is \$500. The maximum indemnity payable is \$25,000 for registered mail, sent with optional postal insurance. See Domestic Mail Manual R900, S913, and S921 for limitations of coverage on inured and COD mail. See International Mail Manual for limitations o coverage on international mail. Special handling charges apply only to Standard Mail (A) and Standard Mail (B) parcels.
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