



INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

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Michael R. Pence
Governor

Thomas W. Easterly
Commissioner

TO: Interested Parties / Applicant

DATE: August 7, 2013

RE: Progress Rail Services Corporation / 089-33322-00381

FROM: Matthew Stuckey, Branch Chief
Permits Branch
Office of Air Quality

Notice of Decision – Approval

Please be advised that on behalf of the Commissioner of the Department of Environmental Management, I have issued a decision regarding the enclosed matter. Pursuant to 326 IAC 2, this approval was effective immediately upon submittal of the application.

If you wish to challenge this decision, IC 4-21.5-3-7 requires that you file a petition for administrative review. This petition may include a request for stay of effectiveness and must be submitted to the Office of Environmental Adjudication, 100 North Senate Avenue, Government Center North, Suite N 501E, Indianapolis, IN 46204, **within eighteen (18) calendar days from the mailing of this notice**. The filing of a petition for administrative review is complete on the earliest of the following dates that apply to the filing:

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

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

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

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

Enclosures
FNPER-AM.dot 6/13/2013



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Aaron Lewis
Progress Rail Services Corporation
175 West Chicago Avenue
East Chicago, IN 46312

August 7, 2013

Re: 089-33322-00381
Administrative Amendment to
F089-27298-00381

Dear Mr. Lewis:

Progress Rail Services Corporation was issued a Federally Enforceable State Operating Permit (FESOP) Renewal No. F089-27298-00381 on October 7, 2009 for a stationary locomotive axle and wheel set finishing source located at 175 W Chicago Avenue, East Chicago, IN 46312. A letter requesting an administrative amendment was received on June 19, 2013. Pursuant to the provisions of 326 IAC 2-7-11(a), the permit is hereby administratively amended as described in the attached Technical Support Document.

All other conditions of the permit shall remain unchanged and in effect. Please find attached the entire Part 70 Operating Permit as modified.

This decision is subject to the Indiana Administrative Orders and Procedures Act - IC 4-21.5-3-5. If you have any questions on this matter, please contact Adam Wheat of my staff, at 317-233-8397 or 1-800-451-6027, and ask for extension 3-8397.

Sincerely,

Nathan C. Bell, Section Chief
Permits Branch
Office of Air Quality

Attachments: Updated Permit, Technical Support Document and Appendix A

NB/AW

cc: File - Lake County
Lake County Health Department
U.S. EPA, Region V
Compliance and Enforcement Branch



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Federally Enforceable State Operating Permit Renewal OFFICE OF AIR QUALITY

**Progress Rail Services Corporation
175 West Chicago Avenue
East Chicago, Indiana 46312**

(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. 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 2-8 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.

Indiana statutes from IC 13 and rules from 326 IAC, quoted 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 FESOP under 326 IAC 2-8.

Operation Permit No. F089-27298-00381	
Original Signed by: Alfred C. Dumauval, Ph. D., Section Chief Permits Branch Office of Air Quality	Issuance Date: October 7, 2009 Expiration Date: October 7, 2019

First Minor Permit Revision No. 089-29591-00381, Issued on November 23, 2011
First Administrative Amendment No. 089-32670-00381, Issued on June 19, 2013

Second Administrative Amendment No. 089-33322-00381	
Issued by:  Nathan Bell, Section Chief Permits Branch Office of Air Quality	Issuance Date: August 7, 2013 Expiration Date: October 7, 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 through A.3 is descriptive information and does not constitute enforceable conditions. However, the Permittee should be aware that a physical change or a change in the method of operation that may render this descriptive information obsolete or inaccurate may trigger requirements for the Permittee to obtain additional permits or seek modification of this permit pursuant to 326 IAC 2, or change other applicable requirements presented in the permit application.

A.1 General Information [326 IAC 2-8-3(b)]

The Permittee owns and operates a stationary locomotive axle and wheel set finishing source.

Source Address:	175 West Chicago Avenue, East Chicago, Indiana 46312
General Source Phone Number:	219-397-5326
SIC Code:	4789 (Transportation Services, Not Elsewhere Classified)
County Location:	Lake
Source Location Status:	Nonattainment for 8-hour ozone standard Attainment for all other criteria pollutants
Source Status:	Federally Enforceable State Operating Permit Program Minor Source, under PSD and Emission Offset Rules Minor Source, Section 112 of the Clean Air Act Not 1 of 28 Source Categories

A.2 Emission Units and Pollution Control Equipment Summary [326 IAC 2-8-3(c)(3)]

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

- (a) One (1) surface coating spray booth, identified as 1213, constructed in 1988, utilizing an HVLP spray application system, coating a maximum of 12 metal axles per hour, using dry filters for particulate matter control, and exhausting to one (1) stack, identified as S-21.
- (b) One (1) surface coating spray booth, identified as 1221, constructed in 1988, utilizing an HVLP spray application system, coating a maximum of 3 steel housings per hour or 24 motor exhaust ducts per day, using dry filters for particulate matter control, and exhausting to one (1) stack, identified as S-20.
- (c) One (1) surface coating spray booth, identified as BPB-1, constructed in 1988, utilizing a HVLP spray application system, coating a maximum of 3 steel housings per hour or 24 motor exhaust ducts per day, using dry filters for particulate matter control, and exhausting to one (1) stack, identified as S-53.
- (d) One (1) surface coating spray booth, identified as TD102, constructed in 2010, utilizing a HVLP spray application system, coating either steel housings at a maximum rate of 6 per hour, motor exhaust ducts at a maximum rate of 24 per day, or motor housing interiors at a maximum rate of 12 per day, using dry filters for particulate matter control, and exhausting to one (1) dual fan side stack, identified as S-56.
- (e) One (1) dip tank with cover, identified as AXDT, constructed in 2000, coating a maximum of 12 metal axles per hour.

- (f) One (1) cold cleaner degreasing operation, approved for construction in 2011, identified as SML-1 (exhausting inside) which uses an aqueous cleaning solvent. This unit is not equipped with a solvent heater.
- (g) One (1) degreaser for truck service/repair operation, identified as 865A, exhausting indoors, constructed in 2007, using an organic cleaning solvent, with a maximum capacity of 260 gallons.
- (h) Cold cleaner degreasing operations using heated organic or non-organic cleaners, consisting of three (3) units constructed in 1988, identified as 1218 (stack ID # S-22), 1219 (stack ID # S-19), and A378 (stack ID # S-52).
- (i) One (1) conveyORIZED degreasing operation using a heated organic or non-organic alkaline solution, identified as 765, constructed in 1988 (stack ID # S-3).
- (j) Cold cleaner degreasing operations using heated organic or non-organic cleaners, including an alkaline solution or hot water, consisting of one(1) unit constructed in 1988, identified as 982 (stack ID # S-10) .
- (k) One (1) heated organic or non-organic solvent degreasing unit, identified as A574, approved for construction in 2013, equipped with two (2) natural gas fired heaters, with heat input capacities each of 0.8 MMBtu/hr, the heaters will exhaust to stacks S-59 and S-65, respectively, and A574 will exhaust to stack S-60.
- (l) One (1) aqueous washer using heated organic or non-organic cleaners, identified as FAW, constructed in 2007, and exhausting inside the building.
- (m) One (1) mechanical blasting unit, identified as 617, constructed in 2006, with a maximum capacity of 8000 pounds of steel parts per hour, utilizing one (1) baghouse for particulate matter control, and exhausting to stack S-9.
- (n) One (1) rotoblaster for truck service/repair operation, identified as Unit 1255, constructed in 2007, controlled by a baghouse, and exhausting to stack S-44.
- (o) One (1) grit blast booth for truck service/repair operation, identified as TOBB, constructed in 2007, with a maximum blast rate of 750 pounds of black beauty or aluminum white oxide per hour, controlled by a baghouse, and exhausting to stack S-45.

A.3 Insignificant Activities [326 IAC 2-7-1(21)][326 IAC 2-8-3(c)(3)(I)]

This stationary source also includes the following insignificant activities:

- (a) One (1) natural gas-fired drying oven, identified as A425, with a maximum heat input rate of 2.3 million British thermal units per hour (MMBtu/hr) and exhausting to four (4) stacks identified as S-37, S-38, S-39 and S40. [326 IAC 2-8][326 IAC 8-7]
- (b) One (1) natural gas-fired carrier furnace, identified as CF-1, with a maximum heat input rate of 0.1 MMBtu/hr.
- (c) One (1) natural gas-fired carrier furnace, identified as CF-2, with a maximum heat input rate of 0.125 MMBtu/hr.
- (d) One (1) natural gas-fired Dayton furnace, identified as DF-1, with a maximum heat input rate of 0.125 MMBtu/hr.
- (e) One (1) natural gas-fired Lennox furnace, identified as LF-1, with a maximum heat input rate of 0.14 MMBtu/hr.

- (f) Sixty seven (67) natural gas-fired radiant space heaters, identified as RH-1 through RH-67, each with a maximum heat input rate of 0.135 MMBtu/hr.
- (g) Five (5) natural gas-fired Trane furnaces, identified as TF-1 through TF-5, each with a maximum heat input rate of 0.25 MMBtu/hr.
- (h) One (1) natural gas-fired Trane furnace, identified as TF-6, with a maximum heat input rate of 0.3 MMBtu/hr.
- (i) Three (3) natural gas-fired water heaters, identified as WH-1, WH-2 and WH-3, each with a maximum heat input rate of 0.2 MMBtu/hr.
- (j) One (1) natural gas-fired solution heater, identified as Solution Heater 765, with a maximum heat input rate of 1.75 MMBtu/hr, and exhausting to one (1) stack, identified as S-2.
- (k) One (1) natural gas-fired solution heater, identified as Solution Heater 982, with a maximum heat input rate of 1.6 MMBtu/hr, and exhausting to one (1) stack, identified as S-11 and S-67.
- (l) One (1) natural gas-fired solution heater, identified as Solution Heater 1218, with a maximum heat input rate of 0.8 MMBtu/hr, and exhausting to one (1) stack, identified as S-23.
- (m) Paved and unpaved roads and parking lots with public access.
- (n) The following equipment related to manufacturing activities not resulting in the emission of HAPs: brazing equipment, cutting torches, soldering equipment, welding equipment. [326 IAC 6.8-1-2]
 - (1) Six (6) welding stations utilized as follows:
 - (A) Metal inert gas welding tasks conducted at five (5) stations, with a maximum hourly consumption of 1.0 pound of wire per station;
 - (B) Stick welding tasks conducted at three (3) stations, with a maximum hourly consumption of 0.75 pounds of electrode per station; and
 - (C) Tungsten inert gas welding tasks conducted at one (1) station, with a maximum hourly consumption of 1.5 sticks per hour.
 - (2) One (1) flame cutting station utilizing oxyacetylene, with a maximum cutting rate of 18 inches per minute.
 - (3) One (1) air arc steel cutting station, with an electrode consumption rate of 0.26 pounds per hour.
 - (4) Three (3) MIG welding stations, constructed in 2007, each with a maximum consumption of 0.075 pounds of wire per hour.
 - (5) One (1) air arc cutting operation, identified as AAB, constructed in 2007, exhausting through stacks S-32 and S-33.
- (o) One (1) Vacuum Process Impregnation (VPI) system, constructed in 2007, including a vacuum chamber with a capacity of six (6) locomotive motor armatures, an insulating

varnish storage tank with a capacity of 700 gallons, and a wipe cleaning operation which uses a maximum of 0.38 gallon of solvent per day, processing up to twelve (12) armatures per day, and exhausting through stacks S-57 and S-58. [326 IAC 2-8][326 IAC 8-7][326 IAC 8-2-9]

- (p) Other emission units, not regulated by a NESHAP, with PM₁₀, NO_x, and SO₂ emissions less than five (5) pounds per hour or twenty-five (25) pounds per day, CO emissions less than twenty-five (25) pounds per day, VOC emissions less than three (3) pounds per hour or fifteen (15) pounds per day, lead emissions less than six-tenths (0.6) tons per year or three and twenty-nine hundredths (3.29) pounds per day, and emitting greater than one (1) pound per day but less than five (5) pounds per day or one (1) ton per year of a single HAP, or emitting greater than one (1) pound per day but less than twelve and five tenths (12.5) pounds per day or two and five tenths (2.5) tons per year of any combination of HAPs:
- (1) One (1) paint booth, identified as TOPB, constructed in 2007, controlled by a dry filter, and exhausting to stack S-43. [326 IAC 2-8][326 IAC 8-7][326 IAC 6.8-1-2][326 IAC 8-2-9]
 - (2) One (1) organic or non-organic alkaline aqueous washer, identified as Unit 1239, constructed in 2007, equipped with two (2) 0.8 MMBtu/hr natural gas-fired heaters, and exhausting to stacks S-46 and S-47. [326 IAC 2-8][326 IAC 8-7]
 - (3) One (1) alkaline organic or non-organic aqueous washer, identified as Unit 1292, constructed in 2007, equipped with one (1) 2.5 MMBtu/hr natural gas-fired heater, and exhausting to stacks S-48 and S-49. [326 IAC 2-8][326 IAC 8-7]
 - (4) One (1) cleaning unit used for the removal of oxidation from copper components, constructed in 2008, identified as A047.
- (q) One (1) dip tank with cover, identified as AXDT2, constructed in 2008, coating a maximum of 12 metal axles per hour. [326 IAC 2-8][326 IAC 8-2-9]
- (r) One (1) Traction Motor Drying oven, identified as TMDO, constructed in 2008, electrically heated and venting to stack S-55 to vent water vapor. [326 IAC 2-8][326 IAC 8-7]

A.4 Trivial Activities [326 IAC 2-7-1(42)]

This stationary source also includes the following trivial activities:

- (a) One (1) portable recirculating blaster unit, identified as QUIK-BLAST, approved for construction in 2011, with a maximum blast rate of 137.1 pounds per hour, controlled by a 2-stage filter, exhausting indoors. [326 IAC 6.8-1-2]
- (b) One (1) Wheel Qualification Station, identified as WQS-1, constructed in 1999, using hand operated tools for removal of debris from wheel sets at a maximum capacity of 3 wheel sets per hour, with particulate emissions controlled by a hooded fan, and exhausting to stack S-61. [326 IAC 6.8-1-2]
- (c) One (1) Wheel Qualification Station, identified as WQS-2, constructed in 2003, using hand operated tools for removal of debris from wheel sets at a maximum capacity of 3 wheel sets per hour, with particulate emissions controlled by a hooded fan, and exhausting to stack S-62. [326 IAC 6.8-1-2]
- (d) One (1) Farrell Turning Lathe, identified as FTL-1, constructed in 2003, for re-profiling/machining of wheel sets at a maximum capacity of 3 wheel sets per hour, with

particulate emissions controlled by two (2) hooded fans, and exhausting to stacks S-63 and S-64. [326 IAC 6.8-1-2]

- (e) One (1) Hegenscheidt lathe, identified as Heg-1, constructed in 1999, for re-profiling/machining of wheel sets at a maximum capacity of 3.5 wheel sets per hour, with particulate emissions controlled by a fabric filter, and exhausting to stack S-61. [326 IAC 6.8-1-2]
- (f) One (1) booth, identified as TD101, constructed in 2007, using hand operated tools for removal of debris from parts at a maximum capacity of 3 parts per hour, using dry filters for particulate matter control, and exhausting to stack S-54. [326 IAC 6.8-1-2]
- (g) One (1) propane tank, identified as Propane, with a maximum tank capacity of 1,000 gallons.

A.5 FESOP Applicability [326 IAC 2-8-2]

This stationary source, otherwise required to have a Part 70 permit as described in 326 IAC 2-7-2(a), has applied to the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ) to renew a Federally Enforceable State Operating Permit (FESOP).

SECTION B

GENERAL CONDITIONS

B.1 Definitions [326 IAC 2-8-1]

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 2-8-4(2)][326 IAC 2-1.1-9.5][IC 13-15-3-6(a)]

- (a) This permit, F089-27298-00381, is issued for a fixed term of ten (10) 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, 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 2-8-6][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 2-8-4(4)]

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 2-8-4(5)(D)]

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

B.7 Duty to Provide Information [326 IAC 2-8-4(5)(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 2-8-3(d)][326 IAC 2-8-4(3)(C)(i)][326 IAC 2-8-5(1)]

- (a) A certification required by this permit meets the requirements of 326 IAC 2-8-5(a)(1) if:
- (1) it contains a certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1), 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) An "authorized individual" is defined at 326 IAC 2-1.1-1(1).

B.9 Annual Compliance Certification [326 IAC 2-8-5(a)(1)]

- (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 April 15 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

- (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 2-8-4(3); and
 - (5) Such other facts, as specified in Sections D of this permit, as IDEM, OAQ may require to determine the compliance status of the source.

The submittal by the Permittee does require a certification that meets the requirements of 326 IAC 2-8-5(a)(1) by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

B.10 Compliance Order Issuance [326 IAC 2-8-5(b)]

IDEM, OAQ may issue a compliance order to this Permittee upon discovery that this permit is in nonconformance with an applicable requirement. The order may require immediate compliance or contain a schedule for expeditious compliance with the applicable requirement.

B.11 Preventive Maintenance Plan [326 IAC 1-6-3][326 IAC 2-8-4(9)][326 IAC 2-8-5(a)(1)]

(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 2-8-5(a)(1) by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

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 2-8-5(a)(1) by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

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

B.12 Emergency Provisions [326 IAC 2-8-12]

- (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 provided in 326 IAC 2-8-12.
- (b) An emergency, as defined in 326 IAC 2-7-1(12), constitutes an affirmative defense to an action brought for noncompliance with a health-based or 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 Northwest Regional Office within four (4) daytime business hours after the beginning of the emergency, or after the emergency was discovered or reasonably should have been discovered;

Telephone Number: 1-800-451-6027 (ask for Office of Air Quality, Compliance and Enforcement Branch), or
Telephone Number: 317-233-0178 (ask for Office of Air Quality, Compliance and Enforcement Branch)
Facsimile Number: 317-233-6865
Northwest Regional Office phone: (219) 757-0265; fax: (219) 757-0267.

- (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 2-8-4(3)(C)(ii) and must contain the following:

- (A) A description of the emergency;

- (B) Any steps taken to mitigate the emissions; and
- (C) Corrective actions taken.

The notification which shall be submitted by the Permittee does not require a certification that meets the requirements of 326 IAC 2-8-5(a)(1) by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

- (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 2-8-3(c)(6) 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 2-8 and any other applicable rules.
- (g) Operations may continue during an emergency only if the following conditions are met:
 - (1) 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.
 - (2) If an emergency situation causes a deviation from a health-based limit, the Permittee may not continue to operate the affected emissions facilities unless:
 - (A) The Permittee immediately takes all reasonable steps to correct the emergency situation and to minimize emissions; and
 - (B) Continued operation of the facilities is necessary to prevent imminent injury to persons, severe damage to equipment, substantial loss of capital investment, or loss of product or raw material of substantial economic value.

Any operations shall continue no longer than the minimum time required to prevent the situations identified in (g)(2)(B) of this condition.

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

- (a) All terms and conditions of permits established prior to F089-27298-00381 and issued pursuant to permitting programs approved into the state implementation plan have been either:
 - (1) incorporated as originally stated,

(2) revised, or

(3) deleted.

(b) All previous registrations and permits are superseded by this permit.

B.14 Termination of Right to Operate [326 IAC 2-8-9][326 IAC 2-8-3(h)]

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 2-8-3(h) and 326 IAC 2-8-9.

**B.15 Permit Modification, Reopening, Revocation and Reissuance, or Termination
[326 IAC 2-8-4(5)(C)][326 IAC 2-8-7(a)][326 IAC 2-8-8]**

(a) This permit may be modified, reopened, revoked and reissued, or terminated for cause. The filing of a request by the Permittee for a Federally Enforceable State Operating Permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any condition of this permit. [326 IAC 2-8-4(5)(C)] The notification by the Permittee does require a certification that meets the requirements of 326 IAC 2-8-5(a)(1) by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

(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 2-8-8(a)]

(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 2-8-8(b)]

(d) The reopening and revision of this permit, under 326 IAC 2-8-8(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 2-8-8(c)]

B.16 Permit Renewal [326 IAC 2-8-3(h)]

(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 2-8-3. Such information shall be included in the application for each emission unit at this source, except those emission units included on the trivial or insignificant activities list contained in 326 IAC 2-7-1(21) and 326 IAC 2-7-1(40). The renewal application does require a certification that meets the requirements of 326 IAC 2-8-5(a)(1) by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

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.
- (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 2-8 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 2-8-3(g), in writing by IDEM, OAQ any additional information identified as being needed to process the application.

B.17 Permit Amendment or Revision [326 IAC 2-8-10][326 IAC 2-8-11.1]

- (a) Permit amendments and revisions are governed by the requirements of 326 IAC 2-8-10 or 326 IAC 2-8-11.1 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 2-8-5(a)(1) by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (c) The Permittee may implement administrative amendment changes addressed in the request for an administrative amendment immediately upon submittal of the request. [326 IAC 2-8-10(b)(3)]

B.18 Operational Flexibility [326 IAC 2-8-15][326 IAC 2-8-11.1]

- (a) The Permittee may make any change or changes at the source that are described in 326 IAC 2-8-15(b) through (d) 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 approval required by 326 IAC 2-8-11.1 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 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 2-8-15(b) through (d). 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 2-8-15(b)(2), (c)(1), and (d).

- (b) Emission Trades [326 IAC 2-8-15(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 2-8-15(c).
- (c) Alternative Operating Scenarios [326 IAC 2-8-15(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 2-8-4(7). No prior notification of IDEM, OAQ, or U.S. EPA is required.
- (d) 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.19 Source Modification Requirement [326 IAC 2-8-11.1]

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

B.20 Inspection and Entry [326 IAC 2-8-5(a)(2)][IC 13-14-2-2][IC 13-17-3-2][IC 13-30-3-1]

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

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

- (b) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, have access to and copy, at reasonable times, any records that must be kept under 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, at reasonable times, 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, at reasonable times, substances or parameters for the purpose of assuring compliance with this permit or applicable requirements; and
- (e) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, utilize any photographic, recording, testing, monitoring, or other equipment for the purpose of assuring compliance with this permit or applicable requirements.

B.21 Transfer of Ownership or Operational Control [326 IAC 2-8-10]

- (a) The Permittee must comply with the requirements of 326 IAC 2-8-10 whenever the Permittee seeks to change the ownership or operational control of the source and no other change in the permit is necessary.
- (b) Any application requesting a change in the ownership or operational control of the source shall contain a written agreement containing a specific date for transfer of permit responsibility, coverage and liability between the current and new Permittee. The application shall be submitted to:

Indiana Department of Environmental Management
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 2-8-5(a)(1) by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (c) The Permittee may implement administrative amendment changes addressed in the request for an administrative amendment immediately upon submittal of the request. [326 IAC 2-8-10(b)(3)]

B.22 Annual Fee Payment [326 IAC 2-7-19][326 IAC 2-8-4(6)][326 IAC 2-8-16][326 IAC 2-1.1-7]

- (a) The Permittee shall pay annual fees to IDEM, OAQ no later than 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) 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.23 Credible Evidence [326 IAC 2-8-4(3)][326 IAC 2-8-5][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.

SECTION C

SOURCE OPERATION CONDITIONS

Entire Source

Emission Limitations and Standards [326 IAC 2-8-4(1)]

C.1 Overall Source Limit [326 IAC 2-8]

The purpose of this permit is to limit this source's potential to emit to less than major source levels for the purpose of Section 502(a) of the Clean Air Act.

- (a) Pursuant to 326 IAC 2-8:
- (1) The potential to emit volatile organic compounds (VOCs) from the entire source shall be limited to less than twenty-five (25) tons per twelve (12) consecutive month period;
 - (2) The potential to emit any regulated pollutant from the entire source, except particulate matter (PM), volatile organic compounds (VOCs), and greenhouse gases (GHGs), shall be limited to less than one hundred (100) tons per twelve (12) consecutive month period;
 - (3) The potential to emit any individual hazardous air pollutant (HAP) from the entire source shall be limited to less than ten (10) tons per twelve (12) consecutive month period; and
 - (4) The potential to emit any combination of HAPs from the entire source shall be limited to less than twenty-five (25) tons per twelve (12) consecutive month period.
 - (5) The potential to emit greenhouse gases (GHGs) from the entire source shall be limited to less than one hundred thousand (100,000) tons of CO₂ equivalent emissions (CO₂e) per twelve (12) consecutive month period.
- (b) Pursuant to 326 IAC 2-2 (PSD), potential to emit particulate matter (PM) from the entire source shall be limited to less than two hundred fifty (250) tons per twelve (12) consecutive month period.
- (c) This condition shall include all emission points at this source including those that are insignificant as defined in 326 IAC 2-7-1(21). The source shall be allowed to add insignificant activities not already listed in this permit, provided the source's potential to emit does not exceed the above specified limits.
- (d) Section D of this permit contains independently enforceable provisions to satisfy this requirement.

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 twenty percent (20%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.

- (b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings as measured according to 40 CFR 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).

C.6 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.

C.7 Asbestos Abatement Projects [326 IAC 14-10][326 IAC 18][40 CFR 61, Subpart M]

- (a) Notification requirements apply to each owner or operator. If the combined amount of regulated asbestos containing material (RACM) to be stripped, removed or disturbed is at least 260 linear feet on pipes or 160 square feet on other facility components, or at least thirty-five (35) cubic feet on all facility components, then the notification requirements of 326 IAC 14-10-3 are mandatory. All demolition projects require notification whether or not asbestos is present.
- (b) The Permittee shall ensure that a written notification is sent on a form provided by the Commissioner at least ten (10) working days before asbestos stripping or removal work or before demolition begins, per 326 IAC 14-10-3, and shall update such notice as necessary, including, but not limited to the following:
 - (1) When the amount of affected asbestos containing material increases or decreases by at least twenty percent (20%); or
 - (2) If there is a change in the following:
 - (A) Asbestos removal or demolition start date;
 - (B) Removal or demolition contractor; or
 - (C) Waste disposal site.
- (c) The Permittee shall ensure that the notice is postmarked or delivered according to the guidelines set forth in 326 IAC 14-10-3(2).
- (d) The notice to be submitted shall include the information enumerated in 326 IAC 14-10-3(3).

All required notifications 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

The notice shall include a signed certification from the owner or operator that the information provided in this notification is correct and that only Indiana licensed workers and project supervisors will be used to implement the asbestos removal project. The notifications do not require a certification that meets the requirements of 326 IAC 2-8-5(a)(1) by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

- (e) **Procedures for Asbestos Emission Control**
The Permittee shall comply with the applicable emission control procedures in 326 IAC 14-10-4 and 40 CFR 61.145(c). Per 326 IAC 14-10-1, emission control requirements are applicable for any removal or disturbance of RACM greater than three (3) linear feet on pipes or three (3) square feet on any other facility components or a total of at least 0.75 cubic feet on all facility components.
- (f) **Demolition and Renovation**
The Permittee shall thoroughly inspect the affected facility or part of the facility where the demolition or renovation will occur for the presence of asbestos pursuant to 40 CFR 61.145(a).
- (g) **Indiana Licensed Asbestos Inspector**
The Permittee shall comply with 326 IAC 14-10-1(a) that requires the owner or operator, prior to a renovation/demolition, to use an Indiana Licensed Asbestos Inspector to thoroughly inspect the affected portion of the facility for the presence of asbestos.

Testing Requirements [326 IAC 2-8-4(3)]

C.8 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 2-8-5(a)(1) by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (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 2-8-5(a)(1) by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (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.9 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 2-8-4][326 IAC 2-8-5(a)(1)]

C.10 Compliance Monitoring [326 IAC 2-8-4(3)][326 IAC 2-8-5(a)(1)]

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 or of initial start-up, whichever is later, 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 or the date of initial startup, whichever is later, the Permittee may extend the compliance schedule related to the equipment for an additional ninety (90) days provided the Permittee notifies:

Indiana Department of Environmental Management
Compliance 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 2-8-5(a)(1) by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

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

C.11 Instrument Specifications [326 IAC 2-1.1-11][326 IAC 2-8-4(3)][326 IAC 2-8-5(1)]

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

Corrective Actions and Response Steps [326 IAC 2-8-4][326 IAC 2-8-5(a)(1)]

C.12 Risk Management Plan [326 IAC 2-8-4][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.13 Response to Excursions or Exceedances [326 IAC 2-8-4][326 IAC 2-8-5]

Upon detecting an excursion where a response step is required by the D Section or an exceedance of a limitation 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.

C.14 Actions Related to Noncompliance Demonstrated by a Stack Test [326 IAC 2-8-4][326 IAC 2-8-5]

- (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 2-8-5(a)(1) by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

Record Keeping and Reporting Requirements [326 IAC 2-8-4(3)]

C.15 General Record Keeping Requirements [326 IAC 2-8-4(3)][326 IAC 2-8-5]

- (a) Records of all required monitoring data, reports and support information required by this permit shall be retained for a period of at least five (5) years from the date of monitoring sample, measurement, report, or application. These records shall be physically present or electronically accessible at the source location for a minimum of three (3) years. The records may be stored elsewhere for the remaining two (2) years as long as they are available upon request. If the Commissioner makes a request for records to the Permittee, the Permittee shall furnish the records to the Commissioner within a reasonable time.
- (b) Unless otherwise specified in this permit, 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.16 General Reporting Requirements [326 IAC 2-8-4(3)(C)][326 IAC 2-1.1-11]

- (a) The Permittee shall submit the attached Quarterly Deviation and Compliance Monitoring Report or its equivalent. Any deviation from permit requirements, the date(s) of each deviation, the cause of the deviation, and the response steps taken must be reported 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 2-8-5(a)(1) by an "authorized individual" as defined by 326 IAC 2-1.1-1(1). A deviation is an exceedance of a permit limitation or a failure to comply with a requirement of the permit.
- (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.

Stratospheric Ozone Protection

C.17 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.

SECTION D.1 EMISSIONS UNIT OPERATION CONDITIONS - Surface Coating

Emissions Unit Description:

- (a) One (1) surface coating spray booth, identified as 1213, constructed in 1988, utilizing an HVLP spray application system, coating a maximum of 12 metal axles per hour, using dry filters for particulate matter control, and exhausting to one (1) stack, identified as S-21.
- (b) One (1) surface coating spray booth, identified as 1221, constructed in 1988, utilizing an HVLP spray application system, coating a maximum of 3 steel housings per hour or 24 motor exhaust ducts per day, using dry filters for particulate matter control, and exhausting to one (1) stack, identified as S-20.
- (c) One (1) surface coating spray booth, identified as BPB-1, constructed in 1988, utilizing a HVLP spray application system, coating a maximum of 3 steel housings per hour or 24 motor exhaust ducts per day, using dry filters for particulate matter control, and exhausting to one (1) stack, identified as S-53.
- (d) One (1) surface coating spray booth, identified as TD102, constructed in 2010, utilizing a HVLP spray application system, coating either steel housings at a maximum rate of 6 per hour, motor exhaust ducts at a maximum rate of 24 per day, or motor housing interiors at a maximum rate of 12 per day, using dry filters for particulate matter control, and exhausting to one (1) dual fan side stack, identified as S-56.
- (e) One (1) dip tank with cover, identified as AXDT, constructed in 2000, coating a maximum of 12 metal axles per hour.

The following insignificant activities, as defined in 326 IAC 2-7-1(21):

- (a) One (1) natural gas-fired drying oven, identified as A425, with a maximum heat input rate of 2.3 million British thermal units per hour (MMBtu/hr) and exhausting to four (4) stacks identified as S-37, S-38, S-39 and S40. [326 IAC 2-8][326 IAC 8-7]
- (o) One (1) Vacuum Process Impregnation (VPI) system, constructed in 2007, including a vacuum chamber with a capacity of six (6) locomotive motor armatures, an insulating varnish storage tank with a capacity of 700 gallons, and a wipe cleaning operation which uses a maximum of 0.38 gallon of solvent per day, processing up to twelve (12) armatures per day, and exhausting through stacks S-57 and S-58. [326 IAC 2-8][326 IAC 8-7]
- (p) Other emission units, not regulated by a NESHAP, with PM₁₀, NO_x, and SO₂ emissions less than five (5) pounds per hour or twenty-five (25) pounds per day, CO emissions less than twenty-five (25) pounds per day, VOC emissions less than three (3) pounds per hour or fifteen (15) pounds per day, lead emissions less than six-tenths (0.6) tons per year or three and twenty-nine hundredths (3.29) pounds per day, and emitting greater than one (1) pound per day but less than five (5) pounds per day or one (1) ton per year of a single HAP, or emitting greater than one (1) pound per day but less than twelve and five tenths (12.5) pounds per day or two and five tenths (2.5) tons per year of any combination of HAPs:
 - (1) One (1) paint booth, identified as TOPB, constructed in 2007, controlled by a dry filter, and exhausting to stack S-43. [326 IAC 2-8][326 IAC 8-7][326 IAC 6.8-1-2]
[326 IAC 8-2-9]

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

Emissions Unit Description (continued):

- (q) One (1) dip tank with cover, identified as AXDT2, constructed in 2008, coating a maximum of 12 metal axles per hour. [326 IAC 2-8][326 IAC 8-2-9]
- (r) One (1) Traction Motor Drying oven, identified as TMDO, constructed in 2008, electrically heated and venting to stack S-55 to vent water vapor. [326 IAC 2-8][326 IAC 8-7]

(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 2-8-4(1)]

D.1.1 Volatile Organic Compounds (VOC) [326 IAC 8-2-9]

- (a) The volatile organic compound (VOC) content of the coating delivered to the applicator at the three (3) surface coating spray booths (1213, 1221, and BPB-1), paint booth TOPB, dip tanks AXDT and AXDT2, and Vacuum Process Impregnation (VPI) system shall be limited to 3.5 pounds of VOCs per gallon of coating less water, for forced warm air dried coatings, and 4.3 pounds of VOCs per gallon of coating less water, for clear coatings.
- (b) Work practices shall be used to minimize VOC emissions from mixing operations, storage tanks, and other containers, and handling operations for coatings, thinners, cleaning materials, and waste materials. Work practices shall include, but not be limited to, the following:
 - (1) Store all VOC containing coatings, thinners, coating related waste, and cleaning materials in closed containers.
 - (2) Ensure that mixing and storage containers used for VOC containing coatings, thinners, coating related waste, and cleaning materials are kept closed at all times except when depositing or removing these materials.
 - (3) Minimize spills of VOC containing coatings, thinners, coating related waste, and cleaning materials.
 - (4) Convey VOC containing coatings, thinners, coating related waste, and cleaning materials from one (1) location to another in closed containers or pipes.
 - (5) Minimize VOC emissions from the cleaning of application, storage, mixing, and conveying equipment by ensuring that equipment cleaning is performed without atomizing the cleaning solvent and all spent solvent is captured in closed containers.

D.1.2 Emission Offset Minor Limit [326 IAC 2-8][326 IAC 8-7]

Pursuant to 326 IAC 2-8-4 (FESOP) and in order to render the requirements of 326 IAC 2-7 (Part 70) not applicable, the total usage of VOCs, including coatings, dilution solvents, and cleaning solvents, in the surface coating spray booths 1213, 1221, TD102 and BPB-1, dip tank AXDT, Vacuum Process Impregnation (VPI) System, paint booth TOPB, dip tank AXDT2, drying oven A425, Traction Motor Drying oven TMDO, combined with the degreasing operations SML-1, 865A, 1218, 1219, A378, 765, 982, and A534, and aqueous washers FAW, 1239, and 1292, shall be limited to less than 24.49 tons per twelve (12) consecutive month period with compliance demonstrated at the end of each month.

Compliance with the above limit, combined with the potential to emit VOC from other emission units at the source, shall limit the VOC from the entire source to less than 25 tons per twelve (12) consecutive month period and render 326 IAC 2-7 (Part 70) not applicable.

D.1.3 PM Emission Limits [326 IAC 6.8-1-2]

Pursuant to 326 IAC 6.8-1-2(a) (Particulate Matter Limitations for Lake County), PM emissions from each of the paint booths 1213, 1221, BPB-1, TD102, and TOPB shall not exceed seven hundredths (0.07) gram per dry standard cubic meter (g/dscm) (three-hundredths (0.03) grain per dry standard cubic foot (dscf).

D.1.4 Preventive Maintenance Plan [326 IAC 2-8-4(9)]

A Preventive Maintenance Plan is required for these facilities and any control devices. Section B- Preventive Maintenance Plan contains the Permittee's obligation with regard to the preventive maintenance plan required by this condition.

Compliance Determination Requirements

D.1.5 Volatile Organic Compounds (VOC) [326 IAC 8-1-2][326 IAC 8-1-4]

Compliance with the VOC content and usage limitations contained in Conditions D.1.1 and D.1.2 shall be determined pursuant to 326 IAC 8-1-4(a)(3) and 326 IAC 8-1-2(a) by preparing or obtaining from the manufacturer the copies of the "as supplied" and "as applied" VOC data sheets. IDEM, OAQ reserves the authority to determine compliance using Method 24 in conjunction with the analytical procedures specified in 326 IAC 8-1-4.

D.1.6 Particulate Control

In order to comply with D.1.3, the dry filters for PM control shall be in operation and control emissions from paint booths 1213, 1221, BPB-1, TD102, and TOPB at all times that paint booths 1213, 1221, BPB-1, TD102, and TOPB are in operation.

Compliance Monitoring Requirements [326 IAC 2-8-4][326 IAC 2-8-5(a)(1)]

D.1.7 Monitoring

- (a) Daily inspections shall be performed to verify the placement, integrity and particle loading of the filters and plenums. To monitor the performance of the dry filters, weekly observations shall be made of the overspray from the surface coating spray booth stacks, S-21, S-20, S-53, and S-56, while one or more of the booths are in operation. If a condition exists which should result in a response step, the Permittee shall take reasonable response steps. Section C - 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.
- (b) Monthly inspections shall be performed of the coating emissions from the stacks and the presence of overspray on the rooftops and the nearby ground. When there is a noticeable change in overspray emissions, or when evidence of overspray emissions is observed, the Permittee shall take reasonable response steps. Section C - 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 2-8-4(3)]

D.1.8 Record Keeping and Reporting Requirements [326 IAC 8-7]

- (a) Pursuant to 326 IAC 8-7-6, the Permittee shall submit the following certification:
- (1) the name and address of the source and the name and telephone number of the company representative;
 - (2) identification of each VOC emitting facility together with a description of the purpose each facility serves;
 - (3) a listing of facilities which meet the requirements of 326 IAC 8-7-2(a);
 - (4) baseline actual emissions for each facility identified in 326 IAC 8-7-6(3) together with the following information:
 - (A) maximum design rate, maximum production, or maximum throughput; and
 - (B) VOC emission factors with reference to the source of the emission factors and procedures as to how the emission factors were estimated, for example, the type of each fuel or process chemicals used and the baseline year used; and
 - (5) procedures that will be used to monitor the source's potential emissions to ensure that they remain below twenty-five (25) tons per year.
- (b) Records required by this rule or records used to demonstrate that a source is exempt from the requirements of this rule shall be submitted to the department, the IDEM Northwest Indiana Office or the U.S. EPA within thirty (30) days of the receipt of a written request. If such records are not available, the source shall be considered subject to the emission limits contained in 326 IAC 8-7-3.
- (c) Sources subject to this rule shall notify the department at least thirty (30) days prior to the addition or modification of a facility which may result in a potential increase in VOC emissions.
- (d) Section C - General Record Keeping Requirements contains the Permittee's obligation with regard to the records required by this condition.

D.1.9 Record Keeping Requirements

- (a) To document the compliance status with Conditions D.1.1 and D.1.2, the Permittee shall maintain records in accordance with (1) through (5) below for all the surface coating operations listed in Section D.1. Records maintained for (1) through (5) shall be taken monthly and shall be complete and sufficient to establish compliance with the respective VOC emission and usage limits established in Conditions D.1.1 and D.1.2. Records necessary to demonstrate compliance shall be available within 30 days of the end of each compliance period.
- (1) The VOC content of each coating material and solvent used.
 - (2) The amount of coating material and solvent less water used on a monthly basis.
 - (A) Records shall include purchase orders, invoices, and material safety data sheets (MSDS) necessary to verify the type and amount used.

- (B) Solvent usage records shall differentiate between those added to coatings and those used as cleanup solvents.
 - (3) The cleanup solvent usage for each month;
 - (4) The total VOC usage for each month; and
 - (5) The weight of VOCs emitted for each compliance period.
- (b) To document the compliance status with Condition D.1.7, the Permittee shall maintain a log of weekly overspray observations, once per day filter/plenum and monthly inspections, and those additional inspections prescribed by the Preventive Maintenance Plan. If overspray observations of a stack were not performed for any week due to inclement weather, the Permittee shall make a record of the types(s) of inclement weather and an explanation of why the inclement weather made rooftop access unsafe for purposes of observing the stack.
 - (c) Section C - General Record Keeping Requirements contains the Permittee's obligation with regard to the records required by this condition.

D.1.10 Reporting Requirements

A quarterly summary of the information to document the compliance status with Condition D.1.2 shall be submitted, using the reporting forms located at the end of this permit, or their equivalent, not later than thirty (30) days after the end of the quarter being reported. Section C - 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 2-8-5(a)(1) by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

SECTION D.2 EMISSIONS UNIT OPERATION CONDITIONS - Degreasing Operations

Emissions Unit Description:

- (f) One (1) cold cleaner degreasing operation, approved for construction in 2011, identified as SML-1 (exhausting inside) which uses an aqueous cleaning solvent. This unit is not equipped with a solvent heater.
- (g) One (1) degreaser for truck service/repair operation, identified as 865A, exhausting indoors, constructed in 2007, using an organic cleaning solvent, with a maximum capacity of 260 gallons.
- (h) Cold cleaner degreasing operations using heated organic or non-organic cleaners, consisting of three (3) units constructed in 1988, identified as 1218 (stack ID # S-22), 1219 (stack ID # S-19), and A378 (stack ID # S-52).
- (i) One (1) conveyORIZED degreasing operation using a heated organic or non-organic alkaline solution, identified as 765, constructed in 1988 (stack ID # S-3).
- (j) Cold cleaner degreasing operations using heated organic or non-organic cleaners, including an alkaline solution or hot water, consisting of one(1) unit constructed in 1988, identified as 982 (stack ID # S-10) .
- (k) One (1) heated organic or non-organic solvent degreasing unit, identified as A574, approved for construction in 2013, equipped with two (2) natural gas fired heaters, with heat input capacities each of 0.8 MMBtu/hr, the heaters will exhaust to stacks S-59 and S-65, respectively, and A574 will exhaust to stack S-60.
- (l) One (1) aqueous washer using heated organic or non-organic cleaners, identified as FAW, constructed in 2007, and exhausting inside the building.

The following insignificant activities, as defined in 326 IAC 2-7-1(21):

- (p) Other emission units, not regulated by a NESHAP, with PM₁₀, NO_x, and SO₂ emissions less than five (5) pounds per hour or twenty-five (25) pounds per day, CO emissions less than twenty-five (25) pounds per day, VOC emissions less than three (3) pounds per hour or fifteen (15) pounds per day, lead emissions less than six-tenths (0.6) tons per year or three and twenty-nine hundredths (3.29) pounds per day, and emitting greater than one (1) pound per day but less than five (5) pounds per day or one (1) ton per year of a single HAP, or emitting greater than one (1) pound per day but less than twelve and five tenths (12.5) pounds per day or two and five tenths (2.5) tons per year of any combination of HAPs:
 - (2) One (1) organic or non-organic alkaline aqueous washer, identified as Unit 1239, constructed in 2007, equipped with two (2) 0.8 MMBtu/hr natural gas-fired heaters, and exhausting to stacks S-46 and S-47. [326 IAC 2-8][326 IAC 8-7]
 - (3) One (1) alkaline organic or non-organic aqueous washer, identified as Unit 1292, constructed in 2007, equipped with one (1) 2.5 MMBtu/hr natural gas-fired heater, and exhausting to stacks S-48 and S-49. [326 IAC 2-8][326 IAC 8-7]

(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 2-8-4(1)]

D.2.1 Emission Offset Minor Limit [326 IAC 2-8][326 IAC 8-7]

Pursuant to 326 IAC 2-8-4 (FESOP) and in order to render the requirements of 326 IAC 2-7 (Part 70) not applicable, the total usage of VOCs, including coatings, dilution solvents, and cleaning solvents, in the surface coating spray booths 1213, 1221, TD102 and BPB-1, dip tank AXDT, Vacuum Process Impregnation (VPI) System, paint booth TOPB, dip tank AXDT2, drying oven A425, Traction Motor Drying oven TMDO, combined with the degreasing operations SML-1, 865A, 1218, 1219, A378, 765, 982, and A534, and aqueous washers FAW, 1239, and 1292, shall be limited to less than 24.49 tons per twelve (12) consecutive month period with compliance demonstrated at the end of each month.

Compliance with the above limit, combined with the potential to emit VOC from other emission units at the source, shall limit the VOC from the entire source to less than 25 tons per twelve (12) consecutive month period and render 326 IAC 2-7 (Part 70) not applicable.

D.2.2 Volatile Organic Compounds (VOC) [326 IAC 8-3-2]

Pursuant to 326 IAC 8-3-2 (Cold Cleaner Degreaser Control Equipment and Operating Requirements), for cold cleaner degreasing unit 865A, the Permittee shall comply with the following:

- (a) The Permittee shall ensure the following control equipment and operating requirements are met:
 - (1) Equip the degreaser with a cover.
 - (2) Equip the degreaser with a device for draining cleaned parts.
 - (3) Close the degreaser cover whenever parts are not being handled in the degreaser.
 - (4) Drain cleaned parts for at least fifteen (15) seconds or until dripping ceases.
 - (5) Provide a permanent, conspicuous label that lists the operating requirements in (a)(3), (a)(4), (a)(6), and (a)(7) of this condition.
 - (6) Store waste solvent only in closed containers.
 - (7) Prohibit the disposal or transfer of waste solvent in such a manner that greater than twenty percent (20%) of the waste solvent (by weight) to evaporate into the atmosphere.
- (b) The Permittee shall ensure the following additional control equipment and operating requirements are met:
 - (1) Equip the degreaser with one (1) of the following control devices if the solvent is heated to a temperature of greater than forty-eight and nine-tenths (48.9) degrees Celsius (one hundred twenty (120) degrees Fahrenheit):
 - (A) A freeboard that attains a freeboard ratio of seventy-five hundredths (0.75) or greater.
 - (B) A water cover when solvent used is insoluble in, and heavier than, water.
 - (C) A refrigerated chiller.

- (D) Carbon adsorption.
 - (E) An alternative system of demonstrated equivalent or better control as those outlined in (b)(1)(A) through (D) of this condition that is approved by the department. An alternative system shall be submitted to the U.S. EPA as a SIP revision.
- (2) Ensure the degreaser cover is designed so that it can be easily operated with one (1) hand if the solvent is agitated or heated.
 - (3) If used, solvent spray:
 - (A) must be a solid, fluid stream; and
 - (B) shall be applied at a pressure that does not cause excessive splashing.

D.2.3 Volatile Organic Compounds [326 IAC 8-3-2][326 IAC 8-3-4][326 IAC 8-3-8]

The actual VOC emissions from the degreasing units SML-1, 1218, 1219, A378, 1239, 1292, 982, A534, FAW and 765 shall each be less than 15 lbs/day.

Compliance with this condition shall make the requirements of 326 IAC 8-3-2 (Cold Cleaner Operations), 326 IAC 8-3-4 (Conveyorized Degreaser Operation), and 326 IAC 8-3-8 (Material Requirements for Cold Cleaning Degreasers) not applicable to the units listed in this condition.

D.2.4 Volatile Organic Compounds (VOC) [326 IAC 8-3-8]

Pursuant to 326 IAC 8-3-8(b)(2) (Material Requirements for Cold Cleaning Degreasers), the Permittee shall not operate the cold cleaner degreaser unit 865A with a solvent that has a VOC composite partial vapor pressure that exceeds one (1) millimeter of mercury (nineteen-thousandths (0.019) pound per square inch) measured at twenty (20) degrees Celsius (sixty-eight (68) degrees Fahrenheit).

Record Keeping and Reporting Requirements [326 IAC 2-8-4(3)][326 IAC 2-8-16]

D.2.5 Record Keeping Requirements [326 IAC 8-3-8]

- (a) Pursuant to 326 IAC 8-3-8(c)(2), the Permittee shall maintain each of the following records relating to each purchase of solvent used at the cold cleaner degreaser 865A:
 - (1) The name and address of the solvent supplier.
 - (2) The date of purchase (or invoice/bill date of contract servicer indicating service date).
 - (3) The type of solvent purchased.
 - (5) The total volume of the solvent purchased.
 - (6) The true vapor pressure of the solvent measured in millimeters of mercury at twenty (20) degrees Celsius (sixty-eight (68) degrees Fahrenheit).
- (b) Pursuant to 326 IAC 8-3-8(d), all records required in paragraph (a) shall be retained onsite or accessible electronically from the site for the most recent three (3) year period and shall be reasonably accessible for an additional two (2) year period.

D.2.6 Record Keeping and Reporting Requirements [326 IAC 8-7]

- (a) Pursuant to 326 IAC 8-7-6, the Permittee shall submit the following certification for the cold cleaner degreaser identified as 865A:
- (1) the name and address of the source and the name and telephone number of the company representative;
 - (2) identification of each VOC emitting facility together with a description of the purpose each facility serves;
 - (3) a listing of facilities which meet the requirements of 326 IAC 8-7-2(a);
 - (4) baseline actual emissions for each facility identified in 326 IAC 8-7-6(3) together with the following information:
 - (A) maximum design rate, maximum production, or maximum throughput; and
 - (B) VOC emission factors with reference to the source of the emission factors and procedures as to how the emission factors were estimated, for example, the type of each fuel or process chemicals used and the baseline year used.
 - (5) procedures that will be used to monitor the source's potential emissions to ensure that they remain below twenty-five (25) tons per year.
- (b) Records required by this rule or records used to demonstrate that a source is exempt from the requirements of this rule shall be submitted to the department, the IDEM Northwest Indiana Office or the U.S. EPA within thirty (30) days of the receipt of a written request. If such records are not available, the source shall be considered subject to the emission limits contained in 326 IAC 8-7-3.
- (c) Sources subject to this rule shall notify the department at least thirty (30) days prior to the addition or modification of a facility which may result in a potential increase in VOC emissions.
- (d) Section C - General Record Keeping Requirements contains the Permittee's obligation with regard to the records required by this condition.

D.2.7 Record Keeping Requirements

- (a) To document the compliance status with Condition D.2.1, the Permittee shall maintain records in accordance with (1) through (4) below for the degreasing units listed in Section D.2 which use VOC containing solvents or cleaning solutions. Records maintained for (1) through (4) shall be taken monthly and shall be complete and sufficient to establish compliance with the VOC usage limit established in Condition D.2.1. Records necessary to demonstrate compliance shall be available within 30 days of the end of each compliance period.
- (1) The VOC content of the degreasing solvent used;
 - (2) The amount of the VOC degreasing solvent used on monthly basis. Records shall include purchase orders, invoices, and material safety data sheets (MSDS) necessary to verify the type and amount used;
 - (3) The total VOC usage for each month; and

- (4) The weight of VOCs emitted for each compliance period.
- (b) To document the compliance status with Condition D.2.3, the Permittee shall maintain daily records in accordance with (1) through (3) below for each of the degreasing units (SML-1, 1218, 1219, A378, 1239, 1292, 982, A534, FAW and 765) when VOC containing solutions are used in these units. Records maintained for (1) through (3) shall be taken daily and shall be complete and sufficient to establish compliance with the VOC emission limit established in Condition D.2.3. Records necessary to demonstrate compliance shall be available within 30 days of the end of each compliance period.
 - (1) The VOC content of the defoamer or organic solvent used.
 - (2) The amount of the defoamer or organic solvent used on daily basis. Records shall include purchase orders, invoices, and material safety data sheets (MSDS) necessary to verify the type and amount used.
 - (3) The total VOC emissions per day.
 - (c) Section C - General Record Keeping Requirements contains the Permittee's obligation with regard to the records required by this condition.

D.2.8 Reporting Requirements

A quarterly summary of the information to document the compliance status with Condition D.2.1 shall be submitted, using the reporting forms located at the end of this permit, or their equivalent, not later than thirty (30) days after the end of the quarter being reported. Section C - 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 2-8-5(a)(1) by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

SECTION D.3 EMISSIONS UNIT OPERATION CONDITIONS - Mechanical Blasting Unit

Emissions Unit Description:

- (m) One (1) mechanical blasting unit, identified as 617, constructed in 2006, with a maximum capacity of 8000 pounds of steel parts per hour, utilizing one (1) baghouse for particulate matter control, and exhausting to stack S-9.

The following trivial activities as defined in 326 IAC 2-7-1(42)

- (a) One (1) portable recirculating blaster unit, identified as QUIK-BLAST, approved for construction in 2011, with a maximum blast rate of 137.1 pounds per hour, controlled by a 2-stage filter, exhausting indoors. [326 IAC 6.8-1-2]
- (b) One (1) Wheel Qualification Station, identified as WQS-1, constructed in 2011, using hand operated tools for removal of debris from wheel sets at a maximum capacity of 3 wheel sets per hour, with particulate emissions controlled by a hooded fan, and exhausting to stack S-61. [326 IAC 6.8-1-2]
- (c) One (1) Wheel Qualification Station, identified as WQS-2, constructed in 2011, using hand operated tools for removal of debris from wheel sets at a maximum capacity of 3 wheel sets per hour, with particulate emissions controlled by a hooded fan, and exhausting to stack S-62. [326 IAC 6.8-1-2]
- (d) One (1) Farrell Turning Lathe, identified as FTL-1, constructed in 2011, for re-profiling/machining of wheel sets at a maximum capacity of 3 wheel sets per hour, with particulate emissions controlled by two (2) hooded fans, and exhausting to stacks S-63 and S-64. [326 IAC 6.8-1-2]
- (e) One (1) Hegenscheidt lathe, identified as Heg-1, constructed in 1999, for reprofiling/machining of wheel sets at a maximum capacity of 3.5 wheel sets per hour, with particulate emissions controlled by a fabric filter, and exhausting to stack S-61. [326 IAC 6.8-1-2]
- (f) One (1) booth, identified as TD101, constructed in 2007, using hand operated tools for removal of debris from parts at a maximum capacity of 3 parts per hour, using dry filters for particulate matter control, and exhausting to stack S-54. [326 IAC 6.8-1-2]

(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 2-8-4(1)]

D.3.1 PM Emission Limits [326 IAC 6.8-1-2]

Pursuant to 326 IAC 6.8-1-2(a) (Particulate Matter Limitations for Lake County), PM emissions from the blasting unit 617, the portable recirculating blaster unit (QUIK-BLAST), booth TD101, each of the wheel qualification stations (WQS-1 and WQS-2), the Hegenscheidt lathe (Heg-1), and the Farrell turning lathe (FTL-1) shall not exceed seven-hundredths (0.07) gram per dry standard cubic meter (g/dscm) (three-hundredths (0.03) grain per dry standard cubic foot (dscf).

D.3.2 PM, PM10, and PM2.5 Emission Limits [326 IAC 2-8][326 IAC 2-2][326 IAC 2-1.1-5]

Pursuant to 326 IAC 2-8-4 (FESOP) and in order to render the requirements of 326 IAC 2-7 (Part 70), 326 IAC 2-2 (PSD), and 326 IAC 2-1.1-5 (Nonattainment New Source Review) not applicable, the PM, PM10 and PM2.5 emitted from the following processes shall be limited as follows:

Emission Unit	PM Limit (lb/hr)	PM10 Limit (lb/hr)	PM2.5 Limit (lb/hr)
Mechanical Blaster (617)	9.15	9.15	9.15

Compliance with the above limit, combined with the potential to emit PM, PM10, and PM2.5 from other emission units at the source, shall limit the PM, PM10, and PM2.5 emissions from the entire source to less than 250 tons, 100 tons, and 100 tons per year, respectively, and shall render the requirements of 326 IAC 2-7 (Part 70), 326 IAC 2-2 (PSD), and 326 IAC 2-1.1-5 (Nonattainment New Source Review) not applicable.

D.3.3 Preventive Maintenance Plan [326 IAC 2-8-4(9)]

A Preventive Maintenance Plan is required for mechanical blaster 617, the portable recirculating blaster unit (QUIK-BLAST), booth TD101, each of the wheel qualification stations (WQS-1 and WQS-2), the Hegenscheidt lathe (Heg-1), and the Farrell turning lathe (FTL-1), and any associated control devices. Section B - Preventive Maintenance Plan contains the Permittee's obligation with regard to the preventive maintenance plan required by this condition.

Compliance Determination Requirements

D.3.4 Particulate, PM10 and PM2.5 Control

- (a) In order to comply with D.3.1 and D.3.2, the baghouse for PM, PM10, and PM2.5 control shall be in operation and control emissions from the mechanical blasting unit 617 at all times that mechanical blasting unit 617 is in operation.
- (b) In order to comply with D.3.1, the cyclone and 2-stage filter for PM control shall be in operation and control emissions from the portable recirculating blaster unit (QUIK-BLAST) at all times that the portable recirculating blaster unit (QUIK-BLAST) is in operation.

Compliance Monitoring Requirements [326 IAC 2-8-4][326 IAC 2-8-5(a)(1)]

D.3.5 Visible Emissions Notations

- (a) Visible emission notations of the mechanical blasting unit 617 stack exhaust shall be performed once per day during normal daylight operations. A trained employee shall record whether emissions are normal or abnormal.
- (b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.
- (c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.
- (d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.

- (e) If abnormal emissions are observed, the Permittee shall take reasonable response steps. Section C - 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.3.6 Parametric Monitoring

The Permittee shall record the pressure drop across the baghouse used in conjunction with mechanical blasting unit 617, at least once per day when the mechanical blasting unit is in operation. When for any one reading, the pressure drop across the baghouse is outside the normal range of 1.0 and 6.5 inches of water or a range established during the latest stack test, the Permittee shall take reasonable response steps. Section C - 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 ranges 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 Section C - Instrument Specifications, of this permit, shall be subject to approval by IDEM, OAQ, and shall be calibrated at least once every six (6) months.

D.3.7 Broken or Failed Bag Detection

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

Bag failure can be indicated by a significant drop in the baghouse'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 Requirement [326 IAC 2-8-4(3)][326 IAC 2-8-16]

D.3.8 Record Keeping Requirement

- (a) To document the compliance status with Condition D.3.5, the Permittee shall maintain records of once per day visible emission notations of the mechanical blasting unit 617 stack exhaust. The Permittee shall include in its records 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.3.6, the Permittee shall maintain once per day 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).
- (c) Section C - General Record Keeping Requirements contains the Permittee's obligation with regard to the records required by this condition.

SECTION D.4 EMISSIONS UNIT OPERATION CONDITIONS - Welding Operations

Emissions Unit Description:

The following insignificant activities, as defined in 326 IAC 2-7-1(21):

- (n) The following equipment related to manufacturing activities not resulting in the emission of HAPs: brazing equipment, cutting torches, soldering equipment, welding equipment. [326 IAC 6.8-1-2]
 - (1) Six (6) welding stations utilized as follows:
 - (A) Metal inert gas welding tasks conducted at five (5) stations, with a maximum hourly consumption of 1.0 pound of wire per station;
 - (B) Stick welding tasks conducted at three (3) stations, with a maximum hourly consumption of 0.75 pounds of electrode per station; and
 - (C) Tungsten inert gas welding tasks conducted at one (1) station, with a maximum hourly consumption of 1.5 sticks per hour.
 - (2) One (1) flame cutting station utilizing oxyacetylene, with a maximum cutting rate of 18 inches per minute.
 - (3) One (1) air arc steel cutting station, with an electrode consumption rate of 0.26 pounds per hour.
 - (4) Three (3) MIG welding stations, approved for construction in 2007, each with a maximum consumption of 0.075 pounds of wire per hour.
 - (5) One (1) air arc cutting operation, identified as AAB, constructed in 2007, exhausting through stacks S-32 and S-33.

(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 2-8-4(1)]

D.4.1 PM Emission Limits [326 IAC 6.8-1-2]

Pursuant to 326 IAC 6.8-1-2(a) (Particulate Matter Limitations for Lake County), PM emissions from each of welding and cutting stations shall not exceed seven hundredths (0.07) gram per dry standard cubic meter (g/dscm) (three-hundredths (0.03) grain per dry standard cubic foot (dscf).

SECTION D.5 EMISSIONS UNIT OPERATION CONDITIONS - Blasting Operations

Emissions Unit Description:

- (n) One (1) rotoblaster for truck service/repair operation, identified as Unit 1255, constructed in 2007, controlled by a baghouse, and exhausting to stack S-44.
- (o) One (1) grit blast booth for truck service/repair operation, identified as TOBB, constructed in 2007, with a maximum blast rate of 750 pounds of black beauty or aluminum white oxide per hour, controlled by a baghouse, and exhausting to stack S-45.

(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 2-8-4(1)]

D.5.1 PM/PM10/PM2.5 Emission Limits [326 IAC 2-8-4][326 IAC 2-2][326 IAC 2-1.1-5]

Pursuant to 326 IAC 2-8-4 (FESOP) and in order to render the requirements of 326 IAC 2-7 (Part 70), 326 IAC 2-2 (PSD), and 326 IAC 2-1.1-5 (Nonattainment New Source Review) not applicable, the PM, PM10 and PM2.5 emissions from blasting units 1255 and TOBB shall be less than the following:

Unit ID	Unit Description	PM/PM10/PM2.5 Emission Limits (lbs/hr)
1255	Rotoblaster Unit	0.04
TOBB	Grit Blasting Unit	0.06

Compliance with the above limits, combined with the potential to emit PM, PM10, and PM2.5 from other emission units at the source, shall limit the PM, PM10, and PM2.5 from the entire source to less than 250 tons, 100 tons, and 100 tons per year, respectively, and shall render the requirements of 326 IAC 2-7 (Part 70 Permit), 326 IAC 2-2 (PSD), and 326 IAC 2-1.1-5 (Nonattainment NSR) not applicable.

D.5.2 Minor Permit Revision Limits [326 IAC 2-8-11.1(d)]

Pursuant to Minor Permit Revision No. 089-24989-00381, issued on October 11, 2007 and 326 IAC 2-8-11.1(d)(5)(C) (Minor Permit Revision), the Permittee shall comply with the following for the baghouses associated with blasting units 1255 and TOBB:

- (a) Achieving and maintaining 99% efficiency.
- (b) No visible emissions.

Compliance with these requirements shall render the requirements of 326 IAC 2-8-11.1(f) (Significant Permit Revision) not applicable.

D.5.3 PM Emission Limits [326 IAC 6.8-1-2]

Pursuant to 326 IAC 6.8-1-2(a) (Particulate Matter Limitations for Lake County), PM emissions from each of the blasting units 1255 and TOBB shall not exceed seven-hundredths (0.07) gram per dry standard cubic meter (g/dscm) (three-hundredths (0.03) grain per dry standard cubic foot (dscf).

D.5.4 Preventive Maintenance Plan [326 IAC 2-8-4(9)]

A Preventive Maintenance Plan is required for these facilities and their control devices. Section B - Preventive Maintenance Plan contains the Permittee's obligation with regard to the preventive maintenance plan required by this condition.

Compliance Determination Requirements

D.5.5 Particulate Control

In order to comply with Conditions D.5.1 through D.5.3, each of the blasting units, identified as 1255 and TOBB, shall be controlled by the associated baghouse when the unit is in operation.

Compliance Monitoring Requirements [326 IAC 2-8-4][326 IAC 2-8-5(a)(1)]

D.5.6 Visible Emissions Notations

- (a) Visible emission notations of the rotoblaster and grit blast booth stack exhausts, identified as S-44 and S-45, respectively, shall be performed once per day during normal daylight operations. A trained employee shall record whether emissions are normal or abnormal.
- (b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.
- (c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.
- (d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.
- (e) If abnormal emissions are observed, the Permittee shall take reasonable response steps. Section C - 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 Parametric Monitoring

The Permittee shall record the pressure drop across the baghouses used in conjunction with blasting units 1255 and TOBB, at least once per day when these units are in operation. When for any one reading, the pressure drop across the baghouses is outside the normal ranges listed in the table below or a range established during the latest stack test, the Permittee shall take reasonable response steps. Section C - 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.

Emission Unit ID	Pressure Drop Range (inches of water)	Emission Point
1255	0.5 - 6.5	Stack S-44
TOBB	0.5 - 6.5	Stack S-45

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

D.5.8 Broken or Failed Bag Detection

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

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

Bag failure can be indicated by a significant drop in the baghouse'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 Requirement [326 IAC 2-8-4(3)][326 IAC 2-8-16]

D.5.9 Record Keeping Requirements

- (a) To document the compliance status with Condition D.5.6, the Permittee shall maintain records of daily visible emission notations of the baghouse 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) To document the compliance status with Condition D.5.7, the Permittee shall maintain daily records of the pressure drop. The Permittee shall include in its daily record when a pressure drop reading is not taken and the reason for the lack of a pressure drop reading (e.g., the process did not operate that day).
- (c) Section C - General Record Keeping Requirements contains the Permittee's obligation with regard to the records required by this condition.

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

**FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP)
CERTIFICATION**

Source Name: Progress Rail Services Corporation
Source Address: 175 West Chicago Avenue, East Chicago, Indiana 46312
FESOP Permit No.: F089-27298-00381

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:

Date:

**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**

**FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP)
EMERGENCY OCCURRENCE REPORT**

Source Name: Progress Rail Services Corporation
Source Address: 175 West Chicago Avenue, East Chicago, Indiana 46312
FESOP Permit No.: F089-27298-00381

This form consists of 2 pages

Page 1 of 2

- | |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <input type="checkbox"/> This is an emergency as defined in 326 IAC 2-7-1(12) <ul style="list-style-type: none">• The Permittee must notify the Office of Air Quality (OAQ), within four (4) business hours (1-800-451-6027 or 317-233-0178, ask for Compliance Section); and• The Permittee must submit notice in writing or by facsimile within two (2) 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:

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

Page 2 of 2

Date/Time Emergency started:
Date/Time Emergency was corrected:
Was the facility being properly operated at the time of the emergency? Y N Describe:
Type of Pollutants Emitted: TSP, PM-10, SO 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: _____

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

FESOP Quarterly Report

Source Name: Progress Rail Services Corporation
Source Address: 175 West Chicago Avenue, East Chicago, Indiana 46312
FESOP Permit No.: F089-27298-00381
Facility: Surface coating spray booths 1213, 1221, TD102 and BPB-1, dip tank AXDT, Vacuum Process Impregnation (VPI) System, paint booth TOPB, dip tank AXDT2, drying oven A425, Traction Motor Drying oven TMDO, combined with the degreasing operations SML-1, 865A, 1218, 1219, A378, 765, 982, and A534, and aqueous washers FAW, 1239, and 1292.
Parameter: VOC usage
Limit: Less than 24.49 tons per 12 consecutive month period with compliance demonstrated at the end of each month.

YEAR: _____

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

- No deviation occurred in this quarter.
- Deviation/s occurred in this quarter.
Deviation has been reported on: _____

Submitted by: _____

Title / Position: _____

Signature: _____

Date: _____

Phone: _____

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE AND ENFORCEMENT BRANCH
FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP)
QUARTERLY DEVIATION AND COMPLIANCE MONITORING REPORT**

Source Name: Progress Rail Services Corporation
Source Address: 175 West Chicago Avenue, East Chicago, Indiana 46312
FESOP Permit No.: F089-27298-00381

Months: _____ to _____ Year: _____

Page 1 of 2

<p>This report shall be submitted quarterly based on a calendar year. 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".</p>	
<p><input type="checkbox"/> NO DEVIATIONS OCCURRED THIS REPORTING PERIOD.</p>	
<p><input type="checkbox"/> THE FOLLOWING DEVIATIONS OCCURRED THIS REPORTING PERIOD</p>	
<p>Permit Requirement (specify permit condition #)</p>	
<p>Date of Deviation:</p>	<p>Duration of Deviation:</p>
<p>Number of Deviations:</p>	
<p>Probable Cause of Deviation:</p>	
<p>Response Steps Taken:</p>	
<p>Permit Requirement (specify permit condition #)</p>	
<p>Date of Deviation:</p>	<p>Duration of Deviation:</p>
<p>Number of Deviations:</p>	
<p>Probable Cause of Deviation:</p>	
<p>Response Steps Taken:</p>	

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: _____

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

**Technical Support Document (TSD) for a Part 70 Administrative
Amendment**

Source Description and Location

Source Name:	Progress Rail Services Corporation
Source Location:	175 West Chicago Avenue, East Chicago, IN 46312
County:	Lake
SIC Code:	4789
Operation Permit No.:	T 089-27298-00381
Operation Permit Issuance Date:	October 7, 2009
Administrative Amendment No.:	089-33322-00381
Permit Reviewer:	Adam Wheat

Existing Approvals

The source was issued Part 70 Operating Permit No. 089-27298-00381 on October 7, 2009. The source has since received the following approvals:

- (a) Minor Permit Revision No. 089-29591-00381, issued on November 23, 2011; and
- (b) Administrative Amendment No. 089-32670-00381, issued on June 19, 2013.

County Attainment Status

The source is located in Lake County.

Pollutant	Designation
SO ₂	Better than national standards.
CO	Attainment effective February 18, 2000, for the part of the city of East Chicago bounded by Columbus Drive on the north; the Indiana Harbor Canal on the west; 148 th Street, if extended, on the south; and Euclid Avenue on the east. Unclassifiable or attainment effective November 15, 1990, for the remainder of East Chicago and Lake County.
O ₃	On June 11, 2012, the U.S. EPA designated Lake County nonattainment, for the 8-hour ozone standard.
PM ₁₀	Attainment effective March 11, 2003, for the cities of East Chicago, Hammond, Whiting, and Gary. Unclassifiable effective November 15, 1990, for the remainder of Lake County.
NO ₂	Cannot be classified or better than national standards.
Pb	Not designated.

¹The U. S. EPA has acknowledged in both the proposed and final rulemaking for this redesignation that the anti-backsliding provisions for the 1-hour ozone standard no longer apply as a result of the redesignation under the 8-hour ozone standard. Therefore, permits in Lake County are no longer subject to review pursuant to Emission Offset, 326 IAC 2-3.

Unclassifiable or attainment effective February 6, 2012, for PM2.5.

- (a) **Ozone Standards**
U.S. EPA, in the Federal Register Notice 77 FR 112 dated June 11, 2012, has designated Lake County as nonattainment for ozone. On August 1, 2012 the air pollution control board issued an emergency rule adopting the U.S. EPA's designation. This rule became effective, August 9, 2012. IDEM, does not agree with U.S. EPA's designation of nonattainment. IDEM filed a suit against US EPA in the US Court of Appeals for the DC

Circuit on July 19, 2012. However, in order to ensure that sources are not potentially liable for a violation of the Clean Air Act, the OAQ is following the U.S. EPA's designation. 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. Therefore, VOC and NO_x emissions were evaluated pursuant to the requirements of Emission Offset, 326 IAC 2-3. See the State Rule Applicability – Entire Source section.

- (b) **PM_{2.5}**
 Lake County has been classified as attainment for PM_{2.5}. On May 8, 2008 U.S. EPA promulgated the requirements for Prevention of Significant Deterioration (PSD) for PM_{2.5} emissions. These rules became effective on July 15, 2008. On May 4, 2011 the air pollution control board issued an emergency rule establishing the direct PM_{2.5} significant level at ten (10) tons per year. This rule became effective, June 28, 2011. 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. See the State Rule Applicability – Entire Source section.
- (c) **Other Criteria Pollutants**
 Lake County has been classified as attainment or unclassifiable in Indiana for all 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 type of operation is not one of the twenty-eight (28) listed source categories under 326 IAC 2-2, 326 IAC 2-3, or 326 IAC 2-7, and there is no applicable New Source Performance Standard that was in effect on August 7, 1980, fugitive emissions are not counted toward the determination of PSD, Emission Offset, and Part 70 Permit applicability.

Source Status

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

Pollutant	Limited Potential to Emit (ton/yr)*
PM	68.3
PM ₁₀	66.5
PM _{2.5}	66.5
SO ₂	0.05
VOC	24.9
CO	6.96
NO _x	8.29
GHGs as CO ₂ e	10,008
HAPs	8.81
Highest Single HAP	6.28 (glycol ethers)

*Note: The limited Potential to Emit included in the table above is before the integral cyclone and 2-stage fabric filter associated with the portable recirculating blaster unit (QUIK-BLAST) and after FESOP, PSD, and/or Emission Offset Minor Limitations.

- (a) This existing source is not a major stationary source, under PSD (326 IAC 2-2), because no regulated pollutant, excluding GHGs, is emitted at a rate of two hundred fifty (250) tons per year or more, emissions of GHGs are less than one hundred thousand (100,000) tons of CO₂ equivalent emissions (CO₂e) per year, and it is not one of the twenty-eight (28) listed source categories, as specified in 326 IAC 2-2-1(ff)(1).
- (b) This existing source is not a major stationary source under Emission Offset (326 IAC 2-3) because no nonattainment regulated pollutant is emitted at a rate of 100 tons per year or more.
- (c) These emissions are based upon the calculations attached as Appendix A to this TSD.

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).

Description of Proposed Revision

The Office of Air Quality (OAQ) has reviewed an application for an administrative amendment, submitted by Progress Rail Services Corporation on June 19, 2013, requesting the following changes to its current FESOP:

- 1. Add an existing Hegenscheidt lathe (identified as Heg-1) to the permit that is similar to the existing Farrell lathe.
- 2. Correct the dates of construction listed in the permit for the Farrell lathe and two Wheel Qualifications Stations to 2003, 1999, and 2003, respectively.
- 3. Create a new Section A.4 of the permit for "Trivial Activities" which would include the following existing permitted units:
 - a. One (1) Farrell lathe, identified as FTL-1;
 - b. Two (2) Wheel Qualification Stations, identified as WQS-1 and WQS-2;
 - c. One (1) portable recirculating blaster unit, identified as QUIK-BLAST;
 - d. One (1) propane tank, identified as Propane; and
 - e. One (1) Booth, identified as TD-101
- 4. Correct the stack designation for Heater 982 to stacks S-11 and S-67.
- 5. Remove the following emission units from the permit:
 - a. Degreaser MPW-1
 - b. Degreaser 1263, exhausting to Stack S-51
- 6. Correct the Emission Unit Description for units for blast unit 617 in D.3 to refer to subparagraph (n), not (m).
- 7. Correct the Emission Unit Description for units 1255 and TOBB in D.5 to refer to subparagraphs (o) and (p), respectively.

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 – FESOP Administrative Amendment

The following table is used to determine the appropriate permit level under 326 IAC 2-8.11.1. This table reflects the PTE before controls of the proposed revision. Control equipment is not considered federally enforceable until it has been required in a federally enforceable permit.

Process/ Emission Unit	PTE of Proposed Revision (tons/year)									
	PM	PM10	PM2.5	SO ₂	NO _x	VOC	CO	GHGs as CO ₂ e	Total HAPs	Worst Single HAP
Hegenscheidt lathe (Heg-1)	0.12	0.12	0.12	-	-	-	-	-	-	-
Degreaser MPW-1	-	-	-	-	-	-1.61	-	-	-	-
Degreaser 1263	-	-	-	-	-	-0.77	-	-	-	-
Total PTE of Proposed Revision	0.12	0.12	0.12	-	-	-2.38	-	-	-	-

Addition of Hegenscheidt lathe (Heg-1)

The Hegenscheidt lathe (Heg-1) to the permit that is similar to the existing Farrell lathe.

Pursuant to 326 IAC 2-8-10(a)(10), this change to the permit is considered an administrative amendment, because the permit is amended to incorporate a modification that adds an emissions unit of the same type that are already permitted and that will comply with the same applicable requirements and permit terms and conditions as the existing emission unit, and the modification would not result in a potential to emit greater than the thresholds in 326 IAC 2-2 (PSD) or 326 IAC 2-3 (Emission Offset).

Other Changes to Descriptive Information

The permit has been revised to correct construction dates, to identify "Trivial Activities", to correct stack designations, to remove emission units, and to correct emission unit description lettering.

Pursuant to 326 IAC 2-8-10(a)(2)(B), these changes to the permit are each considered an administrative amendment, because the permit is amended to change descriptive information concerning the source or an emissions unit, where the revision will not trigger a new application requirement.

Updated Rule Requirements for 326 IAC 8-3 (Organic Solvent Degreasing Operations)

On January 30, 2013, amendments to 326 IAC 8-3 (Organic Solvent Degreasing Operations) were published, effective March 1, 2013. 326 IAC 8-3-2 was revised and 326 IAC 8-3-5 was repealed. The permit has been revised to update the requirements of 326 IAC 8-3-2 and remove the requirements of 326 IAC 8-3-5.

Pursuant to 326 IAC 2-8-10(a)(6)(D), this change to the permit is considered an administrative amendment because the permit is amended to incorporate or delete applicable requirements as a result of a change in applicability.

Federal Rule Applicability Determination

The following federal rules are applicable to the source due to this modification:

NSPS:

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

NESHAP:

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

State Rule Applicability Determination

The following state rules are applicable to the source due to the modification:

326 IAC 2-1.1-5 (Nonattainment New Source Review)

Nonattainment New Source Review applicability is discussed under the Permit Level Determination – PSD and Emission Offset section.

326 IAC 2-2 and 2-3 (PSD and Emission Offset)

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

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

The operation of the Hegenscheidt lathe will emit less than ten (10) tons per year for a single HAP and less than twenty-five (25) tons per year for a combination of HAPs. Therefore, 326 IAC 2-4.1 does not apply.

326 IAC 2-6 (Emission Reporting)

This source is located in Lake County and the potential to emit of each criteria pollutant is less than one hundred (100) tons per year. VOC and NOx are limited to less than twenty-five (25) tons per year. Therefore, 326 IAC 2-6 does not apply.

326 IAC 6.8-1-2 (PM Emission Limits)

Pursuant to the requirements of 326 IAC 6.8-1-2(a) Particulate Matter Limitations for Lake County), PM emissions from the Hegenscheidt lathe shall not exceed 0.03 grain per dry standard cubic foot (dscf).

326 IAC 8-3 (Organic Solvent Degreasing Operations)

On January 30, 2013, amendments to 326 IAC 8-3 (Organic Solvent Degreasing Operations) were published, effective March 1, 2013. 326 IAC 8-3-2 was revised and 326 IAC 8-3-5 was repealed. The permit has been revised to update the requirements of 326 IAC 8-3-2 and remove the requirements of 326 IAC 8-3-5.

Proposed Changes

The changes listed below have been made to FESOP No. 089-27298-00381. Deleted language appears as ~~strikethroughs~~ and new language appears in **bold**:

A.2 Emission Units and Pollution Control Equipment Summary [326 IAC 2-8-3(c)(3)]

...

- ~~(f) One (1) cold cleaner degreasing operation, constructed in 1988, identified as MPW-1 (exhausting inside) which uses an organic cleaning solvent. This unit is not equipped with a solvent heater.~~
- (gf)** One (1) cold cleaner degreasing operation, approved for construction in 2011, identified as SML-1 (exhausting inside) which uses an aqueous cleaning solvent. This unit is not equipped with a solvent heater.
- (hg)** One (1) degreaser for truck service/repair operation, identified as 865A, exhausting indoors, constructed in 2007, using an organic cleaning solvent, with a maximum capacity of 260 gallons.
- (ih)** Cold cleaner degreasing operations using heated organic or non-organic cleaners, consisting of ~~four (4)~~ **three (3)** units constructed in 1988, identified as 1218 (stack ID # S-22), 1219 (stack ID # S-19), ~~4263 (stack ID # S-51),~~ and A378 (stack ID # S-52).
- (ji)** One (1) conveyorized degreasing operation using a heated organic or non-organic alkaline solution, identified as 765, constructed in 1988 (stack ID # S-3).
- (kj)** Cold cleaner degreasing operations using heated organic or non-organic cleaners, including an alkaline solution or hot water, consisting of one(1) unit constructed in 1988, identified as 982 (stack ID # S-10) .
- (hk)** One (1) heated organic or non-organic solvent degreasing unit, identified as A574, approved for construction in 2013, equipped with two (2) natural gas fired heaters, with heat input capacities each of 0.8 MMBtu/hr, the heaters will exhaust to stacks S-59 and S-65, respectively, and A574 will exhaust to stack S-60.
- (ml)** One (1) aqueous washer using heated organic or non-organic cleaners, identified as FAW, constructed in 2007, and exhausting inside the building.
- (nm)** One (1) mechanical blasting unit, identified as 617, constructed in 2006, with a maximum capacity of 8000 pounds of steel parts per hour, utilizing one (1) baghouse for particulate matter control, and exhausting to stack S-9.
- (on)** One (1) rotoblaster for truck service/repair operation, identified as Unit 1255, constructed in 2007, controlled by a baghouse, and exhausting to stack S-44.
- (po)** One (1) grit blast booth for truck service/repair operation, identified as TOBB, constructed in 2007, with a maximum blast rate of 750 pounds of black beauty or aluminum white oxide per hour, controlled by a baghouse, and exhausting to stack S-45.
- ~~(q) One (1) portable recirculating blaster unit, identified as QUIK-BLAST, approved for construction in 2011, with a maximum blast rate of 137.1 pounds per hour, controlled by a 2-stage filter, exhausting indoors.~~

A.3 Insignificant Activities [326 IAC 2-7-1(21)][326 IAC 2-8-3(c)(3)(I)]

- ...
- (k) One (1) natural gas-fired solution heater, identified as Solution Heater 982, with a maximum heat input rate of 1.6 MMBtu/hr, and exhausting to one (1) stack, identified as S-11 **and S-67**.
- ...
- ~~(n) One (1) propane tank, identified as Propane, with a maximum tank capacity of 1,000 gallons.~~
- (en) The following equipment related to manufacturing activities not resulting in the emission of HAPs: brazing equipment, cutting torches, soldering equipment, welding equipment. [326 IAC 6.8-1-2]
- ...
- ~~(po)~~ One (1) Vacuum Process Impregnation (VPI) system, constructed in 2007, including a vacuum chamber with a capacity of six (6) locomotive motor armatures, an insulating varnish storage tank with a capacity of 700 gallons, and a wipe cleaning operation which uses a maximum of 0.38 gallon of solvent per day, processing up to twelve (12) armatures per day, and exhausting through stacks S-57 and S-58. [326 IAC 2-8][326 IAC 8-7][326 IAC 8-2-9]
- (ep) Other emission units, not regulated by a NESHAP, with PM10, NOx, and SO₂ emissions less than five (5) pounds per hour or twenty-five (25) pounds per day, CO emissions less than twenty-five (25) pounds per day, VOC emissions less than three (3) pounds per hour or fifteen (15) pounds per day, lead emissions less than six-tenths (0.6) tons per year or three and twenty-nine hundredths (3.29) pounds per day, and emitting greater than one (1) pound per day but less than five (5) pounds per day or one (1) ton per year of a single HAP, or emitting greater than one (1) pound per day but less than twelve and five tenths (12.5) pounds per day or two and five tenths (2.5) tons per year of any combination of HAPs:
- ~~(1) One (1) booth, identified as TD101, constructed in 2007, using hand-operated tools for removal of debris from parts at a maximum capacity of 3 parts per hour, using dry filters for particulate matter control, and exhausting to stack S-54. [326 IAC 6.8-1-2]~~
- (21) One (1) paint booth, identified as TOPB, constructed in 2007, controlled by a dry filter, and exhausting to stack S-43. [326 IAC 2-8][326 IAC 8-7][326 IAC 6.8-1-2][326 IAC 8-2-9]
- (32) One (1) organic or non-organic alkaline aqueous washer, identified as Unit 1239, constructed in 2007, equipped with two (2) 0.8 MMBtu/hr natural gas-fired heaters, and exhausting to stacks S-46 and S-47. [326 IAC 2-8][326 IAC 8-7]
- (43) One (1) alkaline organic or non-organic aqueous washer, identified as Unit 1292, constructed in 2007, equipped with one (1) 2.5 MMBtu/hr natural gas-fired heater, and exhausting to stacks S-48 and S-49. [326 IAC 2-8][326 IAC 8-7]
- (54) One (1) cleaning unit used for the removal of oxidation from copper components, constructed in 2008, identified as A047.
- (fq) One (1) dip tank with cover, identified as AXDT2, constructed in 2008, coating a maximum of 12 metal axles per hour. [326 IAC 2-8][326 IAC 8-2-9]

- (sr) One (1) Traction Motor Drying oven, identified as TMDO, constructed in 2008, electrically heated and venting to stack S-55 to vent water vapor. [326 IAC 2-8][326 IAC 8-7]
- ~~(t) One (1) Wheel Qualification Station, identified as WQS-1, constructed in 2011, using hand operated tools for removal of debris from wheel sets at a maximum capacity of 3 wheel sets per hour, with particulate emissions controlled by a hooded fan, and exhausting to stack S-61. [326 IAC 6.8-1-2]~~
- ~~(u) One (1) Wheel Qualification Station, identified as WQS-2, constructed in 2011, using hand operated tools for removal of debris from wheel sets at a maximum capacity of 3 wheel sets per hour, with particulate emissions controlled by a hooded fan, and exhausting to stack S-62. [326 IAC 6.8-1-2]~~
- ~~(v) One (1) Farrell Turning Lathe, identified as FTL-1, constructed in 2011, for re-profiling/machining of wheel sets at a maximum capacity of 3 wheel sets per hour, with particulate emissions controlled by two (2) hooded fans, and exhausting to stacks S-63 and S-64. [326 IAC 6.8-1-2]~~

A.4 Trivial Activities [326 IAC 2-7-1(42)]

This stationary source also includes the following trivial activities:

- (a) One (1) portable recirculating blaster unit, identified as QUIK-BLAST, approved for construction in 2011, with a maximum blast rate of 137.1 pounds per hour, controlled by a 2-stage filter, exhausting indoors. [326 IAC 6.8-1-2]**
- (b) One (1) Wheel Qualification Station, identified as WQS-1, constructed in 1999, using hand operated tools for removal of debris from wheel sets at a maximum capacity of 3 wheel sets per hour, with particulate emissions controlled by a hooded fan, and exhausting to stack S-61. [326 IAC 6.8-1-2]**
- (c) One (1) Wheel Qualification Station, identified as WQS-2, constructed in 2003, using hand operated tools for removal of debris from wheel sets at a maximum capacity of 3 wheel sets per hour, with particulate emissions controlled by a hooded fan, and exhausting to stack S-62. [326 IAC 6.8-1-2]**
- (d) One (1) Farrell Turning Lathe, identified as FTL-1, constructed in 2003, for re-profiling/machining of wheel sets at a maximum capacity of 3 wheel sets per hour, with particulate emissions controlled by two (2) hooded fans, and exhausting to stacks S-63 and S-64. [326 IAC 6.8-1-2]**
- (e) One (1) Hegenscheidt lathe, identified as Heg-1, constructed in 1999, for reprofiling/machining of wheel sets at a maximum capacity of 3.5 wheel sets per hour, with particulate emissions controlled by a fabric filter, and exhausting to stack S-61. [326 IAC 6.8-1-2]**
- (f) One (1) booth, identified as TD101, constructed in 2007, using hand operated tools for removal of debris from parts at a maximum capacity of 3 parts per hour, using dry filters for particulate matter control, and exhausting to stack S-54. [326 IAC 6.8-1-2]**
- (g) One (1) propane tank, identified as Propane, with a maximum tank capacity of 1,000 gallons.**

A.4 A.5 FESOP Applicability [326 IAC 2-8-2]

...

SECTION D.1 EMISSIONS UNIT OPERATION CONDITIONS - Surface Coating

Emissions Unit Description:

...

The following insignificant activities, as defined in 326 IAC 2-7-1(21):

...

- (po) One (1) Vacuum Process Impregnation (VPI) system, constructed in 2007, including a vacuum chamber with a capacity of six (6) locomotive motor armatures, an insulating varnish storage tank with a capacity of 700 gallons, and a wipe cleaning operation which uses a maximum of 0.38 gallon of solvent per day, processing up to twelve (12) armatures per day, and exhausting through stacks S-57 and S-58. [326 IAC 2-8][326 IAC 8-7]
- (ep) Other emission units, not regulated by a NESHAP, with PM₁₀, NO_x, and SO₂ emissions less than five (5) pounds per hour or twenty-five (25) pounds per day, CO emissions less than twenty-five (25) pounds per day, VOC emissions less than three (3) pounds per hour or fifteen (15) pounds per day, lead emissions less than six-tenths (0.6) tons per year or three and twenty-nine hundredths (3.29) pounds per day, and emitting greater than one (1) pound per day but less than five (5) pounds per day or one (1) ton per year of a single HAP, or emitting greater than one (1) pound per day but less than twelve and five tenths (12.5) pounds per day or two and five tenths (2.5) tons per year of any combination of HAPs:
 - (21) One (1) paint booth, identified as TOPB, constructed in 2007, controlled by a dry filter, and exhausting to stack S-43. [326 IAC 2-8][326 IAC 8-7][326 IAC 6.8-1-2][326 IAC 8-2-9]
- (fq) One (1) dip tank with cover, identified as AXDT2, constructed in 2008, coating a maximum of 12 metal axles per hour. [326 IAC 2-8][326 IAC 8-2-9]
- (sr) One (1) Traction Motor Drying oven, identified as TMDO, constructed in 2008, electrically heated and venting to stack S-55 to vent water vapor. [326 IAC 2-8][326 IAC 8-7]

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

...

D.1.1 Volatile Organic Compounds (VOC) [326 IAC 8-2-9]

- (a) The volatile organic compound (VOC) content of the coating delivered to the applicator at the ~~four (4)~~ **three (3)** surface coating spray booths (1213, 1221, and BPB-1), paint booth TOPB, dip tanks AXDT and AXDT2, and Vacuum Process Impregnation (VPI) system shall be limited to 3.5 pounds of VOCs per gallon of coating less water, for forced warm air dried coatings, and 4.3 pounds of VOCs per gallon of coating less water, for clear coatings.

...

D.1.2 Emission Offset Minor Limit [326 IAC 2-8][326 IAC 8-7]

Pursuant to 326 IAC 2-8-4 (FESOP) and in order to render the requirements of 326 IAC 2-7 (Part 70) not applicable, the total usage of VOCs, including coatings, dilution solvents, and cleaning solvents, in the surface coating spray booths 1213, 1221, TD102 and BPB-1, dip tank AXDT, Vacuum Process Impregnation (VPI) System, paint booth TOPB, dip tank AXDT2, drying oven A425, Traction Motor Drying oven TMDO, combined with the degreasing operations MPW-1, SML-1, 865A, 1218, 1219, ~~4263~~, A378, 765, 982, and A534, and aqueous washers FAW, 1239, and 1292, shall be limited to less than 24.49 tons per twelve (12) consecutive month period with compliance demonstrated at the end of each month.

...

SECTION D.2 EMISSIONS UNIT OPERATION CONDITIONS - Degreasing Operations

Emissions Unit Description:

- ~~(f)~~ One (1) cold cleaner degreasing operation, constructed in 1988, identified as MPW-1 (exhausting inside) which uses an organic cleaning solvent. This unit is not equipped with a solvent heater.
- (gf) One (1) cold cleaner degreasing operation, approved for construction in 2011, identified as SML-1 (exhausting inside) which uses an aqueous cleaning solvent. This unit is not equipped with a solvent heater.
- (hg) One (1) degreaser for truck service/repair operation, identified as 865A, exhausting indoors, constructed in 2007, using an organic cleaning solvent, with a maximum capacity of 260 gallons.
- (ih) Cold cleaner degreasing operations using heated organic or non-organic cleaners, consisting of ~~four (4)~~ **three (3)** units constructed in 1988, identified as 1218 (stack ID # S-22), 1219 (stack ID # S-19), ~~1263 (stack ID # S-51)~~, and A378 (stack ID # S-52).
- (ji) One (1) conveyORIZED degreasing operation using a heated organic or non-organic alkaline solution, identified as 765, constructed in 1988 (stack ID # S-3).
- (kj) Cold cleaner degreasing operations using heated organic or non-organic cleaners, including an alkaline solution or hot water, consisting of one(1) unit constructed in 1988, identified as 982 (stack ID # S-10) .
- (lk) One (1) heated organic or non-organic solvent degreasing unit, identified as A574, approved for construction in 2013, equipped with two (2) natural gas fired heaters, with heat input capacities each of 0.8 MMBtu/hr, the heaters will exhaust to stacks S-59 and S-65, respectively, and A574 will exhaust to stack S-60.
- (ml) One (1) aqueous washer using heated organic or non-organic cleaners, identified as FAW, constructed in 2007, and exhausting inside the building.

The following insignificant activities, as defined in 326 IAC 2-7-1(21):

- (qp) Other emission units, not regulated by a NESHAP, with PM10, NO_x, and SO₂ emissions less than five (5) pounds per hour or twenty-five (25) pounds per day, CO emissions less than twenty-five (25) pounds per day, VOC emissions less than three (3) pounds per hour or fifteen (15) pounds per day, lead emissions less than six-tenths (0.6) tons per year or three and twenty-nine hundredths (3.29) pounds per day, and emitting greater than one (1) pound per day but less than five (5) pounds per day or one (1) ton per year of a single HAP, or emitting greater than one (1) pound per day but less than twelve and five tenths (12.5) pounds per day or two and five tenths (2.5) tons per year of any combination of HAPs:
 - ~~(32)~~ One (1) organic or non-organic alkaline aqueous washer, identified as Unit 1239, constructed in 2007, equipped with two (2) 0.8 MMBtu/hr natural gas-fired heaters, and exhausting to stacks S-46 and S-47. [326 IAC 2-8][326 IAC 8-7]
 - (43) One (1) alkaline organic or non-organic aqueous washer, identified as Unit 1292, constructed in 2007, equipped with one (1) 2.5 MMBtu/hr natural gas-fired heater, and exhausting to stacks S-48 and S-49. [326 IAC 2-8][326 IAC 8-7]

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

D.2.1 Emission Offset Minor Limit [326 IAC 2-8][326 IAC 8-7]

Pursuant to 326 IAC 2-8-4 (FESOP) and in order to render the requirements of 326 IAC 2-7 (Part 70) not applicable, the total usage of VOCs, including coatings, dilution solvents, and cleaning solvents, in the surface coating spray booths 1213, 1221, TD102 and BPB-1, dip tank AXDT, Vacuum Process Impregnation (VPI) System, paint booth TOPB, dip tank AXDT2, drying oven A425, Traction Motor Drying oven TMDO, combined with the degreasing operations MPW-1, SML-1, 865A, 1218, 1219, 4263, A378, 765, 982, and A534, and aqueous washers FAW, 1239, and 1292, shall be limited to less than 24.49 tons per twelve (12) consecutive month period with compliance demonstrated at the end of each month.

...

D.2.2 Volatile Organic Compounds (VOC) [326 IAC 8-3-2]

~~Pursuant to 326 IAC 8-3-2 (Cold Cleaner Operations), for each of the cold cleaner degreasing units MPW-1 and 865A, the Permittee shall:~~

- ~~(a) Equip the cleaner with a cover;~~
- ~~(b) Equip the cleaner with a facility for draining cleaned parts;~~
- ~~(c) Close the degreaser cover whenever parts are not being handled in the cleaner;~~
- ~~(d) Drain cleaned parts for at least fifteen (15) seconds or until dripping ceases;~~
- ~~(e) Provide a permanent, conspicuous label summarizing the operation requirements; and~~
- ~~(f) Store waste solvent only in covered containers and not dispose of waste solvent or transfer it to another party, in such a manner that greater than twenty percent (20%) of the waste solvent (by weight) can evaporate into the atmosphere.~~

Pursuant to 326 IAC 8-3-2 (Cold Cleaner Degreaser Control Equipment and Operating Requirements), for cold cleaner degreasing unit 865A, the Permittee shall comply with the following:

- (a) The Permittee shall ensure the following control equipment and operating requirements are met:**
 - (1) Equip the degreaser with a cover.**
 - (2) Equip the degreaser with a device for draining cleaned parts.**
 - (3) Close the degreaser cover whenever parts are not being handled in the degreaser.**
 - (4) Drain cleaned parts for at least fifteen (15) seconds or until dripping ceases.**
 - (5) Provide a permanent, conspicuous label that lists the operating requirements in (a)(3), (a)(4), (a)(6), and (a)(7) of this condition.**
 - (6) Store waste solvent only in closed containers.**
 - (7) Prohibit the disposal or transfer of waste solvent in such a manner that greater than twenty percent (20%) of the waste solvent (by weight) to evaporate into the atmosphere.**
- (b) The Permittee shall ensure the following additional control equipment and operating requirements are met:**

- (1) Equip the degreaser with one (1) of the following control devices if the solvent is heated to a temperature of greater than forty-eight and nine-tenths (48.9) degrees Celsius (one hundred twenty (120) degrees Fahrenheit):
 - (A) A freeboard that attains a freeboard ratio of seventy-five hundredths (0.75) or greater.
 - (B) A water cover when solvent used is insoluble in, and heavier than, water.
 - (C) A refrigerated chiller.
 - (D) Carbon adsorption.
 - (E) An alternative system of demonstrated equivalent or better control as those outlined in (b)(1)(A) through (D) of this condition that is approved by the department. An alternative system shall be submitted to the U.S. EPA as a SIP revision.
- (2) Ensure the degreaser cover is designed so that it can be easily operated with one (1) hand if the solvent is agitated or heated.
- (3) If used, solvent spray:
 - (A) must be a solid, fluid stream; and
 - (B) shall be applied at a pressure that does not cause excessive splashing.

...

~~D.2.3 Volatile Organic Compounds (VOC) [326 IAC 8-3-5]~~

~~(a) Pursuant to 326 IAC 8-3-5(a) (Cold Cleaner Degreaser Operation and Control), for each of the cold cleaner degreaser operations MPW 1 and 865A, the Permittee shall ensure that the following control equipment requirements are met:~~

- ~~(1) Equip the degreaser with a cover. The cover must be designed so that it can be easily operated with one (1) hand if:~~
 - ~~(A) The solvent volatility is greater than two (2) kiloPascals (fifteen (15) millimeters of mercury or three tenths (0.3) pounds per square inch measured at thirty-eight degrees Celsius (38°C) (one hundred degrees Fahrenheit (100°F));~~
 - ~~(B) The solvent is agitated; or~~
 - ~~(C) The solvent is heated.~~
- ~~(2) Equip the degreaser with a facility for draining cleaned articles. If the solvent volatility is greater than four and three tenths (4.3) kiloPascals (thirty-two (32) millimeters of mercury) or six tenths (0.6) pounds per square inch measured at thirty-eight degrees Celsius (38°C) (one hundred degrees Fahrenheit (100°F)), then the drainage facility must be internal such that articles are enclosed under~~

~~the cover while draining. The drainage facility may be external for applications where an internal type cannot fit into the cleaning system.~~

- ~~(3) Provide a permanent, conspicuous label which lists the operating requirements outlined in subsection (b).~~
- ~~(4) The solvent spray, if used, must be a solid, fluid stream and shall be applied at a pressure which does not cause excessive splashing.~~
- ~~(5) Equip the degreaser with one (1) of the following control devices if the solvent volatility is greater than four and three tenths (4.3) kiloPascals (thirty two (32) millimeters of mercury) or six tenths (0.6) pounds per square inch measured at thirty eight degrees Celsius (38°C) (one hundred degrees Fahrenheit (100°F)), or if the solvent is heated to a temperature greater than forty eight and nine tenths degrees Celsius (48.9°C) (one hundred twenty degrees Fahrenheit (120°F)):
 - ~~(A) A freeboard that attains a freeboard ratio of seventy five hundredths (0.75) or greater.~~
 - ~~(B) A water cover when solvent is used is insoluble in, and heavier than, water.~~
 - ~~(C) Other systems of demonstrated equivalent control such as a refrigerated chiller or carbon adsorption. Such systems shall be submitted to the U.S. EPA as a SIP revision.~~~~

~~(b) Pursuant to 326 IAC 8-3-5(b) (Cold Cleaner Degreaser Operation and Control), the owner or operator of a cold cleaning facility shall ensure that the following operating requirements are met:~~

- ~~(1) Close the cover whenever articles are not being handled in the degreaser.~~
- ~~(2) Drain cleaned articles for at least fifteen (15) seconds or until dripping ceases.~~
- ~~(3) Store waste solvent only in covered containers and prohibit the disposal or transfer of waste solvent in any manner in which greater than twenty percent (20%) of the waste solvent by weight could evaporate.~~

...

**D.2.43 Volatile Organic Compounds [326 IAC 8-3-2][~~326 IAC 8-3-5~~][326 IAC 8-3-4][~~326 IAC 8-3-7~~]
[326 IAC 8-3-8]**

The actual VOC emissions from the degreasing units SML-1, 1218, 1219, ~~4263~~, A378, 1239, 1292, 982, A534, FAW and 765 shall each be less than 15 lbs/day.

Compliance with this condition shall make the requirements of 326 IAC 8-3-2 (Cold Cleaner Operations), ~~326 IAC 8-3-5 (Cold Cleaner Degreaser Operation and Control)~~, 326 IAC 8-3-4 (Conveyorized Degreaser Operation), and ~~326 IAC 8-3-7 (Conveyorized Degreaser Operation and Control)~~ **326 IAC 8-3-8 (Material Requirements for Cold Cleaning Degreasers)** not applicable to the units listed in this condition.

D.2.54 Volatile Organic Compounds (VOC) [326 IAC 8-3-8]

Pursuant to 326 IAC 8-3-8(~~cb~~)(2) (Material Requirements for Cold Cleaning Degreasers), the Permittee shall not operate the cold cleaner degreaser units ~~MPW-1 and 865A~~ with a solvent **that has a VOC composite partial** vapor pressure that exceeds one (1) millimeter of mercury

(nineteen-thousandths (0.019) pound per square inch) measured at twenty (20) degrees Celsius (sixty-eight (68) degrees Fahrenheit).

D.2.65 Record Keeping Requirements [326 IAC 8-3-8]

- (a) Pursuant to 326 IAC 8-3-8~~(d)(2)~~**(c)(2)**, the Permittee shall maintain each of the following records relating to each purchase of solvent used at the cold cleaner degreasers ~~MPW-1 and 865A~~:
- (1) The name and address of the solvent supplier.
 - (2) The date of purchase **(or invoice/bill date of contract servicer indicating service date)**.
 - (3) The type of solvent **purchased**.
 - ~~(4) The volume of each unit of solvent.~~
 - (5) The total volume of the solvent **purchased**.
 - (6) The true vapor pressure of the solvent measured in millimeters of mercury at twenty (20) degrees Celsius (sixty-eight (68) degrees Fahrenheit).
- (b) Pursuant to 326 IAC 8-3-8~~(d)~~**(e)**, all records required in paragraph (a) shall be retained onsite **or accessible electronically from the site** for the most recent three (3) year period and shall be reasonably accessible for an additional two (2) year period.

...

D.2.76 Record Keeping and Reporting Requirements [326 IAC 8-7]

- (a) Pursuant to 326 IAC 8-7-6, the Permittee shall submit the following certification for the cold cleaner degreasers identified as ~~MPW-1 and 865A~~:

...

D.2.87 Record Keeping Requirements

...

- (b) To document the compliance status with Condition D.2.43, the Permittee shall maintain daily records in accordance with (1) through (3) below for each of the degreasing units (SML-1, 1218, 1219, ~~1263~~, A378, 1239, 1292, 982, A534, FAW and 765) when VOC containing solutions are used in these units. Records maintained for (1) through (3) shall be taken daily and shall be complete and sufficient to establish compliance with the VOC emission limit established in Condition D.2.43. Records necessary to demonstrate compliance shall be available within 30 days of the end of each compliance period.

...

SECTION D.3 EMISSIONS UNIT OPERATION CONDITIONS - Mechanical Blasting Unit

Emissions Unit Description:

- ~~(am)~~ One (1) mechanical blasting unit, identified as 617, constructed in 2006, with a maximum capacity of 8000 pounds of steel parts per hour, utilizing one (1) baghouse for particulate matter control, and exhausting to stack S-9.
- ~~(aq)~~ One (1) portable recirculating blaster unit, identified as QUIK-BLAST, approved for construction in 2011, with a maximum blast rate of 137.1 pounds per hour, controlled by a 2-stage filter, exhausting indoors.

The following insignificant activities as defined in 326 IAC 2-7-1(21)

- (g) ~~Other emission units, not regulated by a NESHAP, with PM₁₀, NO_x, and SO₂ emissions less than five (5) pounds per hour or twenty-five (25) pounds per day, CO emissions less than twenty-five (25) pounds per day, VOC emissions less than three (3) pounds per hour or fifteen (15) pounds per day, lead emissions less than six-tenths (0.6) tons per year or three and twenty-nine hundredths (3.29) pounds per day, and emitting greater than one (1) pound per day but less than five (5) pounds per day or one (1) ton per year of a single HAP, or emitting greater than one (1) pound per day but less than twelve and five tenths (12.5) pounds per day or two and five tenths (2.5) tons per year of any combination of HAPs:
 - (1) ~~One (1) booth, identified as TD101, constructed in 2007, using hand-operated tools for removal of debris from parts at a maximum capacity of 3 parts per hour, using dry filters for particulate matter control, and exhausting to stack S-54. [326 IAC 6.8-1-2]~~~~
- (t) ~~One (1) Wheel Qualification Station, identified as WQS-1, constructed in 2011, using hand operated tools for removal of debris from wheel sets at a maximum capacity of 3 wheel sets per hour, with particulate emissions controlled by a hooded fan, and exhausting to stack S-61. [326 IAC 6.8-1-2]~~
- (u) ~~One (1) Wheel Qualification Station, identified as WQS-2, constructed in 2011, using hand operated tools for removal of debris from wheel sets at a maximum capacity of 3 wheel sets per hour, with particulate emissions controlled by a hooded fan, and exhausting to stack S-62. [326 IAC 6.8-1-2]~~
- (v) ~~One (1) Farrell Turning Lathe, identified as FTL-1, constructed in 2011, for re-profiling/machining of wheel sets at a maximum capacity of 3 wheel sets per hour, with particulate emissions controlled by two (2) hooded fans, and exhausting to stacks S-63 and S-64. [326 IAC 6.8-1-2]~~

The following trivial activities as defined in 326 IAC 2-7-1(42)

- (a) **One (1) portable recirculating blaster unit, identified as QUIK-BLAST, approved for construction in 2011, with a maximum blast rate of 137.1 pounds per hour, controlled by a 2-stage filter, exhausting indoors. [326 IAC 6.8-1-2]**
- (b) **One (1) Wheel Qualification Station, identified as WQS-1, constructed in 1999, using hand operated tools for removal of debris from wheel sets at a maximum capacity of 3 wheel sets per hour, with particulate emissions controlled by a hooded fan, and exhausting to stack S-61. [326 IAC 6.8-1-2]**
- (c) **One (1) Wheel Qualification Station, identified as WQS-2, constructed in 2003, using hand operated tools for removal of debris from wheel sets at a maximum capacity of 3 wheel sets per hour, with particulate emissions controlled by a hooded fan, and exhausting to stack S-62. [326 IAC 6.8-1-2]**
- (d) **One (1) Farrell Turning Lathe, identified as FTL-1, constructed in 2003, for re-profiling/machining of wheel sets at a maximum capacity of 3 wheel sets per hour, with particulate emissions controlled by two (2) hooded fans, and exhausting to stacks S-63 and S-64. [326 IAC 6.8-1-2]**
- (e) **One (1) Hegenscheidt lathe, identified as Heg-1, constructed in 1999, for reprofiling/machining of wheel sets at a maximum capacity of 3.5 wheel sets per hour, with particulate emissions controlled by a fabric filter, and exhausting to stack S-61. [326 IAC 6.8-1-2]**
- (f) **One (1) booth, identified as TD101, constructed in 2007, using hand operated tools for**

removal of debris from parts at a maximum capacity of 3 parts per hour, using dry filters for particulate matter control, and exhausting to stack S-54. [326 IAC 6.8-1-2]

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

...

D.3.1 PM Emission Limits [326 IAC 6.8-1-2]

Pursuant to 326 IAC 6.8-1-2(a) (Particulate Matter Limitations for Lake County), PM emissions from the blasting unit 617, the portable recirculating blaster unit (QUIK-BLAST), booth TD101, each of the wheel qualification stations (WQS-1 and WQS-2), **the Hegenscheidt lathe (Heg-1)**, and the Farrell turning lathe (FTL-1) shall not exceed seven-hundredths (0.07) gram per dry standard cubic meter (g/dscm) (three-hundredths (0.03) grain per dry standard cubic foot (dscf).

...

D.3.3 Preventive Maintenance Plan [326 IAC 2-8-4(9)]

A Preventive Maintenance Plan is required for mechanical blaster 617, the portable recirculating blaster unit (QUIK-BLAST), booth TD101, each of the wheel qualification stations (WQS-1 and WQS-2), **the Hegenscheidt lathe (Heg-1)**, and the Farrell turning lathe (FTL-1), and any associated control devices. Section B - Preventive Maintenance Plan contains the Permittee's obligation with regard to the preventive maintenance plan required by this condition.

...

SECTION D.4 EMISSIONS UNIT OPERATION CONDITIONS - Welding Operations

Emissions Unit Description:

The following insignificant activities, as defined in 326 IAC 2-7-1(21):

- (en) The following equipment related to manufacturing activities not resulting in the emission of HAPs: brazing equipment, cutting torches, soldering equipment, welding equipment. [326 IAC 6.8-1-2]

...

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

...

SECTION D.5 EMISSIONS UNIT OPERATION CONDITIONS - Blasting Operations

Emissions Unit Description:

- (en) One (1) rotoblaster for truck service/repair operation, identified as Unit 1255, constructed in 2007, controlled by a baghouse, and exhausting to stack S-44.
- (po) One (1) grit blast booth for truck service/repair operation, identified as TOBB, constructed in 2007, with a maximum blast rate of 750 pounds of black beauty or aluminum white oxide per hour, controlled by a baghouse, and exhausting to stack S-45.

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

...

FESOP Quarterly Report

...
Facility: Surface coating spray booths 1213, 1221, TD102 and BPB-1, dip tank AXDT, Vacuum Process Impregnation (VPI) System, paint booth TOPB, dip tank AXDT2, drying oven A425, Traction Motor Drying oven TMDO, combined with the degreasing operations ~~MPW-1~~, SML-1, 865A, 1218, 1219, ~~4263~~, A378, 765, 982, and A534, and aqueous washers FAW, 1239, and 1292.
...

Conclusion and Recommendation

The construction of this proposed modification shall be subject to the conditions of the attached proposed Federally Enforceable State Operating Permit (FESOP) Administrative Amendment No. 089-33322-00381. The staff recommends to the Commissioner that this FESOP Administrative Amendment be approved.

IDEM Contact

- (a) Questions regarding this proposed permit can be directed to Adam Wheat 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) (233-8397) or toll free at 1-800-451-6027 extension (3-8397).
- (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's Guide for Citizen Participation and Permit Guide on the Internet at: www.idem.in.gov

TSD Appendix A: Emission Calculations
Emissions Summary

TSD App A, Page 1 of 19

Company Name: Progress Rail Services Corporation
Source Address: 175 West Chicago Avenue, East Chicago, IN 46312
Permit Number: F089-27298-00381
Administrative Amendment No.: 089-33322-00381
Reviewer: Adam Wheat

Uncontrolled/Unlimited Potential to Emit (tons/year) for Prevention of Significant Deterioration (PSD) Applicability Determination*

Emissions Unit	PM	PM10	PM2.5	SO ₂	NO _x	VOC	CO	GHGs as		Total HAPs	Single HAP
								CO ₂ e	HAPs		
Spray Booth 1213	3.66	3.66	3.66	0.0	0.0	7.16	0.0	0.0	1.10	1.10	(glycol ethers)
Spray Booth 1221	3.21	3.21	3.21	0.0	0.0	6.03	0.0	0.0	4.22	4.22	(glycol ethers)
Spray Booth BPB-1	0.26	0.26	0.26	0.0	0.0	0.83	0.0	0.0	0.51	0.21	(glycol ethers)
AXDT and AXDT2	negl.	negl.	negl.	0.0	0.0	33.1	0.0	0.0	1.51	1.51	(ethylene glycol)
Degreasing Operations	0.0	0.0	0.0	0.0	0.0	5.16	0.0	0.0	0.00	0.00	
VPI Surface Coating	negl.	negl.	negl.	0.0	0.0	1.61	0.0	0.0	negl.	negl.	
Paint Booth TD102	0.26	0.26	0.26	0.0	0.0	0.83	0.0	0.0	0.51	0.21	(glycol ethers)
Paint Booth TOPB	0.46	0.46	0.46	0.0	0.0	2.55	0.0	0.0	0.77	0.53	(glycol ethers)
Mechanical Blaster 617	140.2	120.5	120.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Rotoblast Unit 1255	17.52	17.52	17.52	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Grit Blasting Unit TOBB	32.85	23.00	23.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Natural Gas Combustion	0.16	0.63	0.63	0.05	8.29	0.46	6.96	10008	0.16	0.15	(hexane)
Welding Operations	1.97	1.97	1.97	0.0	0.0	0.0	0.0	0.0	0.03	0.03	(manganese)
Portable Recirculating Blaster Unit (QUIK-BLAST)* Booth TD101	6.00	4.20	4.20	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Wheel Qualification Stations WQS1 and WQS2	3.29	3.29	3.29	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Farrell Turning Lathe	6.57	6.57	6.57	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Hegenschmidt Lathe	0.12	0.12	0.12	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Unpaved Roads (fugitive)	0.83	0.16	0.16	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total	217.2	186.0	186.0	0.05	8.29	57.8	6.96	10008	8.81	6.28	(glycol ethers)

*IDEM, OAQ has determined that the cyclone and 2-stage fabric filter are each considered an integral part of the Quik-Blast unit. Therefore, the permitting level will be determined using the potential to emit after the cyclone and 2-stage fabric filter. However, for purposes of determining the applicability of Prevention of Significant Deterioration (PSD), potential particulate matter emissions from the Quik-Blast unit were calculated before the cyclone and 2-stage fabric filter.

Unlimited Potential to Emit (tons/year) (After Integral Controls) for Permit Level (FESOP) Determination*

Emissions Unit	PM	PM10	PM2.5	SO ₂	NO _x	VOC	CO	GHGs as		Total HAPs	Single HAP
								CO ₂ e	HAPs		
Spray Booth 1213	3.66	3.66	3.66	0.0	0.0	7.16	0.0	0.0	1.10	1.10	(glycol ethers)
Spray Booth 1221	3.21	3.21	3.21	0.0	0.0	6.03	0.0	0.0	4.22	4.22	(glycol ethers)
Spray Booth BPB-1	0.26	0.26	0.26	0.0	0.0	0.83	0.0	0.0	0.51	0.21	(glycol ethers)
AXDT and AXDT2	negl.	negl.	negl.	0.0	0.0	33.1	0.0	0.0	1.51	1.51	(ethylene glycol)
Degreasing Operations	0.0	0.0	0.0	0.0	0.0	5.16	0.0	0.0	0.00	0.00	
VPI Surface Coating	negl.	negl.	negl.	0.0	0.0	1.61	0.0	0.0	negl.	negl.	
Paint Booth TD102	0.26	0.26	0.26	0.0	0.0	0.83	0.0	0.0	0.51	0.21	(glycol ethers)
Paint Booth TOPB	0.46	0.46	0.46	0.0	0.0	2.55	0.0	0.0	0.77	0.53	(glycol ethers)
Mechanical Blaster 617	140.2	120.5	120.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Rotoblast Unit 1255	17.52	17.52	17.52	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Grit Blasting Unit TOBB	32.85	23.00	23.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Natural Gas Combustion	0.16	0.63	0.63	0.05	8.29	0.46	6.96	10008	0.16	0.15	(hexane)
Welding Operations	1.97	1.97	1.97	0.0	0.0	0.0	0.0	0.0	0.03	0.03	(manganese)
Portable Recirculating Blaster Unit (QUIK-BLAST)* Booth TD101	6.00	4.20	4.20	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Wheel Qualification Stations WQS1 and WQS2	3.29	3.29	3.29	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Farrell Turning Lathe	6.57	6.57	6.57	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Hegenschmidt Lathe	0.12	0.12	0.12	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Unpaved Roads (fugitive)	0.83	0.16	0.16	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total	211.3	181.8	181.8	0.05	8.29	57.8	6.96	10008	8.81	6.28	(glycol ethers)

*IDEM, OAQ has determined that the cyclone and 2-stage fabric filter are each considered an integral part of the Quik-Blast unit. Therefore, the permitting level will be determined using the potential to emit after the cyclone and 2-stage fabric filter. However, for purposes of determining the applicability of Prevention of Significant Deterioration (PSD), potential particulate matter emissions from the Quik-Blast unit were calculated before the cyclone and 2-stage fabric filter.

Limited Potential to Emit (tons/year) (Based on FESOP, PSD, and/or Emission Offset Minor Limitations)

Emissions Unit	PM	PM10	PM2.5	SO ₂	NO _x	VOC	CO	GHGs as		Total HAPs	Single HAP	
								CO ₂ e	HAPs			
Spray Booth 1213	3.66	3.66	3.66	0.0	0.0	Less Than 24.49	0.0	0.0	1.10	1.10	(glycol ethers)	
Spray Booth 1221	3.21	3.21	3.21	0.0	0.0		0.0	0.0	4.22	4.22	(glycol ethers)	
Spray Booth BPB-1	0.26	0.26	0.26	0.0	0.0		0.0	0.0	0.51	0.21	(glycol ethers)	
AXDT and AXDT2	negl.	negl.	negl.	0.0	0.0		0.0	0.0	1.51	1.51	(ethylene glycol)	
Degreasing Operations	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.00	0.00		
VPI Surface Coating	negl.	negl.	negl.	0.0	0.0		0.0	0.0	negl.	negl.		
Paint Booth TD102	0.26	0.26	0.26	0.0	0.0		0.0	0.0	0.51	0.21	(glycol ethers)	
Paint Booth TOPB	0.46	0.46	0.46	0.0	0.0		0.0	0.0	0.77	0.53	(glycol ethers)	
Mechanical Blaster 617	40.1	40.1	40.1	0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Rotoblast Unit 1255	0.18	0.18	0.18	0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Grit Blasting Unit TOBB	0.26	0.26	0.26	0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Natural Gas Combustion	0.16	0.63	0.63	0.05	8.29		0.46	6.96	10008	0.16	0.15	(hexane)
Welding Operations	1.97	1.97	1.97	0.0	0.0	0.0	0.0	0.0	0.03	0.03	(manganese)	
Portable Recirculating Blaster Unit (QUIK-BLAST) Booth TD101	6.00	4.20	4.20	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
Wheel Qualification Stations WQS1 and WQS2	3.29	3.29	3.29	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
Farrell Turning Lathe	6.57	6.57	6.57	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
Hegenschmidt Lathe	0.12	0.12	0.12	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
Unpaved Roads (fugitive)	0.83	0.16	0.16	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
Total	67.2	65.4	65.4	0.05	8.29	24.5	6.96	10008	8.81	6.28	(glycol ethers)	

Controlled/Limited Potential to Emit (tons/year)

Emissions Unit	PM	PM10	PM2.5	SO ₂	NO _x	VOC	CO	GHGs as		Total HAPs	Single HAP	
								CO ₂ e	HAPs			
Spray Booth 1213	3.66	3.66	3.66	0.0	0.0	Less Than 24.49	0.0	0.0	1.10	1.10	(glycol ethers)	
Spray Booth 1221	0.80	0.80	0.80	0.0	0.0		0.0	0.0	4.22	4.22	(glycol ethers)	
Spray Booth BPB-1	0.07	0.07	0.07	0.0	0.0		0.0	0.0	0.51	0.21	(glycol ethers)	
AXDT and AXDT2	negl.	negl.	negl.	0.0	0.0		0.0	0.0	1.51	1.51	(ethylene glycol)	
Degreasing Operations	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.00	0.00		
VPI Surface Coating	negl.	negl.	negl.	0.0	0.0		0.0	0.0	negl.	negl.		
Paint Booth TD102	0.07	0.07	0.07	0.0	0.0		0.0	0.0	0.51	0.21	(glycol ethers)	
Paint Booth TOPB	0.009	0.009	0.009	0.0	0.0		0.0	0.0	0.77	0.53	(glycol ethers)	
Mechanical Blaster 617	0.70	0.60	0.60	0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Rotoblast Unit 1255	0.18	0.18	0.18	0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Grit Blasting Unit TOBB	0.33	0.23	0.23	0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Natural Gas Combustion	0.16	0.63	0.63	0.05	8.29		0.46	6.96	10,008	0.16	0.15	(hexane)
Welding Operations	1.97	1.97	1.97	0.0	0.0	0.0	0.0	0.0	0.03	0.03	(manganese)	
Portable Recirculating Blaster Unit (QUIK-BLAST) Booth TD101	0.06	0.04	0.04	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
Wheel Qualification Stations WQS1 and WQS2	3.29	3.29	3.29	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
Farrell Turning Lathe	6.57	6.57	6.57	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
Hegenschmidt Lathe	0.12	0.12	0.12	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
Unpaved Roads (fugitive)	0.63	0.16	0.16	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
Total	18.7	18.5	18.5	0.05	8.29	24.9	6.96	10,008	8.81	6.28	(glycol ethers)	

TSD Appendix A: Emission Calculations
 VOC, Particulate, and Hazardous Air Pollutants (HAPs)
 Spray Booth 1213

Company Name: Progress Rail Services Corporation
 Source Address: 175 West Chicago Avenue, East Chicago, IN 46312
 Permit Number: F089-27298-00381
 Administrative Amendment No.: 089-33322-00381
 Reviewer: Adam Wheat

PTE of PM/PM10/PM2.5 and VOC

Unit ID	Material	Density (lb/gal)	Weight % Volatile (H2O & Organics)	Weight % Water + Non-VOC	Weight % VOC	Volume % Water + Non-VOC	Volume % Solids	Maximum Usage (gal/unit)	Maximum Throughput (unit/hour)	Maximum Throughput (unit/day)	Maximum Usage (gal/day)	Type of Part Coated	Pounds VOC per gallon of coating less water	VOC Content (lbs/gal)	PTE of VOC (lbs/hour)	PTE of VOC (lbs/day)	PTE of VOC (tons/yr)	PTE of PM/PM10/PM2.5 Before Control (tons/yr)	PTE of PM/PM10/PM2.5 After Control (tons/yr)	lb VOC/gal solids	Transfer Efficiency	Particulate Control Efficiency			
1213	Tectyl 506 EH-WD	7.5	42.00%	0.0%	42.0%	0.0%	52.00%	0.040	12.0	288	11.5	axles	3.15	3.15	1.51	36.29	6.62	3.65	0.91	6.06	60%	75%			
	NOx Rust X128 Clear	7.4	46.00%	0.0%	46.0%	0.0%	49.00%	0.040	12.0	288	11.5	axles	3.40	3.40	1.63	39.21	7.16	3.36	0.84	6.95	60%	75%			
Worst Case PTE															1.63	39.21	7.16	3.66	0.91						

PTE of Hazardous Air Pollutants (HAPs)

Unit ID	Material	Density (lb/gal)	Maximum Usage (gal/unit)	Maximum Throughput (unit/hour)	Weight % Glycol Ethers	PTE of Glycol Ethers (tons/yr)
1213	Tectyl 506 EH-WD	7.5	0.04	12	7.00%	1.10
	NOx Rust X128 Clear	7.4	0.04	12	0.00%	0.00
Worst Case PTE						1.10

Methodology

Maximum Throughput (unit/day) = Maximum Throughput (unit/hour) * [24 hours/day]
 Maximum Usage (gal/day) = [Maximum Usage (gal/unit)] * [Maximum Throughput (unit/day)]
 Pounds of VOC per Gallon Coating less Water = [Density (lb/gal)] * [Weight % VOC] / [1 - Volume % water]
 VOC Content (lbs/gal) = [Density (lb/gal)] * [Weight % VOC]
 PTE of VOC (lbs/day) = [VOC Content (lbs/gal)] * [Maximum Throughput (units/day)] * [Maximum Usage (gal/unit)]
 PTE of VOC (tons/year) = [PTE of VOC (lbs/day)] * [365 days/yr] / [ton/2000 lbs]
 PTE of PM/PM10/PM2.5 (before control) (tons/yr) = [Coating Solid Content (lbs/gal)] * [Maximum Throughput (units/day)] * [Maximum Usage (gal/unit)] * [365 days/yr] / [ton/2000 lbs] * [1 - Transfer Efficiency]
 PTE of PM/PM10/PM2.5 (after control) (tons/yr) = [PTE of PM/PM10/PM2.5 (before control) (tons/yr)] * [1 - Control Efficiency]
 PTE of HAP (tons/yr) = [Density (lb/gal)] * [Maximum Throughput (units/day)] * [Maximum Usage (gal/unit)] * [Weight % HAP] * [365 days/yr] / [ton/2000 lbs]

TSD Appendix A: Emission Calculations
VOC and Particulate
Spray Booth 1221

Company Name: Progress Rail Services Corporation
Source Address: 176 West Chicago Avenue, East Chicago, IN 46312
Permit Number: F089-27298-00381
Administrative Amendment No.: 089-33322-00381
Reviewer: Adam Wheat

PTE of PM/PM10/PM2.5 and VOC

Coating Scenario	Material	Density (lb/gal)	Weight % Volatile (H2O & Organics)	Weight % Water + Non-VOC	Weight % VOC	Volume % Water + Non-VOC	Volume % Solids	Maximum Usage (gal/unit)	Maximum Throughput (unit/hour)	Maximum Throughput (unit/day)	Maximum Usage (gal/day)	Type of Part Coated	Pounds VOC per gallon of coating less water	VOC Content (lb/gal)	PTE of VOC (lbs/hour)	PTE of VOC (lbs/day)	PTE of VOC (tons/yr)	PTE of PM/PM10/PM2.5 Before Control (tons/yr)	PTE of PM/PM10/PM2.5 After Control (tons/yr)	lb VOC/gal solids	Transfer Efficiency	Particulate Control Efficiency
1	Black Paint - Devflex 4216-9990	8.6	71.53%	50.1%	21.4%	45.0%	32.15%	0.25	3.0	72.0	18.0	steel housings	3.34	1.84	1.38	33.06	8.03	3.21	0.80	5.71	60%	75%
2	5216 Heat Resistant Aluminum EN (Low VOC) (4 parts)	8.03	73.97%	44.46%	29.51%	46.0%	20.30%	0.028	1.0	24.0	0.68	motor exhaust ducts										
	Thinner (xylene/ethyl benzene) (1 part)	7.24	100.0%	0.0%	100.0%	0.0%	0.0%	0.007	1.0	24.0	0.17	motor exhaust ducts										
	5216 Heat Resistant Aluminum EN (as applied)	7.87	79.18%	35.57%	43.61%	38.4%	16.24%	0.035	1.0	24.0	0.64	motor exhaust ducts	5.57	3.43	0.12	2.80	0.53	0.10	0.03	21.14	60%	75%
PTE of Worst Case Coating															1.38	33.06	8.03	3.21	0.80			

PTE of Hazardous Air Pollutants (HAPs)

Coating Scenario	Material	Density (lb/gal)	Maximum Usage (gal/unit)	Maximum Throughput (unit/hour)	Weight % Toluene	Weight % Xylene	Weight % Ethyl Benzene	Weight % Glycol Ether	PTE of Toluene (tons/year)	PTE of Xylene (tons/year)	PTE of Ethyl Benzene (tons/year)	PTE of Glycol Ethers (tons/year)	PTE of Total HAPs (tons/year)
1	Black Paint - Devflex 4216-9990	8.57	0.25	3.0	0.0%	0.0%	0.0%	15.0%	0.00	0.00	0.00	4.22	4.22
2	5216 Heat Resistant Aluminum EN (Low VOC) (4 parts)	8.03	0.028	1.0	8.0%	0.0%	0.0%						
	Thinner (xylene/ethyl benzene) (1 part)	7.24	0.007	1.0	0.0%	75.0%	25.0%	0.0%					
	5216 Heat Resistant Aluminum EN (as applied)								0.08	0.17	0.06	0.00	0.30
PTE of Worst Case Coating									0.08	0.17	0.06	4.22	4.22

Methodology

Maximum Throughput (unit/day) = Maximum Throughput (unit/hour) * [24 hours/day]
 Maximum Usage (gal/day) = [Maximum Usage (gal/unit)] * [Maximum Throughput (unit/day)]
 Pounds of VOC per Gallon Coating less Water = [Density (lb/gal)] * [Weight % VOC] / [1 - Volume % water]
 VOC Content (lb/gal) = [Density (lb/gal)] * [Weight % VOC]
 PTE of VOC (lbs/day) = [VOC Content (lb/gal)] * [Maximum Throughput (units/day)] * [Maximum Usage (gal/unit)]
 PTE of VOC (tons/year) = [PTE of VOC (lbs/day)] * [365 days/yr] * [ton/2000 lbs]
 PTE of PM/PM10/PM2.5 (before control) (tons/yr) = [Coating Solid Content (lb/gal)] * [Maximum Throughput (units/day)] * [Maximum Usage (gal/unit)] * [365 days/yr] * [ton/2000 lbs] * [1 - Transfer Efficiency]
 PTE of PM/PM10/PM2.5 (after control) (tons/yr) = [PTE of PM/PM10/PM2.5 (before control) (tons/yr)] * [1 - Control Efficiency]
 PTE of HAP (tons/yr) = [Density (lb/gal)] * [Maximum Throughput (units/day)] * [Maximum Usage (gal/unit)] * [Weight % HAP] * [365 days/yr] * [ton/2000 lbs]

TSD Appendix A: Emission Calculations
VOC and Particulate
Spray Booth BPB-1

Company Name: Progress Rail Services Corporation
Source Address: 175 West Chicago Avenue, East Chicago, IN 46312
Permit Number: F089-27298-00381
Administrative Amendment No.: 089-33322-00381
Reviewer: Adam Wheat

PTE of PM/PM10/PM2.5 and VOC

Unit	Material	Density (lb/gal)	Weight % Volatile (H2O & Organics)	Weight % Water + Non-VOC	Weight % VOC	Volume % Water + Non-VOC	Volume % Solids	Maximum Usage (gal/unit)	Maximum Throughput (unit/hour)	Maximum Throughput (unit/day)	Maximum Usage (gal/day)	Type of Part Coated	Pounds VOC per gallon of coating less water	VOC Content (lbs/gal)	PTE of VOC (lbs/hour)	PTE of VOC (lbs/day)	PTE of VOC (tons/yr)	PTE of PM/PM10/PM2.5 Before Control (tons/yr)	PTE of PM/PM10/PM2.5 After Control (tons/yr)	lb VOC/gal solids	Transfer Efficiency	Particulate Control Efficiency				
BPB-1	6216 Heat Resistant Aluminum EN (Low VOC) (4 parts)	8.03	73.97%	44.48%	29.51%	48.0%	20.30%	0.028	1.00	24.0	0.68	motor exhaust ducts														
	Thinner (xylene/ethyl benzene) (1 part)	7.24	100.0%	0.0%	100.0%	0.0%	0.0%	0.007	1.00	24.0	0.17	motor exhaust ducts														
	Surface Coating (as applied)	7.87	78.18%	35.57%	43.61%	38.4%	18.24%	0.035	1.00	24.0	0.84	motor exhaust ducts	5.57	3.43	0.12	2.90	0.53	0.10	0.03	21.14	60%	75%				
	Black Paint - Devflex 4216-8990	8.57	71.53%	60.10%	21.43%	45.00%	32.16%	0.30	0.13	3.0	0.90	steel housings	3.34	1.84	0.07	1.65	0.30	0.16	0.04	5.71	60%	75%				
Totals															0.19	4.55	0.83	0.26	0.07							

PTE of Hazardous Air Pollutants (HAPs)

Unit	Material	Density (lb/gal)	Maximum Usage (gal/unit)	Maximum Throughput (unit/hour)	Weight % Toluene	Weight % Xylene	Weight % Ethyl Benzene	Weight % Glycol Ether	PTE of Toluene (tons/year)	PTE of Xylene (tons/year)	PTE of Ethyl Benzene (tons/year)	Glycol Ethers (tons/year)			
BPB-1	6216 Heat Resistant Aluminum EN (Low VOC) (4 parts)	8.03	0.028	1.00	8.00%	0.0%	0.0%	0.0%	0.08	0.00	0.00	0.00			
	Thinner (xylene/ethyl benzene) (1 part)	7.24	0.007	1.50	0.0%	75.00%	25.0%	0.0%	0.00	0.17	0.06	0.00			
	Black Paint - Devflex 4216-8990	8.57	0.300	0.43	0.0%	0.0%	0.0%	15.0%	0.00	0.00	0.00	0.21			
	Totals												0.08	0.17	0.06

PTE of Total HAPs (tons/year)

Methodology

Maximum Throughput (unit/day) = Maximum Throughput (unit/hour) * [24 hours/day]
 Maximum Usage (gal/day) = [Maximum Usage (gal/unit)] * [Maximum Throughput (unit/day)]
 Pounds of VOC per Gallon Coating less Water = [Density (lb/gal)] * [Weight % VOC] / [1 - Volume % water]
 VOC Content (lbs/gal) = [Density (lb/gal)] * [Weight % VOC]
 PTE of VOC (lbs/day) = [VOC Content (lbs/gal)] * [Maximum Throughput (units/day)] * [Maximum Usage (gal/unit)]
 PTE of VOC (tons/year) = [PTE of VOC (lbs/day)] * [365 days/yr] * [ton/2000 lbs]
 PTE of PM/PM10/PM2.5 (before control) (tons/yr) = [Coating Solid Content (lbs/gal)] * [Maximum Throughput (units/day)] * [Maximum Usage (gal/unit)] * [365 days/yr] * [ton/2000 lbs] * [1 - Transfer Efficiency]
 PTE of PM/PM10/PM2.5 (after control) (tons/yr) = [PTE of PM/PM10/PM2.5 (before control) (tons/yr)] * [1 - Control Efficiency]
 PTE of HAP (tons/yr) = [Density (lb/gal)] * [Maximum Throughput (units/day)] * [Maximum Usage (gal/unit)] * [Weight % HAP] * [365 days/yr] * [ton/2000 lbs]

**TSD Appendix A: Emission Calculations
VOC and HAPs
From Dip Tanks AXDT and AXDT2**

TSD App A, Page 5 of 19

Company Name: Progress Rail Services Corporation
Source Address: 175 West Chicago Avenue, East Chicago, IN 46312
Permit Number: F089-27298-00381
Administrative Amendment No.: 089-33322-00381
Reviewer: Adam Wheat

AXDT:

Potential VOC Emissions = 12 axles/hr x 8760 hr/year x 0.065 gal/axle x 3.4 lb VOC/gal x 1 ton/2000 lbs =
The Rust Preventative 2323 LV does not contain a significant amount of HAPs.

11.62 tons/year

AXDT2:

Potential VOC Emissions = 12 axles/hr x 8760 hr/year x 0.13 gal/axle x 3.15 lb VOC/gal x 1 ton/2000 lbs =
Potential HAP Emissions (ethylene glycol) = [Potential VOC Emissions (tons/yr)] x 7% glycol ethers =

21.52 tons/year

1.51 tons/year (glycol ethers)

**TSD Appendix A: Emission Calculations
Organic Solvent Degreasing**

Company Name: Progress Rail Services Corporation
Source Address: 175 West Chicago Avenue, East Chicago, IN 46312
Permit Number: F089-27298-00381
Administrative Amendment No.: 089-33322-00381
Reviewer: Adam Wheat

Unit ID	Material	Density (lb/gal)	Weight % VOC	Material Usage (gal/hour)*	Material Usage (gal/day)*	PTE of VOC (lbs/hour)	PTE of VOC (lbs/day)	PTE of VOC (tons/year)
SML-1	AquaWorks MTC	8.30	0.04%	0.01	0.27	4.1E-05	9.9E-04	1.8E-04
865A	Safety-Kleen Premium Solvent	6.80	100.0%	0.044	1.06	0.30	7.22	1.32
1218	Quakerclean 624 CP	8.93	12.21%	0.160	3.85	0.17	4.19	0.77
1219	Quakerclean 624 CP	8.93	12.21%	0.160	3.85	0.17	4.19	0.77
A378	Quakerclean 624 CP	8.93	12.21%	0.160	3.85	0.17	4.19	0.77
765	Quakerclean 624 CP	8.93	12.21%	0.160	3.85	0.17	4.19	0.77
982	Quakerclean 698 LQ	12.58	0%	NA	NA	0.00	0.00	0.00
A534	Quakerclean 698 LQ	12.58	0%	NA	NA	0.00	0.00	0.00
FAW	Water Works Storm	9.17	0.40%	0.127	3.05	0.005	0.11	0.02
1239	Quakerclean 624 CP	8.93	12.21%	0.160	3.85	0.17	4.19	0.77
1292	Renoclean CS 307	10.01	0%	NA	NA	0.00	0.00	0.00
A047	Copper Brite	1.02	0%	NA	NA	0.00	0.00	0.00
Totals						0.30	28.29	5.16

Methodology

*Based on information provided by the source

$$\text{PTE of VOC (lbs/hr)} = [(\text{Density (lb/gal)}) * [\text{Material Usage (gal/hour)}] * [\text{Weight \% VOC}]]$$

$$\text{PTE of VOC (lbs/day)} = [\text{PTE of VOC (lbs/hr)}] * [24 \text{ hours/day}]$$

$$\text{PTE of VOC (tons/year)} = [\text{PTE of VOC (lbs/day)}] * [365 \text{ days/year}] * [\text{ton}/2000 \text{ lbs}]$$

Based on information provided by the source, each of the degreasing materials does not contain hazardous air pollutants (HAPs)

**TSD Appendix A: Emission Calculations
Vacuum Process Impregnation (VPI) System
From Surface Coating Operations**

TSD App A, Page 7 of 19

**Company Name: Progress Rail Services Corporation
Source Address: 175 West Chicago Avenue, East Chicago, IN 46312
Permit Number: F089-27298-00381
Administrative Amendment No.: 089-33322-00381
Reviewer: Adam Wheat**

Vacuum Process Impregnation (VPI) System

PTE of VOC = $(12 \text{ armatures/day} \times 365 \text{ days/year} \times 0.45 \text{ gal/unit} \times 1.4 \text{ lb VOC/gal armature varnish} + 30 \text{ gal monomer/yr} \times 7.47 \text{ lb VOC/gal}) / 2000 \text{ lb/ton}$

PTE of VOC = **1.49 tons/year**

The PTE of HAPs is negligible.

The VPI system, including storage tank, is closed and under vacuum. Hence, there are no emissions during impregnation. The pollutant PTE for the impregnation process occurs during rack removal from the vacuum chamber.

Alkaline-Based Aqueous Wash Station

A 2,000 gallon alkaline-based aqueous wash station precedes the VPI system (existing tank 982). The alkaline solution, which contains a small amount of detergent, is used in a dilute form (1:20).

PTE of VOC = $(0.019 \text{ lb VOC/gal} \times 12,000 \text{ gal/year} \times 1 \text{ ton}/2000 \text{ lb})$

PTE of VOC = **0.114 tons/year**

TSD Appendix A: Emission Calculations
VOC and Particulate

From Insignificant Activities: Paint Booth TD102

Company Name: Progress Rail Services Corporation
Source Address: 175 West Chicago Avenue, East Chicago, IN 46312
Permit Number: F089-27298-00381
Administrative Amendment No.: 089-33322-00381
Reviewer: Adam Wheat

PTE of PM/PM10/PM2.5 and VOC

Unit	Material	Density (lb/gal)	Weight % Volatile (H2O & Organics)	Weight % Water + Non-VOC	Weight % VOC	Volume % Water + Non-VOC	Volume % Solids	Maximum Usage (gal/unit)	Maximum Throughput (unit/hour)	Maximum Throughput (unit/day)	Maximum Usage (gal/day)	Type of Part Coated	Pounds VOC per gallon of coating less water	VOC Content (lbs/gal)	PTE of VOC (lbs/day)	PTE of VOC (tons/yr)	PTE of VOC (tons/yr)	PTE of PM/PM10/PM2.5 Before Control (tons/yr)	PTE of PM/PM10/PM2.5 After Control (tons/yr)	lb VOC/gal solids	Transfer Efficiency	Particulate Control Efficiency		
TD102	5216 Heat Resistant Aluminum EN (Low VOC) (4 parts)	8.03	73.97%	44.46%	29.51%	48.0%	20.30%	0.028	1.00	24.0	0.68	motor exhaust ducts												
	Thinner (xylene/ethyl benzene) (1 part)	7.24	100.0%	0.0%	100.0%	0.0%	0.0%	0.007	1.00	24.0	0.17	motor exhaust ducts												
	Surface Coating (as applied)	7.87	79.18%	35.57%	43.61%	38.4%	16.24%	0.035	1.00	24.0	0.84	motor exhaust ducts	5.57	3.43	0.12	2.90	0.53	0.10	0.03	21.14	80%	75%		
	Black Paint - Devflex 4216-9990	8.57	71.53%	50.10%	21.43%	45.00%	32.15%	0.30	0.13	3.0	0.90	steel housings	3.34	1.84	0.07	1.65	0.30	0.16	0.04	5.71	60%	75%		
													Totals	0.19	4.55	0.83	0.28	0.07						

PTE of Hazardous Air Pollutants (HAPs)

Unit	Material	Density (lb/gal)	Maximum Usage (gal/unit)	Maximum Throughput (unit/hour)	Weight % Toluene	Weight % Xylene	Weight % Ethyl Benzene	Weight % Glycol Ether	PTE of Toluene (tons/year)	PTE of Xylene (tons/year)	PTE of Ethyl Benzene (tons/year)	PTE of Glycol Ethers (tons/year)
TD102	5216 Heat Resistant Aluminum EN (Low VOC) (4 parts)	8.03	0.028	1.00	8.00%	0.0%	0.0%	0.0%	0.08	0.00	0.00	0.00
	Thinner (xylene/ethyl benzene) (1 part)	7.24	0.007	1.00	0.0%	75.00%	25.0%	0.0%	0.00	0.17	0.06	0.00
	Black Paint - Devflex 4216-9990	8.57	0.300	0.13	0.0%	0.0%	15.0%	0.0%	0.00	0.00	0.00	0.21
Totals									0.08	0.17	0.06	0.21

PTE of Total HAPs (tons/year) **0.51**

Methodology

Maximum Throughput (unit/day) = Maximum Throughput (unit/hour) * [24 hours/day]
 Maximum Usage (gal/day) = [Maximum Usage (gal/unit)] * [Maximum Throughput (unit/day)]
 Pounds of VOC per Gallon Coating less Water = [Density (lb/gal)] * [Weight % VOC] / [1 - Volume % water]
 VOC Content (lbs/gal) = [Density (lb/gal)] * [Weight % VOC]
 PTE of VOC (lbs/day) = [VOC Content (lbs/gal)] * [Maximum Throughput (units/day)] * [Maximum Usage (gal/unit)]
 PTE of VOC (tons/year) = [PTE of VOC (lbs/day)] * [365 days/yr] * [ton/2000 lbs]
 PTE of PM/PM10/PM2.5 (before control) (tons/yr) = [Coating Solid Content (lbs/gal)] * [Maximum Throughput (units/day)] * [Maximum Usage (gal/unit)] * [365 days/yr] * [ton/2000 lbs] * [1 - Transfer Efficiency]
 PTE of PM/PM10/PM2.5 (after control) (tons/yr) = [PTE of PM/PM10/PM2.5 (before control) (tons/yr)] * [1 - Control Efficiency]
 PTE of HAP (tons/yr) = [Density (lb/gal)] * [Maximum Throughput (units/day)] * [Maximum Usage (gal/unit)] * [Weight % HAP] * [365 days/yr] * [ton/2000 lbs]

TSD Appendix A: Emission Calculations
VOC and Particulate
Paint Booth TOPB

Company Name: Progress Rail Services Corporation
Source Address: 175 West Chicago Avenue, East Chicago, IN 46312
Permit Number: F089-27288-00381
Administrative Amendment No.: 089-33322-00381
Reviewer: Adam Wheat

PTE of PM/PM10/PM2.5 and VOC

Unit	Material	Density (lb/gal)	Weight % Volatile (H2O & Organics)	Weight % Water + Non-VOC	Weight % VOC	Volume % Water + Non-VOC	Volume % Solids	Maximum Usage (gal/unit)	Maximum Throughput (unit/hour)*	Maximum Throughput (unit/day)	Maximum Usage (gal/day)	Unit Processed	Pounds VOC per gallon of coating less water	VOC Content (lbs/gal)	PTE of VOC (lbs/hour)	PTE of VOC (lbs/day)	PTE of VOC (tons/yr)	PTE of PM/PM10/PM2.5 Before Control (tons/yr)	PTE of PM/PM10/PM2.5 After Control (tons/yr)	lb VOC/gal solids	Transfer Efficiency**	Particulate Control Efficiency					
TOPB	Harbor Mist Alkyd	9.28	72.95%	35.34%	37.61%	39.0%	45.08%	1.25	0.075	1.8	2.25	trucks	6.72	3.49	0.33	7.66	1.43	0.46	0.009	7.57	65%	98%					
	Black Paint - Deviflex 4216-9980	8.57	71.53%	50.10%	21.43%	45.00%	32.15%	1.25	0.075	1.8	2.25	trucks	3.34	1.84	0.17	4.13	0.75	0.45	0.009	5.71	65%	98%					
	Worst Case Paint																										
	Thinner - Sunnyside Paint Thinner	6.52	100.0%	0.0%	100.0%	0.0%	0.0%	0.013	0.075	1.8	0.02	trucks	6.52	6.52	0.01	0.18	0.03	0.00	0.0	0.0	NA	55%	98%				
	Cleaning - Xylol	7.24	100.0%	0.0%	100.0%	0.0%	0.0%	0.10	0.075	1.8	0.15	trucks	7.25	7.25	0.05	1.31	0.24	0.00	0.0	0.0	NA	100%	98%				
Cleaning - Sunnyside Paint Thinner	6.52	100.0%	0.0%	100.0%	0.0%	0.0%	0.40	0.075	1.8	0.72	trucks	6.52	6.52	0.20	4.69	0.86	0.00	0.0	0.0	NA	100%	98%					
Worst Case Total PTE															0.58	14.00	2.55	0.46	0.009								

*Maximum Throughput based upon 1.2 trucks per 16 hours.

** HVLP application method is used in this booth. The transfer efficiency is provided by the source and is lower than the number listed in AP-40.

PTE of Hazardous Air Pollutants (HAPs)

Unit	Material	Density (lb/gal)	Maximum Usage (gal/unit)	Maximum Throughput (unit/hour)	Weight % Toluene	Weight % Xylene	Weight % Ethyl Benzene	Weight % Glycol Ether	PTE of Toluene (tons/year)	PTE of Xylene (tons/year)	PTE of Ethyl Benzene (tons/year)	Glycol Ethers (tons/year)	
TOPB	Harbor Mist Alkyd	9.28	1.25	0.075	2.9%	0.0%	0.0%	0.0%	0.11	0.00	0.00	0.00	
	Black Paint - Deviflex 4216-9980	8.57	1.25	0.075	0.0%	0.0%	0.0%	15.0%	0.00	0.00	0.00	0.53	
	Worst Case Paint												
	Thinner - Sunnyside Paint Thinner	7.24	0.013	0.075	0.0%	0.0%	0.0%	0.0%	0.00	0.00	0.00	0.00	
	Cleaning - Xylol	7.24	0.100	0.075	0.0%	75.0%	25.0%	0.0%	0.00	0.18	0.08	0.00	
Cleaning - Sunnyside Paint Thinner	6.52	0.400	0.075	0.0%	0.0%	0.0%	0.0%	0.00	0.00	0.00	0.00		
Worst Case Total PTE									0.00	0.18	0.08	0.53	

PTE of Total HAPs (tons/year) = 0.77

Methodology

Maximum Throughput (unit/day) = Maximum Throughput (unit/hour) * [24 hours/day]
 Maximum Usage (gal/day) = [Maximum Usage (gal/unit)] * [Maximum Throughput (unit/day)]
 Pounds of VOC per Gallon Coating less Water = [Density (lb/gal)] * [Weight % VOC] / [1 - Volume % water]
 VOC Content (lbs/gal) = [Density (lb/gal)] * [Weight % VOC]
 PTE of VOC (lbs/day) = [VOC Content (lbs/gal)] * [Maximum Throughput (units/day)] * [Maximum Usage (gal/unit)]
 PTE of VOC (tons/year) = [PTE of VOC (lbs/day)] * [365 days/yr] * [ton/2000 lbs]
 PTE of PM/PM10/PM2.5 (before control) (tons/yr) = [Coating Solid Content (lbs/gal)] * [Maximum Throughput (units/day)] * [Maximum Usage (gal/unit)] * [365 days/yr] * [ton/2000 lbs] * [1 - Transfer Efficiency]
 PTE of PM/PM10/PM2.5 (after control) (tons/yr) = [PTE of PM/PM10/PM2.5 (before control) (tons/yr)] * [1 - Control Efficiency]
 PTE of HAP (tons/yr) = [Density (lb/gal)] * [Maximum Throughput (units/day)] * [Maximum Usage (gal/unit)] * [Weight % HAP] * [365 days/yr] * [ton/2000 lbs]

TSD Appendix A: Emission Calculations
Mechanical Blaster 617

Company Name: Progress Rail Services Corporation
Source Address: 175 West Chicago Avenue, East Chicago, IN 46312
Permit Number: F089-27298-00381
Administrative Amendment No.: 089-33322-00381
Reviewer: Adam Wheat

Table 1 - Emission Factors for Abrasives

Abrasive	Emission Factor (EF)	
	lb PM / lb abrasive	lb PM10 / lb PM
Sand	0.041	0.70
Grit	0.010	0.70
Steel Shot	0.004	0.86
Other	0.010	

Unlimited Potential to Emit Before Control			
FR = Flow rate of actual abrasive (lb/hr) =	8000	lb/hr (per nozzle)	
w = fraction of time of wet blasting =	0	%	
N = number of nozzles =	1		
EF = PM emission factor for actual abrasive from Table 1 =	0.004	lb PM/ lb abrasive	
PM10 emission factor ratio for actual abrasive from Table 1 =	0.86	lb PM10 / lb PM	
	PM	PM10	PM2.5*
Potential to Emit (before control) =	32.00	27.52	27.52
Annual Hours of Operation =	8760	8760	8760
Potential to Emit (before control) =	140.16	120.54	120.54
			lb/hr
			hours/yr
			ton/yr

Unlimited Potential to Emit After Control			
	PM	PM10	PM2.5*
Emission Control Device Efficiency =	99.5%	99.5%	99.5%
Potential to Emit (after control) =	0.16	0.14	0.14
Annual Hours of Operation =	8760	8760	8760
Potential to Emit (after control) =	0.70	0.60	0.60
			lb/hr
			hours/yr
			ton/yr

Limited Potential to Emit			
	PM	PM10	PM2.5*
Limited Potential to Emit =	9.15	9.15	9.15
Annual Hours of Operation =	8760	8760	8760
Limited Potential to Emit =	40.08	40.08	40.08
			lb/hr
			hours/yr
			ton/yr

METHODOLOGY

*PM2.5 emissions assumed equal to PM10 emissions.

Emission Factors from STAPPA/ALAPCO "Air Quality Permits", Vol. I, Section 3 "Abrasive Blasting" (1991 edition)

Unlimited Potential to Emit (before control) (lbs/hour) = EF x FR x (1 - w/200) x N (where w should be entered in as a whole number (if w is 50%, enter 50))

Unlimited Potential to Emit (tons/year) = [Potential to Emit (lbs/hour)] x [Annual Hours of Operation (hours/year)] x [ton/2000 lbs]

Unlimited Potential to Emit (after control) = [Potential to Emit (before control)] * [1 - control efficiency]

Limited Potential to Emit (tons/year) = [Limited Potential to Emit (lbs/hour)] x [Annual Hours of Operation (hours/year)] x [ton/2000 lbs]

**TSD Appendix A: Emission Calculations
Rotoblaster Unit 1255 and Grit Blasting Unit TOBB**

Company Name: Progress Rail Services Corporation
Source Address: 175 West Chicago Avenue, East Chicago, IN 46312
Permit Number: F089-27298-00381
Administrative Amendment No.: 089-33322-00381
Reviewer: Adam Wheat

Rotoblaster Unit 1255 (Blast Type: Steel Shot)

Unlimited Potential to Emit (PTE)

Unit ID	Uncontrolled PM/PM10/PM2.5 Emission Rate* (lbs/hr)	Unlimited PTE of PM/PM10/PM2.5 Before Control (tons/yr)	Control Efficiency (%)	Unlimited PTE of PM/PM10/PM2.5 After Control (lbs/hr)	Unlimited PTE of PM/PM10/PM2.5 After Control (tons/yr)
Unit 1255	4.00	17.6	99.0%	0.04	0.18

*This information was provided by the source based on actual uncontrolled emissions from a similar unit. This rotoblaster is not a typical blasting unit. It is a tumbling system, which has lower emissions than a typical unit.

Limited Potential to Emit (PTE)

Unit ID	Limited PTE of PM/PM10/PM2.5 (lbs/hr)	Limited PTE of PM/PM10/PM2.5 (tons/yr)
Unit 1255	0.04	0.18

Methodology

Unlimited PTE of PM/PM10/PM2.5 (before control) (tons/yr) = [Uncontrolled PM/PM10/PM2.5 Emission Rate (lbs/hr)] * [8760 hrs/yr] * [ton/2000 lbs]
 Unlimited PTE of PM/PM10/PM2.5 (after control) (lbs/hr) = [Uncontrolled PM/PM10/PM2.5 Emission Rate (lbs/hr)] * [1 - Control Efficiency]
 Unlimited PTE of PM/PM10/PM2.5 (after control) (tons/yr) = [Unlimited PTE of PM/PM10/PM2.5 (before control) (tons/yr)] * [1 - Control Efficiency]
 Limited PTE of PM/PM10/PM2.5 (tons/yr) = [Limited PTE of PM/PM10/PM2.5 (lbs/hour)] * [8760 hrs/yr] * [ton/2000 lbs]

Grit Blasting Unit TOBB (Blast Media: Black Beauty)

Unlimited Potential to Emit (PTE)

Unit ID	Max. Abrasive Usage (lbs/hr)	PM Emission Factor (lb PM/lb abrasive)*	PTE of PM Before Control (lbs/hr)	PTE of PM Before Controls (tons/yr)	PM10 Emission Factor (lbs PM10/lb PM)*	PTE of PM10/PM2.5 Before Control (lbs/hr)**	PTE of PM10/PM2.5 Before Control (tons/yr)**	Control Device	Control Efficiency	PTE of PM After Control (lbs/hr)	PTE of PM After Control (tons/yr)	PTE of PM10/PM2.5 After Control (lbs/hr)**	PTE of PM10/PM2.5 After Control (tons/yr)**
TOBB	750	0.01	7.50	32.9	0.70	5.25	23.0	Dust Collector	99.0%	0.08	0.33	0.05	0.23

Limited Potential to Emit (PTE)

Unit ID	Limited PTE of PM/PM10/PM2.5 (lbs/hr)	Limited PTE of PM/PM10/PM2.5 (tons/yr)
TOBB	0.06	0.26

Methodology

*Emission factors are from grit blasting from Air Quality Permits, Vol. 1, Section 3 "Abrasive Blasting" (1991 Edition) by Stappa Alapco.
 **PM2.5 emissions assumed equal to PM10 emissions.
 Unlimited PTE of PM (before control) (lbs/hr) = [Max. Abrasive Usage (lbs/hr)] * [PM Emission Factor (lb PM/lb abrasive)]
 Unlimited PTE of PM (before control) (tons/yr) = [Unlimited PTE of PM (before control) (lbs/hr)] * [8760 hrs/yr] * [ton/2000 lbs]
 Unlimited PTE of PM10 (before control) (lbs/hr) = [Unlimited PTE of PM (before control) (lbs/hr)] * [PM10 Emission Factor (lbs PM10/lb PM)]
 Unlimited PTE of PM10 (before control) (tons/yr) = [Unlimited PTE of PM10 (before control) (lbs/hr)] * [8760 hrs/yr] * [ton/2000 lbs]
 Unlimited PTE of PM/PM10/PM2.5 (after control) = [Unlimited PTE of PM/PM10/PM2.5 (before control)] * [1 - Control Efficiency]
 Limited PTE of PM/PM10/PM2.5 (tons/yr) = [Limited PTE of PM/PM10/PM2.5 (lbs/hour)] * [8760 hrs/yr] * [ton/2000 lbs]

TSD Appendix A: Emission Calculations
Natural Gas Combustion Only
MM BTU/HR <100

Company Name: Progress Rail Services Corporation
 Source Address: 175 West Chicago Avenue, East Chicago, IN 46312
 Permit Number: F089-27298-00381
 Administrative Amendment No.: 089-33322-00381
 Reviewer: Adam Wheat

Unit	Maximum Heat Input Capacity (MMBtu/hr)	High Heat Value (MMBtu/MMscf)	Potential Throughput (MMcf/yr)
Oven A425	2.3	1000	20.15
Carrier Furnace CF-1	0.1	1000	0.88
Carrier Furnace CF-2	0.125	1000	1.10
Dayton Furnace DF-1	0.125	1000	1.10
Lennox Furnace LF-1	0.14	1000	1.23
Radiant Space Heaters RH-1 through RH-67	9.045	1000	79.23
Trane Furnaces TF-1 through TF-5	1.25	1000	10.95
Trane Furnace TF-6	0.03	1000	0.26
Water Heaters WH-1, 2 and 3	0.06	1000	0.53
Solution Heater 765	1.75	1000	15.33
Solution Heater 982	1.6	1000	14.02
Solution Heater 1218	0.8	1000	7.01
Solution Heater A574	1.6	1000	14.02
Totals	18.93	1000	165.78

Criteria Pollutants	Pollutant						
	PM*	PM10*	PM2.5*	SO2	NOx	VOC	CO
Emission Factor in lb/MMcf	1.9	7.6	7.6	0.6	100 **see below	5.5	84
Potential Emission in tons/yr	0.16	0.63	0.63	0.050	8.29	0.46	6.96

*PM emission factor is filterable PM only. PM10 emission factor is filterable and condensable PM10 combined. PM2.5 assumed equal to PM10
 **Emission Factors for NOx: Uncontrolled = 100, Low NOx Burner = 50, Low NOx Burners/Flue gas recirculation = 32

Hazardous Air Pollutants	HAPs - Organics*					HAPs - Metals*				
	Benzene	DCB	Formaldehyde	Hexane	Toluene	Pb	Cd	Cr	Mn	Ni
Emission Factor in lb/MMcf	2.1E-03	1.2E-03	7.5E-02	1.8E+00	3.4E-03	5.0E-04	1.1E-03	1.4E-03	3.6E-04	2.1E-03
Potential Emission in tons/yr	1.741E-04	9.947E-05	6.217E-03	0.15	2.818E-04	4.145E-05	9.118E-05	1.160E-04	3.150E-05	1.741E-04

*The five-highest organic and metal HAPs-emission factors are provided above. Additional HAPs emission factors are available in AP-42, Chapter 1.4.

Methodology

All emission factors are based on normal firing.
 MMBtu = 1,000,000 Btu
 MMCF = 1,000,000 Cubic Feet of Gas
 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
 Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,000 MMBtu
 Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton

Potential to Emit Total HAPs (tons/year) = **0.16**

Greenhouse Gases (GHGs)	Greenhouse Gas (GHG)		
	CO2	CH4	N2O
Emission Factor in lb/MMcf	120000	2.3	2.2
Potential Emission in tons/yr	9946.98	0.19	0.18
Summed Potential Emissions in tons/yr	9947.35		
CO2e Total in tons/yr	10007.52		

Methodology

The N2O Emission Factor for uncontrolled is 2.2. The N2O Emission Factor for low Nox burner is 0.64.
 Emission Factors are from AP 42, Table 1.4-2 SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03.
 Greenhouse Warming Potentials (GWP) from Table A-1 of 40 CFR Part 98 Subpart A.
 Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton
 CO2e (tons/yr) = CO2 Potential Emission ton/yr x CO2 GWP (1) + CH4 Potential Emission ton/yr x CH4 GWP (21) + N2O Potential Emission ton/yr x N2O GWP (310).

Abbreviations

PM = Particulate Matter	DCB = Dichlorobenzene	CO2 = Carbon Dioxide
PM10 = Particulate Matter (<10 um)	Pb = Lead	CH4 = Methane
SO2 = Sulfur Dioxide	Cd = Cadmium	N2O = Nitrous Oxide
NOx = Nitrous Oxides	Cr = Chromium	CO2e = CO2 equivalent emissions
VOC = Volatile Organic Compounds	Mn = Manganese	
CO = Carbon Monoxide	Ni = Nickel	

**TSD Appendix A: Emission Calculations
Abrasive Blasting
Portable QUIK-BLAST Recirculating Blaster Unit**

Company Name: Progress Rail Services Corporation
Source Address: 175 West Chicago Avenue, East Chicago, IN 46312
Permit Number: F089-27298-00381
Administrative Amendment No.: 089-33322-00381
Reviewer: Adam Wheat

Table 1 - Emission Factors for Abrasives

Abrasive	Emission Factor (EF)	
	lb PM / lb abrasive	lb PM10 / lb PM
Sand	0.041	0.70
Grit	0.010	0.70
Steel Shot	0.004	0.86
Other*	0.010	

<----- (glass beads)*

*The portable QUIK-BLAST Recirculating Blaster Unit uses glass beads. The PM10 emission factor is assumed to be 0.70 lb PM10 / lb PM.

Unlimited Potential to Emit (PTE) (before integral cyclone and 2-stage fabric filter)			
FR = Flow rate of actual abrasive (lb/hr) =	137.1	lb/hr (per nozzle)	
w = fraction of time of wet blasting =	0	%	
N = number of nozzles =	1		
EF = PM emission factor for actual abrasive from Table 1 =	0.010	lb PM / lb abrasive (glass beads)	
PM10 emission factor ratio for actual abrasive from Table 1 =	0.70	lb PM10 / lb PM	
	PM	PM10	PM2.5*
Unlimited PTE (before integral cyclone and 2-stage fabric filter) =	1.37	0.96	0.96
Annual Hours of Operation =	8760	8760	8760
Unlimited PTE (before integral cyclone and 2-stage fabric filter) =	6.00	4.20	4.20
			lb/hour hours/yr ton/year

Unlimited Potential to Emit (PTE) (after integral cyclone and 2-stage fabric filter)			
	PM	PM10	PM2.5*
Integral Control Device Efficiency =	99.0%	99.0%	99.0%
Unlimited PTE (after integral cyclone and 2-stage fabric filter) =	0.01	0.01	0.01
Annual Hours of Operation =	8760	8760	8760
Unlimited PTE (after integral cyclone and 2-stage fabric filter) =	0.06	0.04	0.04
			lb/hour hours/yr ton/year

METHODOLOGY

*PM2.5 emissions assumed equal to PM10 emissions.

Emission Factors from STAPPA/ALAPCO "Air Quality Permits", Vol. I, Section 3 "Abrasive Blasting" (1991 edition)

Unlimited PTE (before integral cyclone and 2-stage fabric filter) (lbs/hour) = EF x FR x (1 - w/200) x N (where w should be entered in as a whole number (if w is 50%, enter 50))

Unlimited PTE (before integral cyclone and 2-stage fabric filter) (tons/year) = [Unlimited PTE (before integral cyclone and 2-stage fabric filter) (lbs/hour)] x [Annual Hours of Operation (hours/year)] x [ton/2000 lbs]

Unlimited PTE (after integral cyclone and 2-stage fabric filter) (lbs/hour) = [Unlimited PTE (before integral cyclone and 2-stage fabric filter) (lbs/hour)] * [1 - Integral Control Device Efficiency]

Unlimited PTE (after integral cyclone and 2-stage fabric filter) (tons/year) = [Unlimited PTE (before integral cyclone and 2-stage fabric filter) (tons/year)] * [1 - Integral Control Device Efficiency]

IDEM, OAQ has determined that the cyclone and 2-stage fabric filter are each considered an integral part of the Quik-Blast unit. Therefore, the permitting level will be determined using the potential to emit after the cyclone and 2-stage fabric filter. However, for purposes of determining the applicability of Prevention of Significant Deterioration (PSD), potential particulate matter emissions from the Quik-Blast unit were calculated before the cyclone and 2-stage fabric filter.

TSD Appendix A: Emission Calculations
Booth TD101

Company Name: Progress Rail Services Corporation
Source Address: 175 West Chicago Avenue, East Chicago, IN 46312
Permit Number: F089-27298-00381
Administrative Amendment No.: 089-33322-00381
Reviewer: Adam Wheat

Unlimited Potential to Emit (PTE)

Unit ID	Amount of Material Removed During Grinding* (lbs/part)	Maximum Throughput (parts/hour)	PTE of PM/PM10/PM2.5 (lbs/hr)	PTE of PM/PM10/PM2.5 (tons/yr)
TD101	0.25	3.0	0.75	3.29

Methodology

*Based on information was provided by the source

PTE of PM/PM10/PM2.5 (lbs/hr) = [Amount of Material Removed During Grinding (lbs/part)] * [Maximum Throughput (parts/hour)]

PTE of PM/PM10/PM2.5 (tons/yr) = [PTE of PM/PM10/PM2.5 (lbs/hr)] * [8760 hrs/yr] * [ton/2000 lbs]

PM, PM10, PM2.5 emissions assumed equal

**TSD Appendix A: Emission Calculations
Wheel Qualification Stations WQS1 and WQS2**

Company Name: Progress Rail Services Corporation
Source Address: 175 West Chicago Avenue, East Chicago, IN 46312
Permit Number: F089-27298-00381
Administrative Amendment No.: 089-33322-00381
Reviewer: Adam Wheat

Unlimited Potential to Emit (PTE)

Unit ID	Amount of Material Removed During Grinding* (lbs/axle)	Maximum Throughput (axes/hour)	PTE of PM/PM10/PM2.5 (lbs/hr)	PTE of PM/PM10/PM2.5 (tons/yr)
WQS1	0.25	3.0	0.75	3.29
WQS2	0.25	3.0	0.75	3.29
Total				6.57

Methodology

*Based on information was provided by the source

PTE of PM/PM10/PM2.5 (lbs/hr) = [Amount of Material Removed During Grinding (lbs/axle)] * [Maximum Throughput (axes/hour)]

PTE of PM/PM10/PM2.5 (tons/yr) = [PTE of PM/PM10/PM2.5 (lbs/hr)] * [8760 hrs/yr] * [ton/2000 lbs]

PM, PM10, PM2.5 emissions assumed equal

**TSD Appendix A: Emission Calculations
Farrell Turning Lathe**

**Company Name: Progress Rail Services Corporation
Source Address: 175 West Chicago Avenue, East Chicago, IN 46312
Permit Number: F089-27298-00381
Administrative Amendment No.: 089-33322-00381
Reviewer: Adam Wheat**

The Farrell Turning Lathe is a machining operation where metal is removed from the rail car wheelsets during re-profiling. The metal shavings produced by the lathe drop down and are collected and moved to a scrap metal dumpster. During operation, metal fumes are created from the friction of the lathe tool against the wheelset. The fumes contain small amounts of particulate matter. The fumes are collected by a ductwork located above the lathe tool and are routed outdoors.

Unlimited Potential to Emit (PTE)

Unit ID	Maximum Throughput (axles/hour)	Potential PM/PM10/PM2.5 Emission Rate* (lbs/hr)	PTE of PM/PM10/PM2.5 (tons/yr)
Farrell Turning Lathe	3.0	0.028	0.12

Methodology

*Potential PM/PM10/PM2.5 Emission Rate was estimated based on the amount of dust collected in the fabric filter of the Hegenscheidt lathe and conservative assumptions regarding collection and control efficiency

$$\text{PTE of PM/PM10/PM2.5 (tons/yr)} = [\text{PTE of PM/PM10/PM2.5 (lbs/hr)}] * [8760 \text{ hrs/yr}] * [\text{ton}/2000 \text{ lbs}]$$
 PM, PM10, PM2.5 emissions assumed equal.

TSD Appendix A: Emission Calculations
Hegenscheidt Lathe

Company Name: Progress Rail Services Corporation
Source Address: 175 West Chicago Avenue, East Chicago, IN 46312
Permit Number: F089-27298-00381
Administrative Amendment No.: 089-33322-00381
Reviewer: Adam Wheat

The Hegenscheidt Lathe is a machining operation where metal is removed from the rail car wheelsets during re-profiling. The metal shavings produced by the lathe drop down and are collected and moved to a scrap metal dumpster. During operation, metal fumes are created from the friction of the lathe tool against the wheelset. The fumes contain small amounts of particulate matter. The fumes are collected by a ductwork located above the lathe tool and are routed to a fume collection system consisting of a fabric filter.

Unlimited Potential to Emit (PTE)

Unit ID	Maximum Throughput (axles/hour)	Potential PM/PM10/PM2.5 Emission Rate* (lbs/hr)	PTE of PM/PM10/PM2.5 (tons/yr)
Hegenscheidt Turning Lathe	3.5	0.028	0.12

Methodology

*Potential PM/PM10/PM2.5 Emission Rate was estimated based on the amount of dust collected in the fabric filter of the Hegenscheidt lathe and conservative assumptions regarding collection and control efficiency

$$\text{PTE of PM/PM10/PM2.5 (tons/yr)} = [\text{PTE of PM/PM10/PM2.5 (lbs/hr)}] * [8760 \text{ hrs/yr}] * [\text{ton}/2000 \text{ lbs}]$$

PM, PM10, PM2.5 emissions assumed equal.

TSD Appendix A: Emission Calculations
Fugitive Dust Emissions - Unpaved Roads

Company Name: Progress Rail Services Corporation
Source Address: 175 West Chicago Avenue, East Chicago, IN 46312
Permit Number: F089-27298-00381
Administrative Amendment No.: 089-33322-00381
Reviewer: Adam Wheat

Unpaved Roads at Industrial Site

The following calculations determine the amount of emissions created by unpaved roads, based on 8,760 hours of use and AP-42, Ch 13.2.2 (11/2006).

Vehicle Information (provided by source)

Type	Maximum number of vehicles	Number of one-way trips per day per vehicle	Maximum trips per day (trip/day)	Maximum Weight Loaded (tons/trip)	Total Weight driven per day (ton/day)	Maximum one-way distance (feet/trip)	Maximum one-way distance (mi/trip)	Maximum one-way miles (miles/day)	Maximum one-way miles (miles/yr)
Vehicle (one-way trip)	1.0	72.0	72.0	6.4	460.8	53	0.010	0.7	262.8
Vehicle (one-way trip)	1.0	72.0	72.0	6.4	460.8	53	0.010	0.7	262.8
Total			144.0		921.6			1.4	525.6

Average Vehicle Weight Per Trip = 6.4 tons/trip
Average Miles Per Trip = 0.01 miles/trip

Unmitigated Emission Factor, $E_f = k * [(s/12)^a] * [(W/3)^b]$ (Equation 1a from AP-42 13.2.2)

	PM	PM10	PM2.5	
where k =	4.9	1.5	1.5	lb/mi = particle size multiplier (AP-42 Table 13.2.2-2 for Industrial Roads)
s =	4.8	4.8	4.8	% = mean % silt content of unpaved roads (AP-42 Table 13.2.2-1 Sand/Gravel Processing Plant)
a =	0.7	0.9	0.9	= constant (AP-42 Table 13.2.2-2 for Industrial Roads)
W =	6.4	6.4	6.4	tons = average vehicle weight (provided by source)
b =	0.45	0.45	0.45	= constant (AP-42 Table 13.2.2-2 for Industrial Roads)

Taking natural mitigation due to precipitation into consideration, Mitigated Emission Factor, $E_{ext} = E * [(365 - P)/365]$ (Equation 2 from AP-42 13.2.2)

Mitigated Emission Factor, $E_{ext} = E * [(365 - P)/365]$

where P = 125 days of rain greater than or equal to 0.01 inches (see Fig. 13.2.2-1)

	PM	PM10	PM2.5	
Unmitigated Emission Factor, $E_f =$	3.63	0.92	0.92	lb/mile
Mitigated Emission Factor, $E_{ext} =$	2.39	0.61	0.61	lb/mile

Process	Unmitigated PTE of PM (tons/yr)	Unmitigated PTE of PM10 (tons/yr)	Unmitigated PTE of PM2.5 (tons/yr)	Mitigated PTE of PM (tons/yr)	Mitigated PTE of PM10 (tons/yr)	Mitigated PTE of PM2.5 (tons/yr)
Vehicle (one-way trip)	0.48	0.12	0.12	0.31	0.08	0.08
Vehicle (one-way trip)	0.48	0.12	0.12	0.31	0.08	0.08
Total	0.95	0.24	0.24	0.63	0.16	0.16

Methodology

Total Weight driven per day (ton/day) = [Maximum Weight Loaded (tons/trip)] * [Maximum trips per day (trip/day)]
Maximum one-way distance (mi/trip) = [Maximum one-way distance (feet/trip)] / [5280 ft/mile]
Maximum one-way miles (miles/day) = [Maximum trips per year (trip/day)] * [Maximum one-way distance (mi/trip)]
Average Vehicle Weight Per Trip (ton/trip) = SUM[Total Weight driven per day (ton/day)] / SUM[Maximum trips per day (trip/day)]
Average Miles Per Trip (miles/trip) = SUM[Maximum one-way miles (miles/day)] / SUM[Maximum trips per year (trip/day)]
Unmitigated PTE (tons/yr) = (Maximum one-way miles (miles/yr)) * (Unmitigated Emission Factor (lb/mile)) * (ton/2000 lbs)
Mitigated PTE (tons/yr) = (Maximum one-way miles (miles/yr)) * (Mitigated Emission Factor (lb/mile)) * (ton/2000 lbs)
Controlled PTE (tons/yr) = (Mitigated PTE (tons/yr)) * (1 - Dust Control Efficiency)

Abbreviations

PM = Particulate Matter
PM10 = Particulate Matter (<10 um)
PM2.5 = Particulate Matter (<2.5 um)
PTE = Potential to Emit



INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

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Michael R. Pence
Governor

Thomas W. Easterly
Commissioner

SENT VIA U.S. MAIL: CONFIRMED DELIVERY AND SIGNATURE REQUESTED

TO: Aaron Lewis
Progress Rail Services Corporation
175 West Chicago Avenue
East Chicago, IN 46312

DATE: August 7, 2013

FROM: Matt Stuckey, Branch Chief
Permits Branch
Office of Air Quality

SUBJECT: Final Decision
Administrative Amendment to a Federally Enforceable State Operating Permit (FESOP)
089-33322-00381

Enclosed is the final decision and supporting materials for the air permit application referenced above. Please note that this packet contains the original, signed, permit documents.

The final decision is being sent to you because our records indicate that you are the contact person for this application. However, if you are not the appropriate person within your company to receive this document, please forward it to the correct person.

A copy of the final decision and supporting materials has also been sent via standard mail to:
Stacey Venis, Plant Manager
Emmett Keegan, Sage Environmental Consulting, L.P.
OAQ Permits Branch Interested Parties List

If you have technical questions regarding the enclosed documents, please contact the Office of Air Quality, Permits Branch at (317) 233-0178, or toll-free at 1-800-451-6027 (ext. 3-0178), and ask to speak to the permit reviewer who prepared the permit. If you think you have received this document in error, please contact Joanne Smiddie-Brush of my staff at 1-800-451-6027 (ext 3-0185), or via e-mail at jbrush@idem.IN.gov.

Final Applicant Cover letter.dot 6/13/2013



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Michael R. Pence
Governor

Thomas W. Easterly
Commissioner

TO: Interested Parties / Applicant

DATE: August 7, 2013

RE: Progress Rail Services Corporation / 089-33322-00381

FROM: Matthew Stuckey, Branch Chief
Permits Branch
Office of Air Quality

In order to conserve paper and reduce postage costs, IDEM's Office of Air Quality is now sending many permit decisions on CDs in Adobe PDF format. The enclosed CD contains information regarding the company named above.

This permit is also available on the IDEM website at:
<http://www.in.gov/ai/appfiles/idem-caats/>

If you would like to request a paper copy of the permit document, please contact IDEM's central file room at:

Indiana Government Center North, Room 1201
100 North Senate Avenue, MC 50-07
Indianapolis, IN 46204
Phone: 1-800-451-6027 (ext. 4-0965)
Fax (317) 232-8659

Please Note: *If you feel you have received this information 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.*

Enclosures
CD Memo.dot 6/13/2013

Mail Code 61-53

IDEM Staff	VHAUN 8/7/2013 Progress Rail Services Corporation 089-33322-00381 FINAL			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	Handing 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		Aaron Lewis Progress Rail Services Corporation 175 W Chicago Ave East Chicago IN 46312 (Source CAATS)			Confirmed Delivery							
2		Stacey Venis Plant Mgr Progress Rail Services Corporation 175 W Chicago Ave East Chicago IN 46312 (RO CAATS)										
3		East Chicago City Council 4525 Indianapolis Blvd East Chicago IN 46312 (Local Official)										
4		Humes & Berg 4801 Railroad Ave East Chicago IN 46312 (Affected Party)										
5		T & M Rental 300 W Chicago Ave East Chicago IN 46312 (Affected Party)										
6		Gary - Hobart Water Corp 650 Madison St, P.O. Box M486 Gary IN 46401-0486 (Affected Party)										
7		Lake County Health Department-Gary 1145 W. 5th Ave Gary IN 46402-1795 (Health Department)										
8		WJOB / WZVN Radio 6405 Olcott Ave Hammond IN 46320 (Affected Party)										
9		Shawn Sobocinski 3229 E. Atlanta Court Portage IN 46368 (Affected Party)										
10		Mark Coleman 107 Diana Road Portage IN 46368 (Affected Party)										
11		Mr. Chris Hernandez Pipefitters Association, Local Union 597 8762 Louisiana St., Suite G Merrillville IN 46410 (Affected Party)										
12		Craig Hogarth 7901 West Morris Street Indianapolis IN 46231 (Affected Party)										
13		Lake County Commissioners 2293 N. Main St, Building A 3rd Floor Crown Point IN 46307 (Local Official)										
14		Anthony Copeland 2006 E. 140th Street East Chicago IN 46312 (Affected Party)										
15		Barbara G. Perez 506 Lilac Street East Chicago IN 46312 (Affected Party)										

Total number of pieces Listed by Sender	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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Line	Article Number	Name, Address, Street and Post Office Address	Postage	Handing 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		Robert Garcia 3733 Parrish Avenue East Chicago IN 46312 (Affected Party)										
2		Ms. Karen Kroczek 8212 Madison Ave Munster IN 46321-1627 (Affected Party)										
3		Joseph Hero 11723 S Oakridge Drive St. John IN 46373 (Affected Party)										
4		Gary City Council 401 Broadway # 209 Gary IN 46402 (Local Official)										
5		Mr. Larry Davis 268 South, 600 West Hebron IN 46341 (Affected Party)										
6		Ryan Dave 939 Cornwallis Munster IN 46321 (Affected Party)										
7		Matt Mikus Post Tribune 1433 E 83rd Avenue Merrillville IN 46410 (Affected Party)										
8		Emmett Keegan Sage Environmental Consulting, L.P. 835 Beach Avenue LaGrange Park IL 60526 (Consultant)										
9												
10												
11												
12												
13												
14												
15												

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