



Mitchell E. Daniels, Jr.
Governor

Thomas W. Easterly
Commissioner

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

TO: Interested Parties / Applicant
DATE: September 23, 2008
RE: Union Tank Car Company / 089-23442-00332
FROM: Matthew Stuckey, Deputy Branch Chief
Permits Branch
Office of Air Quality

Notice of Decision: Approval – Effective Immediately

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

If you wish to challenge this decision, IC 4-21.5-3-7 and IC 13-15-6-1(b) or IC 13-15-6-1(a) require that you file a petition for administrative review. This petition may include a request for stay of effectiveness and must be submitted to the Office of Environmental Adjudication, 100 North Senate Avenue, Government Center North, Suite N 501E, Indianapolis, IN 46204.

For an **initial Title V Operating Permit**, a petition for administrative review must be submitted to the Office of Environmental Adjudication within **thirty (30)** days from the receipt of this notice provided under IC 13-15-5-3, pursuant to IC 13-15-6-1(b).

For a **Title V Operating Permit renewal**, a petition for administrative review must be submitted to the Office of Environmental Adjudication within **fifteen (15)** days from the receipt of this notice provided under IC 13-15-5-3, pursuant to IC 13-15-6-1(a).

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.

Pursuant to 326 IAC 2-7-18(d), any person may petition the U.S. EPA to object to the issuance of an initial Title V operating permit, permit renewal, or modification within sixty (60) days of the end of the forty-five (45) day EPA review period. Such an objection must be based only on issues that were raised with reasonable specificity during the public comment period, unless the petitioner demonstrates that it was impracticable to raise such issues, or if the grounds for such objection arose after the comment period.

To petition the U.S. EPA to object to the issuance of a Title V operating permit, contact:

U.S. Environmental Protection Agency
401 M Street
Washington, D.C. 20406

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.



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Part 70 Operating Permit Renewal OFFICE OF AIR QUALITY

**Union Tank Car Company - Plant #1
151st Street and Railroad 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. Noncompliance with any provision of this permit, except any provision specifically designated as not federally enforceable, constitutes a violation of the Clean Air Act. It shall not be a defense for the Permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit. An emergency does constitute an affirmative defense in an enforcement action provided the Permittee complies with the applicable requirements set forth in Section B, Emergency Provisions.

This permit is issued in accordance with 326 IAC 2 and 40 CFR Part 70 Appendix A and contains the conditions and provisions specified in 326 IAC 2-7 as required by 42 U.S.C. 7401, et. seq. (Clean Air Act as amended by the 1990 Clean Air Act Amendments), 40 CFR Part 70.6, IC 13-15 and IC 13-17.

Operation Permit Renewal No.: T089-23442-00332	
Original signed by:	Issuance Date: September 23, 2008
Donald F. Robin, P.E., Section Chief Permits Branch Office of Air Quality	Expiration Date: September 23, 2013

TABLE OF CONTENTS

A. SOURCE SUMMARY

- A.1 General Information [326 IAC 2-7-4(c)][326 IAC 2-7-5(15)][326 IAC 2-7-1(22)]
- A.2 Emission Units and Pollution Control Equipment Summary [326 IAC 2-7-4(c)(3)]
[326 IAC 2-7-5(15)]
- A.3 Specifically Regulated Insignificant Activities [326 IAC 2-7-1(21)][326 IAC 2-7-4(c)]
[326 IAC 2-7-5(15)]
- A.4 Part 70 Permit Applicability [326 IAC 2-7-2]

B. GENERAL CONDITIONS

- B.1 Definitions [326 IAC 2-7-1]
- B.2 Permit Term [326 IAC 2-7-5(2)][326 IAC 2-1.1-9.5][326 IAC 2-7-4(a)(1)(D)]
[IC 13-15-3-6(a)]
- B.3 Term of Conditions [326 IAC 2-1.1-9.5]
- B.4 Enforceability [326 IAC 2-7-7]
- B.5 Severability [326 IAC 2-7-5(5)]
- B.6 Property Rights or Exclusive Privilege [326 IAC 2-7-5(6)(D)]
- B.7 Duty to Provide Information [326 IAC 2-7-5(6)(E)]
- B.8 Certification [326 IAC 2-7-4(f)][326 IAC 2-7-6(1)][326 IAC 2-7-5(3)(C)]
- B.9 Annual Compliance Certification [326 IAC 2-7-6(5)]
- B.10 Preventive Maintenance Plan [326 IAC 2-7-5(1),(3) and (13)][326 IAC 2-7-6(1) and (6)]
[326 IAC 1-6-3]
- B.11 Emergency Provisions [326 IAC 2-7-16]
- B.12 Permit Shield [326 IAC 2-7-15][326 IAC 2-7-20][326 IAC 2-7-12]
- B.13 Prior Permits Superseded [326 IAC 2-1.1-9.5][326 IAC 2-7-10.5]
- B.14 Termination of Right to Operate [326 IAC 2-7-10][326 IAC 2-7-4(a)]
- B.15 Deviations from Permit Requirements and Conditions [326 IAC 2-7-5(3)(C)(ii)]
- B.16 Permit Modification, Reopening, Revocation and Reissuance, or Termination
[326 IAC 2-7-5(6)(C)][326 IAC 2-7-8(a)][326 IAC 2-7-9]
- B.17 Permit Renewal [326 IAC 2-7-3][326 IAC 2-7-4][326 IAC 2-7-8(e)]
- B.18 Permit Amendment or Modification [326 IAC 2-7-11][326 IAC 2-7-12]
- B.19 Permit Revision Under Economic Incentives and Other Programs [326 IAC 2-7-5(8)]
[326 IAC 2-7-12(b)(2)]
- B.20 Operational Flexibility [326 IAC 2-7-20][326 IAC 2-7-10.5]
- B.21 Source Modification Requirement [326 IAC 2-7-10.5]
- B.22 Inspection and Entry [326 IAC 2-7-6][IC 13-14-2-2][IC 13-30-3-1][IC 13-17-3-2]
- B.23 Transfer of Ownership or Operational Control [326 IAC 2-7-11]
- B.24 Annual Fee Payment [326 IAC 2-7-19][326 IAC 2-7-5(7)][326 IAC 2-1.1-7]
- B.25 Credible Evidence [326 IAC 2-7-5(3)][326 IAC 2-7-6][62 FR 8314][326 IAC 1-1-6]

C. SOURCE OPERATION CONDITIONS

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

- C.1 Opacity [326 IAC 5-1]
- C.2 Open Burning [326 IAC 4-1][IC 13-17-9]
- C.3 Incineration [326 IAC 4-2][326 IAC 9-1-2]
- C.4 Fugitive Dust Emissions [326 IAC 6-4]
- C.5 Fugitive Dust Emissions [326 IAC 6.8-10-3]
- C.6 Stack Height [326 IAC 1-7]
- C.7 Asbestos Abatement Projects [326 IAC 14-10][326 IAC 18][40 CFR 61, Subpart M]

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

- C.8 Performance Testing [326 IAC 3-6]

Compliance Requirements [326 IAC 2-1.1-11]

- C.9 Compliance Requirements [326 IAC 2-1.1-11]

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

- C.10 Compliance Monitoring [326 IAC 2-7-5(3)][326 IAC 2-7-6(1)]
- C.11 Monitoring Methods [326 IAC 3][40 CFR 60][40 CFR 63]
- C.12 Instrument Specifications [326 IAC 2-1.1-11][326 IAC 2-7-5(3)]
[326 IAC 2-7-6(1)]

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

- C.13 Emergency Reduction Plans [326 IAC 1-5-2][326 IAC 1-5-3]
- C.14 Risk Management Plan [326 IAC 2-7-5(12)][40 CFR 68]
- C.15 Response to Excursions or Exceedances [326 IAC 2-7-5][326 IAC 2-7-6]
- C.16 Actions Related to Noncompliance Demonstrated by a Stack Test [326 IAC 2-7-5][326 IAC 2-7-6]

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

- C.17 Emission Statement [326 IAC 2-7-5(3)(C)(iii)][326 IAC 2-7-5(7)][326 IAC 2-7-19(c)]
[326 IAC 2-6]
- C.18 General Record Keeping Requirements [326 IAC 2-7-5(3)][326 IAC 2-7-6][326 IAC 2-2]
[326 IAC 2-3]
- C.19 General Reporting Requirements [326 IAC 2-7-5(3)(C)][326 IAC 2-1.1-11]
[326 IAC 2-3]

Stratospheric Ozone Protection

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

D.1. EMISSIONS UNIT OPERATION CONDITIONS - Three (3) Surface Coating Booths

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

- D.1.1 Volatile Organic Compounds (VOC) [326 IAC 8-2-9]
- D.1.2 Emission Offset Limit [326 IAC 2-3]
- D.1.3 Hazardous Air Pollutant (HAP) Limit [326 IAC 2-4.1][40 CFR Part 63.50][326 IAC 20-1]
- D.1.4 Particulate Matter (PM) Limit [326 IAC 6.8-1-2]
- D.1.5 Preventive Maintenance Plan [326 IAC 2-7-4(c)(9)]

Compliance Determination Requirements

- D.1.6 Volatile Organic Compounds (VOC) [326 IAC 8-1-2][326 IAC 8-1-4][326 IAC 2-3]
- D.1.7 Hazardous Air Pollutants (HAPs)

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

- D.1.8 Particulate Matter (PM)
- D.1.9 Monitoring

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

- D.1.10 Record Keeping Requirements
- D.1.11 Reporting Requirements

D.2. FACILITY OPERATION CONDITIONS - One (1) Grit Blast and One (1) Rotoblast

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

- D.2.1 Particulate Matter Limitations for Lake County [326 IAC 6.8]
- D.2.2 Particulate Matter Limitations [326 IAC 6-3-2]
- D.2.3 Particulate Matter Limitations [326 IAC 2-3]
- D.2.4 Preventive Maintenance Plan [326 IAC 2-7-4(c)(9)]

Compliance Determination Requirements

- D.2.5 Testing Requirements [326 IAC 2-7-6(1),(6)][326 IAC 2-1.1-11]
- D.2.6 Particulate Matter (PM) [326 IAC 2-3][326 IAC 6.8]

Compliance Monitoring Requirements [326 IAC 2-7-6(1)][326 IAC 2-7-5(1)][40 CFR 64]

- D.2.7 Parametric Monitoring [40 CFR 64]

- D.2.8 Dust Collector Failure [40 CFR 64]
- D.2.9 Visible Emissions Notations [40 CFR 64]

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

- D.2.10 Record Keeping Requirements

D.3 FACILITY OPERATION CONDITIONS - Two (2) natural gas stress furnaces

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

- D.3.1 Particulate [326 IAC 6.8-2-36]

D.4 FACILITY OPERATION CONDITIONS - Two (2) grit blast operations

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

- D.4.1 PM and PM10 Emission Limitations [326 IAC 2-3]
- D.4.2 Particulate Matter Limitations for Lake County [326 IAC 6.8-1-2]
- D.4.3 Preventive Maintenance Plan [326 IAC 2-7-4(c)(9)]

Compliance Determination Requirements

- D.4.4 Testing Requirements [326 IAC 2-7-6(1),(6)][326 IAC 2-1.1-11]
- D.4.5 Particulate Matter (PM) [326 IAC 2-3][326 IAC 6.8]

Compliance Monitoring Requirements [326 IAC 2-7-6(1)][326 IAC 2-7-5(1)][40 CFR 64]

- D.4.6 Visible Emissions Notations [40 CFR 64]
- D.4.7 Parametric Monitoring [40 CFR 64]
- D.4.8 Baghouse Failure [40 CFR 64]

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

- D.4.9 Record Keeping Requirements

D.5 FACILITY CONDITIONS - Welding operations

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

- D.5.1 PM and PM10 Emission Limitations [326 IAC 2-3]
- D.5.2 Particulate Matter Limitations for Lake County [326 IAC 6.8-1-2]
- D.5.3 Preventive Maintenance Plan [326 IAC 2-7-4(c)(9)]

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

- D.5.4 Record Keeping Requirements

D.6 FACILITY OPERATION CONDITIONS - Insignificant Activities

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

- D.6.1 Particulate [326 IAC 6.8-2-36]
- D.6.2 Particulate [326 IAC 6.8-1-2(a)]
- D.6.3 Volatile Organic Compounds (VOC) [326 IAC 8-3-2]
- D.6.4 Volatile Organic Compounds (VOC) [326 IAC 8-3-5]

Certification Form

Emergency Occurrence Report

Part 70 Quarterly Reporting Forms

Quarterly Deviation and Compliance Monitoring Report

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 2-7-4(c)][326 IAC 2-7-5(15)][326 IAC 2-7-1(22)]

The Permittee owns and operates a stationary steel railroad car manufacturing.

Source Address:	151st Street and Railroad Avenue East Chicago, Indiana 46312
Mailing Address:	300 West 151st Street, East Chicago, Indiana 46312
General Source Phone Number:	(219) 392-6433
SIC Code:	3743
County Location:	Lake
Source Location Status:	Moderate Nonattainment for 8-hour ozone standard Nonattainment for PM2.5 standard Maintenance Attainment for all other criteria pollutants
Source Status:	Part 70 Operating Permit Program Minor Source, under PSD Rules Major Source, under 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 2-7-4(c)(3)][326 IAC 2-7-5(15)]

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

- (a) Three (3) surface coating booths, constructed in 1978 and modified in 1997, identified as P-SC-01 (3a, 3b, and 3c), utilizing air assisted airless method of spraying with a maximum capacity of 193 pounds of paint per hour and 0.75 steel tank cars per hour, using three (3) dry filters for over spray control, with three paint oven heating units consisting of:
 - (1) Three (3) natural gas makeup air heaters rated at 7.387 MMBtu/hr each;
 - (2) Three (3) natural gas drying room heaters rated at 0.275 MMBtu/hr each;
 - (3) Three (3) natural gas drying room groups of catalytic infrared heaters each group rated at 3.24 MMBtu/hr;Each booth exhausts to one of three (3) stacks, 3:a1, 3:a2 and 3:a3.
- (b) One (1) grit blast, constructed in 1969, identified as P-PB-01, located in building #7, with a maximum design flow rate of 14.4 tons per hour, using two dust collectors as control, exhausting to stacks 2A and 2B.
- (c) One (1) rotoblast, constructed in 1968 and modified in 1994, identified as P-PB-02, located in building #7, with a maximum design flow rate of 16.3 tons per hour, using two (2) dust collectors rated at 45,000 ACFM each as control, each exhausting to stacks 6A and 6B.
- (d) One (1) natural gas-fired normalizing furnace, constructed in 1993, identified as P-CB-01, with a maximum capacity of 20.925 MMBtu/hr, emissions are uncontrolled, exhausting to stack 29.

- (e) One (1) natural gas-fired stress furnace (North), constructed in 1969, identified as P-CB-02, with a maximum capacity of 33.0 MMBtu/hr as determined in a performance test, exhausting to stack 5B.
- (f) One (1) natural gas-fired stress furnace (South), constructed in 1969 and modified in 1993, identified as P-CB-03, with a maximum capacity of 40.0 MMBtu/hr as determined in a performance test, exhausting to stack 5A.
- (g) One (1) grit blast operation (Exterior Blast), constructed in 1989, identified as P-PB-03, with a measured maximum design flow rate of 3.72 tons per hour, using a baghouse rated at 30,000 ACFM for control, exhausting to stack S-PB-03.
- (h) One (1) grit blast operation (Interior Blast), constructed in 1989, identified as P-PB-04, with a measured maximum design flow rate of 1.86 tons per hour, using a baghouse rated at 20,000 ACFM for control, exhausting to stack S-PB-04.
- (i) Welding Operations, constructed in 1969 and modified in 1975 and 1989, identified as P-WD-01, consisting of the following:
 - (1) Shielded Metal Arc Welding (SMAW) consuming a maximum of 88,110 pounds per year of electrode.
 - (2) Submerged Arc Welding (SAW) consuming a maximum of 545,640 pounds per year of electrode.
 - (3) Gas Metal Arc Welding (GMAW) consuming a maximum of 248,777 pounds per year of electrode.
 - (4) Flux Core Arc Welding (FCAW) consuming a maximum of 573,120 pounds per year of electrode.
- (j) The paint application room, consisting of the following
 - (1) Building # 8 paint booth identified as P-SC-02;
 - (2) Stencil shop, identified as P-SC-04; and
 - (3) Building #8 jacket prime identified as P-SC-05.

A.3 Specifically Regulated Insignificant Activities [326 IAC 2-7-1(21)][326 IAC 2-7-4(c)][326 IAC 2-7-5(15)]

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

- (a) Natural gas-fired combustion sources with heat input equal to or less than ten (10) million Btu per hour, specified as follows:
 - (1) One (1) boiler, constructed in 1987, identified as No. 4, with a maximum capacity of 6.28 MMBtu/hr. [326 IAC 6.8-2-36]
 - (2) One (1) boiler, identified as No. 8, constructed in 1991, with a maximum capacity 3.00 MMBtu/hr. [326 IAC 6.8-1-2(a)]
 - (3) One (1) boiler (Preheater for air dryers), constructed in 1991, identified as P-CB-08, with a maximum capacity of 0.85 MMBtu/hr. [326 IAC 6.8-1-2(a)]
- (b) Degreasing operations that do not exceed 145 gallons per 12 months. [326 IAC 8-3-2 and 326 IAC 8-3-5]

- (c) Grinding and machining operations controlled with fabric filters, scrubbers, mist collectors, wet collectors, and electrostatic precipitators with a design grain loading of less than or equal to 0.03 grains per actual cubic foot and a gas flow less than 4000 actual cubic feet per minute, including the following: deburring, buffing, polishing, abrasive blasting, pneumatic conveying and woodworking operations, identified as Small Parts Blast (P-PB-06). [326 IAC 6.8-1-2(a)]

A.4 Part 70 Permit Applicability [326 IAC 2-7-2]

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

- (a) It is a major source, as defined in 326 IAC 2-7-1(22);
- (b) It is a source in a source category designated by the United States Environmental Protection Agency (U.S. EPA) under 40 CFR 70.3 (Part 70 - Applicability).

SECTION B GENERAL CONDITIONS

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

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

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

- (a) This permit, T089-23442-00332, is issued for a fixed term of five (5) years from the issuance date of this permit, as determined in accordance with IC 4-21.5-3-5(f) and IC 13-15-5-3. Subsequent revisions, modifications, or amendments of this permit do not affect the expiration date of this permit.
- (b) If IDEM, OAQ, upon receiving a timely and complete renewal permit application, fails to issue or deny the permit renewal prior to the expiration date of this permit, this existing permit shall not expire and all terms and conditions shall continue in effect, including any permit shield provided in 326 IAC 2-7-15, until the renewal permit has been issued or denied.

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

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

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

B.4 Enforceability [326 IAC 2-7-7]

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

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

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

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

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

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

- (a) The Permittee shall furnish to IDEM, OAQ, within a reasonable time, any information that IDEM, OAQ may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. The submittal by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34). Upon request, the Permittee shall also furnish to IDEM, OAQ copies of records required to be kept by this permit.
- (b) For information furnished by the Permittee to IDEM, OAQ, the Permittee may include a claim of confidentiality in accordance with 326 IAC 17.1. When furnishing copies of requested records directly to U. S. EPA, the Permittee may assert a claim of confidentiality in accordance with 40 CFR 2, Subpart B.

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

- (a) Where specifically designated by this permit or required by an applicable requirement, any application form, report, or compliance certification submitted shall contain certification by the "responsible official" of truth, accuracy, and completeness. This certification shall state that,

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

- (b) One (1) certification shall be included, using the attached Certification Form, with each submittal requiring certification. One (1) certification may cover multiple forms in one (1) submittal.
- (c) A "responsible official" is defined at 326 IAC 2-7-1(34).

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

- (a) The Permittee shall annually submit a compliance certification report which addresses the status of the source's compliance with the terms and conditions contained in this permit, including emission limitations, standards, or work practices. 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 Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

and

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

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

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

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

- (a) If required by specific condition(s) in Section D of this permit, the Permittee shall maintain and implement Preventive Maintenance Plans (PMPs) 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.
- (b) A copy of the PMPs shall be submitted to IDEM, OAQ upon request and within a reasonable time, and shall be subject to review and approval by IDEM, OAQ. IDEM, OAQ may require the Permittee to revise its PMPs whenever lack of proper maintenance causes or is the primary contributor to an exceedance of any limitation on emissions or potential to emit. The PMPs do not require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).
- (c) To the extent the Permittee is required by 40 CFR Part 60/63 to have an Operation Maintenance, and Monitoring (OMM) Plan for a unit, such Plan is deemed to satisfy the PMP requirements of 326 IAC 1-6-3 for that unit.

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

- (a) An emergency, as defined in 326 IAC 2-7-1(12), is not an affirmative defense for an action brought for noncompliance with a federal or state health-based emission limitation.
- (b) An emergency, as defined in 326 IAC 2-7-1(12), constitutes an affirmative defense to an action brought for noncompliance with a technology-based emission limitation if the affirmative defense of an emergency is demonstrated through properly signed, contemporaneous operating logs or other relevant evidence that describe the following:
 - (1) An emergency occurred and the Permittee can, to the extent possible, identify the causes of the emergency;
 - (2) The permitted facility was at the time being properly operated;
 - (3) During the period of an emergency, the Permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards or other requirements in this permit;
 - (4) For each emergency lasting one (1) hour or more, the Permittee notified IDEM, OAQ, and 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 Section), or
Telephone Number: 317-233-0178 (ask for Compliance Section)
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 Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

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

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

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

The notification which shall be submitted by the Permittee does not require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

- (6) The Permittee immediately took all reasonable steps to correct the emergency.
- (c) In any enforcement proceeding, the Permittee seeking to establish the occurrence of an emergency has the burden of proof.
- (d) This emergency provision supersedes 326 IAC 1-6 (Malfunctions). This permit condition is in addition to any emergency or upset provision contained in any applicable requirement.
- (e) The Permittee seeking to establish the occurrence of an emergency shall make records available upon request to ensure that failure to implement a PMP did not cause or contribute to an exceedance of any limitations on emissions. However, IDEM, OAQ may require that the Preventive Maintenance Plans required under 326 IAC 2-7-4(c)(9) be revised in response to an emergency.
- (f) Failure to notify IDEM, OAQ by telephone or facsimile of an emergency lasting more than one (1) hour in accordance with (b)(4) and (5) of this condition shall constitute a violation of 326 IAC 2-7 and any other applicable rules.
- (g) If the emergency situation causes a deviation from a technology-based limit, the Permittee may continue to operate the affected emitting facilities during the emergency provided the Permittee immediately takes all reasonable steps to correct the emergency and minimize emissions.
- (h) The Permittee shall include all emergencies in the Quarterly Deviation and Compliance Monitoring Report.

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

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

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

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

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

- (a) All terms and conditions of permits established prior to T089-23442-00332 and issued pursuant to permitting programs approved into the state implementation plan have been either:
 - (1) incorporated as originally stated,
 - (2) revised under 326 IAC 2-7-10.5, or
 - (3) deleted under 326 IAC 2-7-10.5.
- (b) Provided that all terms and conditions are accurately reflected in this permit, all previous registrations and permits are superseded by this Part 70 operating permit.

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

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

B.15 Deviations from Permit Requirements and Conditions [326 IAC 2-7-5(3)(C)(ii)]

- (a) Deviations from any permit requirements (for emergencies see Section B - Emergency Provisions), the probable cause of such deviations, and any response steps or preventive measures taken shall be reported to:

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

using the attached Quarterly Deviation and Compliance Monitoring Report, or its equivalent. A deviation required to be reported pursuant to an applicable requirement that exists independent of this permit, shall be reported according to the schedule stated in the applicable requirement and does not need to be included in this report.

The Quarterly Deviation and Compliance Monitoring Report does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

- (b) A deviation is an exceedance of a permit limitation or a failure to comply with a requirement of the permit.

B.16 Permit Modification, Reopening, Revocation and Reissuance, or Termination [326 IAC 2-7-5(6)(C)] [326 IAC 2-7-8(a)] [326 IAC 2-7-9]

- (a) This permit may be modified, reopened, revoked and reissued, or terminated for cause. The filing of a request by the Permittee for a Part 70 Operating Permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any condition of this permit. [326 IAC 2-7-5(6)(C)] The notification by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

- (b) This permit shall be reopened and revised under any of the circumstances listed in IC 13-15-7-2 or if IDEM, OAQ determines any of the following:

- (1) That this permit contains a material mistake.
- (2) That inaccurate statements were made in establishing the emissions standards or other terms or conditions.
- (3) That this permit must be revised or revoked to assure compliance with an applicable requirement. [326 IAC 2-7-9(a)(3)]

- (c) Proceedings by IDEM, OAQ to reopen and revise this permit shall follow the same procedures as apply to initial permit issuance and shall affect only those parts of this permit for which cause to reopen exists. Such reopening and revision shall be made as expeditiously as practicable. [326 IAC 2-7-9(b)]

- (d) The reopening and revision of this permit, under 326 IAC 2-7-9(a), shall not be initiated before notice of such intent is provided to the Permittee by IDEM, OAQ at least thirty (30) days in advance of the date this permit is to be reopened, except that IDEM, OAQ may provide a shorter time period in the case of an emergency. [326 IAC 2-7-9(c)]

B.17 Permit Renewal [326 IAC 2-7-3][326 IAC 2-7-4][326 IAC 2-7-8(e)]

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

326 IAC 2-7-1(40). The renewal application does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

Request for renewal shall be submitted to:

Indiana Department of Environmental Management
Permits Branch, Office of Air Quality
100 North Senate Avenue
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 2-7 until IDEM, OAQ takes final action on the renewal application, except that this protection shall cease to apply if, subsequent to the completeness determination, the Permittee fails to submit by the deadline specified in writing by IDEM, OAQ any additional information identified as being needed to process the application.

B.18 Permit Amendment or Modification [326 IAC 2-7-11][326 IAC 2-7-12]

- (a) Permit amendments and modifications are governed by the requirements of 326 IAC 2-7-11 or 326 IAC 2-7-12 whenever the Permittee seeks to amend or modify this permit.
- (b) Any application requesting an amendment or modification of this permit shall be submitted to:
- Indiana Department of Environmental Management
Permits Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251
- Any such application shall be certified by the "responsible official" as defined by 326 IAC 2-7-1(34).
- (c) The Permittee may implement administrative amendment changes addressed in the request for an administrative amendment immediately upon submittal of the request. [326 IAC 2-7-11(c)(3)]

B.19 Permit Revision Under Economic Incentives and Other Programs [326 IAC 2-7-5(8)][326 IAC 2-7-12(b)(2)]

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

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

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

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

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

and

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

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

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

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

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

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

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

- (c) Emission Trades [326 IAC 2-7-20(c)]
The Permittee may trade emissions increases and decreases at the source, where the applicable SIP provides for such emission trades without requiring a permit revision, subject to the constraints of Section (a) of this condition and those in 326 IAC 2-7-20(c).
- (d) Alternative Operating Scenarios [326 IAC 2-7-20(d)]
The Permittee may make changes at the source within the range of alternative operating scenarios that are described in the terms and conditions of this permit in accordance with 326 IAC 2-7-5(9). No prior notification of IDEM, OAQ, or U.S. EPA is required.
- (e) Backup fuel switches specifically addressed in, and limited under, Section D of this permit shall not be considered alternative operating scenarios. Therefore, the notification requirements of part (a) of this condition do not apply.

B.21 Source Modification Requirement [326 IAC 2-7-10.5]

- (a) A modification, construction, or reconstruction is governed by the requirements of 326 IAC 2 and 326 IAC 2-7-10.5.
- (b) Any modification at an existing major source is governed by the requirements of 326 IAC 2-3.

B.22 Inspection and Entry [326 IAC 2-7-6][IC 13-14-2-2][IC 13-30-3-1][IC 13-17-3-2]

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

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

B.23 Transfer of Ownership or Operational Control [326 IAC 2-7-11]

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

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

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

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

B.24 Annual Fee Payment [326 IAC 2-7-19][326 IAC 2-7-5(7)][326 IAC 2-1.1-7]

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

B.25 Credible Evidence [326 IAC 2-7-5(3)][326 IAC 2-7-6][62 FR 8314][326 IAC 1-1-6]

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

SECTION C SOURCE OPERATION CONDITIONS

Entire Source

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

C.1 Opacity [326 IAC 5-1]

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

- (a) Opacity shall not exceed an average of 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.2 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.3 Incineration [326 IAC 4-2][326 IAC 9-1-2]

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

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

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

C.5 Fugitive Dust Emissions [326 IAC 6.8-10-3]

Pursuant to 326 IAC 6.8-10-3 (formerly 326 IAC 6-1-11.1) (Lake County Fugitive Particulate Matter Control Requirements), the particulate matter emissions from source wide activities shall meet the following requirements:

- (a) The average instantaneous opacity of fugitive particulate emissions from a paved road shall not exceed ten percent (10%).
- (b) The average instantaneous opacity of fugitive particulate emissions from an unpaved road shall not exceed ten percent (10%).
- (c) The average instantaneous opacity of fugitive particulate emissions from batch transfer shall not exceed ten percent (10%).
- (d) The opacity of fugitive particulate emissions from continuous transfer of material onto and out of storage piles shall not exceed ten percent (10%) on a three (3) minute average.
- (e) The opacity of fugitive particulate emissions from storage piles shall not exceed ten percent (10%) on a six (6) minute average.
- (f) There shall be a zero (0) percent frequency of visible emission observations of a material during the inplant transportation of material by truck or rail at any time.
- (g) The opacity of fugitive particulate emissions from the inplant transportation of material by front end loaders and skip hoists shall not exceed ten percent (10%).

- (h) There shall be a zero (0) percent frequency of visible emission observations from a building enclosing all or part of the material processing equipment, except from a vent in the building.
- (i) The PM10 emissions from building vents shall not exceed twenty-two thousandths (0.022) grains per dry standard cubic foot and ten percent (10%) opacity.
- (j) The opacity of particulate emissions from dust handling equipment shall not exceed ten percent (10%).
- (k) Any facility or operation not specified in 326 IAC 6.8-10-3 shall meet a twenty percent (20%), three (3) minute average opacity standard.

The Permittee shall achieve these limits by controlling fugitive particulate matter emissions according to the Fugitive Dust Control Plan, submitted on January 24, 2002 and attached to this document as Appendix A - Fugitive Dust Control Plan.

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. The provisions of 326 IAC 1-7-2, 326 IAC 1-7-3(c) and (d), 326 IAC 1-7-4(d), (e) and (f) and 326 IAC 1-7-5(d) are not federally enforceable.

C.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
Asbestos Section, Office of Air Quality
100 North Senate Avenue
MC 61-52 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 by the "responsible official" as defined by 326 IAC 2-7-1(34).

- (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. The requirement to use an Indiana Licensed Asbestos inspector is not federally enforceable.

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

C.8 Performance Testing [326 IAC 3-6]

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

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

Indiana Department of Environmental Management
Compliance Data Section, Office of Air Quality
100 North Senate Avenue
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 certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

- (b) The Permittee shall notify IDEM, OAQ of the actual test date at least fourteen (14) days prior to the actual test date. The notification submitted by the Permittee does not require certification by the "responsible official" as defined by 326 IAC 2-7-1(34).
- (c) Pursuant to 326 IAC 3-6-4(b), all test reports must be received by IDEM, OAQ not later than forty-five (45) days after the completion of the testing. An extension may be granted by IDEM, OAQ if the 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 2-7-5(1)][326 IAC 2-7-6(1)]

C.10 Compliance Monitoring [326 IAC 2-7-5(3)][326 IAC 2-7-6(1)]

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

Indiana Department of Environmental Management
Compliance Branch, Office of Air Quality
100 North Senate Avenue
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 the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

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

C.11 Monitoring Methods [326 IAC 3][40 CFR 60][40 CFR 63]

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

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

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

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

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

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

- (a) The Permittee prepared and submitted written emergency reduction plans (ERPs) consistent with safe operating procedures on December 16, 1996.
- (b) Upon direct notification by IDEM, OAQ that a specific air pollution episode level is in effect, the Permittee shall immediately put into effect the actions stipulated in the approved ERP for the appropriate episode level. [326 IAC 1-5-3]

C.14 Risk Management Plan [326 IAC 2-7-5(12)][40 CFR 68]

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

C.15 Response to Excursions or Exceedances [326 IAC 2-7-5][326 IAC 2-7-6]

- (a) Upon detecting an excursion or exceedance, the Permittee shall restore operation of the emissions unit (including any control device and associated capture system) to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions.
- (b) The response shall include minimizing the period of any startup, shutdown or malfunction and taking any necessary corrective actions to restore normal operation and prevent the likely recurrence of the cause of an excursion or exceedance (other than those caused by excused startup or shutdown conditions). Corrective actions may include, but are not limited to, the following:
 - (1) initial inspection and evaluation;
 - (2) recording that operations returned to normal without operator action (such as through response by a computerized distribution control system); or
 - (3) any necessary follow-up actions to return operation to within the indicator range, designated condition, or below the applicable emission limitation or standard, as applicable.
- (c) A determination of whether the Permittee has used acceptable procedures in response to an excursion or exceedance will be based on information available, which may include, but is not limited to, the following:
 - (1) monitoring results;
 - (2) review of operation and maintenance procedures and records; 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 maintain the following records:
 - (1) monitoring data;
 - (2) monitor performance data, if applicable; and
 - (3) corrective actions taken.

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

- (a) When the results of a stack test performed in conformance with Section C - Performance Testing, of this permit exceed the level specified in any condition of this permit, the Permittee shall take appropriate response actions. The Permittee shall submit a description of these response actions to IDEM, OAQ, within thirty (30) days of receipt of the test results. The Permittee shall take appropriate action to minimize excess emissions from the affected facility while the response actions are being implemented.
- (b) A retest to demonstrate compliance shall be performed within one hundred twenty (120) days of receipt of the original test results. Should the Permittee demonstrate to IDEM, OAQ that retesting in one hundred twenty (120) days is not practicable, IDEM, OAQ may extend the retesting deadline.

- (c) IDEM, OAQ reserves the authority to take any actions allowed under law in response to noncompliant stack tests.

The response action documents submitted pursuant to this condition do require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

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

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

- (a) In accordance with the compliance schedule specified in 326 IAC 2-6-3(b)(1), the Permittee shall submit by July 1 an emission statement covering the previous calendar year as follows:
- (1) starting in 2004 and every three (3) years thereafter, and
 - (2) any year not already required under (1) if the source emits volatile organic compounds or oxides of nitrogen into the ambient air at levels equal to or greater than twenty-five (25) tons during the previous calendar year.
- (b) The emission statement shall contain, at a minimum, the information specified in 326 IAC 2-6-4(c) and shall meet the following requirements:
- (1) Indicate estimated actual emissions of all pollutants listed in 326 IAC 2-6-4(a);
 - (2) Indicate estimated actual emissions of regulated pollutants as defined by 326 IAC 2-7-1(32) ("Regulated pollutant, which is used only for purposes of Section 19 of this rule") from the source, for purpose of fee assessment.

The statement must be submitted to:

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

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

- (c) The emission statement required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ on or before the date it is due.

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

- (a) Records of all required monitoring data, reports and support information required by this permit shall be retained for a period of at least five (5) years from the date of monitoring sample, measurement, report, or application. These records shall be physically present or electronically accessible at the source location for a minimum of three (3) years. The records may be stored elsewhere for the remaining two (2) years as long as they are available upon request. If the Commissioner makes a request for records to the Permittee, the Permittee shall furnish the records to the Commissioner within a reasonable time.
- (b) Unless otherwise specified in this permit, all record keeping requirements not already legally required shall be implemented within ninety (90) days of permit issuance.
- (c) If there is a reasonable possibility (as defined in 40 CFR 51.165(a)(6)(vi)(A), 40 CFR 51.165(a)(6)(vi)(B), 40 CFR 51.166(r)(6)(vi)(a), and/or 40 CFR 51.166(r)(6)(vi)(b)) that

a "project" (as defined in 326 IAC 2-2-1(qq) and/or 326 IAC 2-3-1(II)) at an existing emissions unit, other than projects at a source with a Plantwide Applicability Limitation (PAL), which is not part of a "major modification" (as defined in 326 IAC 2-2-1(ee) and/or 326 IAC 2-3-1(z)) may result in significant emissions increase and the Permittee elects to utilize the "projected actual emissions" (as defined in 326 IAC 2-2-1(rr) and/or 326 IAC 2-3-1(mm)), the Permittee shall comply with following:

- (1) Before beginning actual construction of the "project" (as defined in 326 IAC 2-2-1(qq) and/or 326 IAC 2-3-1(II)) at an existing emissions unit, document and maintain the following records:
 - (A) A description of the project.
 - (B) Identification of any emissions unit whose emissions of a regulated new source review pollutant could be affected by the project.
 - (C) A description of the applicability test used to determine that the project is not a major modification for any regulated NSR pollutant, including:
 - (i) Baseline actual emissions;
 - (ii) Projected actual emissions;
 - (iii) Amount of emissions excluded under section 326 IAC 2-2-1(rr)(2)(A)(iii) and/or 326 IAC 2-3-1 (mm)(2)(A)(iii); and
 - (iv) An explanation for why the amount was excluded, and any netting calculations, if applicable.
- (d) If there is a reasonable possibility (as defined in 40 CFR 51.165(a)(6)(vi)(A) and/or 40 CFR 51.166(r)(6)(vi)(a)) that a "project" (as defined in 326 IAC 2-2-1(qq) and/or 326 IAC 2-3-1(II)) at an existing emissions unit, other than projects at a source with a Plantwide Applicability Limitation (PAL), which is not part of a "major modification" (as defined in 326 IAC 2-2-1(ee) and/or 326 IAC 2-3-1(z)) may result in significant emissions increase and the Permittee elects to utilize the "projected actual emissions" (as defined in 326 IAC 2-2-1(rr) and/or 326 IAC 2-3-1(mm)), the Permittee shall comply with following:
 - (1) Monitor the emissions of any regulated NSR pollutant that could increase as a result of the project and that is emitted by any existing emissions unit identified in (1)(B) above; and
 - (2) Calculate and maintain a record of the annual emissions, in tons per year on a calendar year basis, for a period of five (5) years following resumption of regular operations after the change, or for a period of ten (10) years following resumption of regular operations after the change if the project increases the design capacity of or the potential to emit that regulated NSR pollutant at the emissions unit.

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

- (a) The Permittee shall submit the attached Quarterly Deviation and Compliance Monitoring Report or its equivalent. Any deviation from permit requirements, the date(s) of each deviation, the cause of the deviation, and the response steps taken must be reported. This report shall be submitted within thirty (30) days of the end of the reporting period. The Quarterly Deviation and Compliance Monitoring Report shall include the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).
- (b) The report required in (a) of this condition and reports required by conditions in Section D of this permit shall be submitted to:

Indiana Department of Environmental Management
Compliance Data Section, Office of Air Quality
100 North Senate Avenue
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) Unless otherwise specified in this permit, all reports required in Section D of this permit shall be submitted within thirty (30) days of the end of the reporting period. All reports do require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).
- (e) 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.
- (f) If the Permittee is required to comply with the recordkeeping provisions of (d) in Section C - General Record Keeping Requirements for any "project" (as defined in 326 IAC 2-2-1 (qq) and/or 326 IAC 2-3-1 (ll)) at an existing emissions unit, and the project meets the following criteria, then the Permittee shall submit a report to IDEM, OAQ:
 - (1) The annual emissions, in tons per year, from the project identified in (c)(1) in Section C- General Record Keeping Requirements exceed the baseline actual emissions, as documented and maintained under Section C- General Record Keeping Requirements (c)(1)(C)(i), by a significant amount, as defined in 326 IAC 2-2-1 (xx) and/or 326 IAC 2-3-1 (qq), for that regulated NSR pollutant, and
 - (2) The emissions differ from the preconstruction projection as documented and maintained under Section C - General Record Keeping Requirements (c)(1)(C)(ii).
- (g) The report for project at an existing emissions unit shall be submitted within sixty (60) days after the end of the year and contain the following:
 - (1) The name, address, and telephone number of the major stationary source.
 - (2) The annual emissions calculated in accordance with (d)(1) and (2) in Section C - General Record Keeping Requirements.
 - (3) The emissions calculated under the actual-to-projected actual test stated in 326 IAC 2-2-2(d)(3) and/or 326 IAC 2-3-2(c)(3).
 - (4) Any other information that the Permittee deems fit to include in this report.

Reports required in this part shall be submitted to:

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

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

Stratospheric Ozone Protection

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

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

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

SECTION D.1 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

- (a) Three (3) surface coating booths, constructed in 1978 and modified in 1997, identified as P-SC-01 (3a, 3b, and 3c), utilizing air assisted airless method of spraying with a maximum capacity of 193 pounds of paint per hour and 0.75 steel tank cars per hour, using three (3) dry filters for over spray control, with three paint oven heating units consisting of:
 - (1) Three (3) natural gas makeup air heaters rated at 7.387 MMBtu/hr each;
 - (2) Three (3) natural gas drying room heaters rated at 0.275 MMBtu/hr each;
 - (3) Three (3) natural gas drying room groups of catalytic infrared heaters each group rated at 3.24 MMBtu/hr;

Each booth exhausts to one of three (3) stacks, 3:a1, 3:a2 and 3:a3.

- (j) The paint application room, consisting of the following
 - (1) Building # 8 paint booth identified as P-SC-02;
 - (2) Stencil shop, identified as P-SC-04; and
 - (3) Building #8 jacket prime identified as P-SC-05.

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

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

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

- (a) Pursuant to 326 IAC 8-2-9 (Miscellaneous Metal Coating Operations), the volatile organic compound (VOC) content of extreme performance coatings applied to steel tank cars shall be limited to 3.5 pounds of VOC per gallon of coating less water delivered to the applicator.
- (b) Solvent sprayed from the application equipment during clean up or color changes shall be directed into containers. Such containers shall be closed as soon as such solvent spraying is complete, and the waste solvent shall be disposed of in such a manner that evaporation is minimized.

D.1.2 Emission Offset Limit [326 IAC 2-3]

- (a) Pursuant to CP089-7082-00332, issued on October 24, 1997 and revised through Part 70 Operating Permit T089-23442-00332, the VOC usage by the entire source shall be less than 125.4 tons of VOC per 12 consecutive month period where compliance is determined at the end of each month.
- (b) Pursuant to CP089-2369-00332, issued on March 29, 1995 and revised through Part 70 Operating Permit T089-23442-00332, the VOC usage from the paint application room, including clean-up solvents minus the amount of disposed of or recycled off-site, shall be limited to less than 24.5 tons per twelve (12) consecutive month period where compliance is determined at the end of each month. This usage limit is required to limit the potential to emit of VOC to less than 25 tons per 12 consecutive month period. Compliance with this limit ensures that 326 IAC 2-3 (Emission Offset) is not applicable.

D.1.3 Hazardous Air Pollutant (HAP) Limit [326 IAC 2-4.1][40 CFR Part 63.50][326 IAC 20-1]

Pursuant to CP089-7082 issued on October 24, 1997, the HAP usage in the three (3) paint booths (identified as P-SC-01) combined shall be less than 10 tons of a single HAP per 12 consecutive month period, and less than 25 tons of a combination of HAPs per 12 consecutive month period where compliance is determined at the end of each month. These usage limits are required to limit the potential to emit of a single HAP to less than 10 tons per 12 consecutive month period and a combination HAPs to less than 25 tons per 12 consecutive months period. Compliance with these limits ensure that 326 IAC 2-4.1 (New Source Toxics Control Rule) and 40 CFR Part 63, Subpart M are not applicable.

D.1.4 Particulate Matter (PM) Limit [326 IAC 6.8-1-2]

Pursuant to 326 IAC 6.8-1-2 (formerly 326 IAC 6-1-2), the allowable particulate emissions for the spray coating operations designated as P-SC-01 and the building # 8 paint booth application room, shall not exceed 0.03 grains per dry standard cubic feet of air per minute.

D.1.5 Preventive Maintenance Plan [326 IAC 2-7-4(c)(9)]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for this facility and any control devices.

Compliance Determination Requirements

D.1.6 Volatile Organic Compounds (VOC) [326 IAC 8-1-2][326 IAC 8-1-4][326 IAC 2-3]

- (a) Compliance with the VOC content and usage limitations contained in Conditions D.1.1(a) 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 in 326 IAC 8-1-4.
- (b) If the amount of VOC in the waste shipped offsite for recycling or disposal is deducted from the monthly VOC usage reported, the Permittee shall determine the VOC content of the waste shipped offsite using one or a combination of the following methods:
 - (1) On-Site Sampling
 - (A) VOC content shall be determined pursuant to 326 IAC 8-1-4(a)(3) by EPA Reference Method 24 and the sampling procedures in 326 IAC 8-1-4 or other methods as approved by the Commissioner.
 - (B) A representative sample of the VOC containing waste to be shipped offsite shall be analyzed within 90 days of the issuance of this Part 70 Operating Permit Renewal T089-23442-00332.
 - (C) If multiple cleanup solvent waste streams are collected and drummed separately, a sample shall be collected and analyzed from each solvent waste stream.
 - (D) A new representative sample shall be collected and analyzed whenever a change or changes occur(s) that could result in a cumulative 10% or more increase in the VOC content of the VOC containing waste. Such change could include, but is not limited to, the following:
 - (i) A change in coating selection or formulation, "as supplied" or "as applied", or a change in solvent selection or formulation, or
 - (ii) An operational change in the coating application or cleanup operations.

The new VOC content shall be used in calculating the amount of VOC shipped offsite, starting with the date that the change occurred. The sample shall be collected and analyzed within 30 days of the change.

- (2) Certified Waste Report: The VOC reported by analysis of an off-site waste processor may be used, provided the report certifies the amount of VOC in the waste.
- (3) Minimum Assumed VOC Content: The VOC content of the waste shipped offsite may be assumed to be equal to the VOC content of the material with the lowest VOC content that could be present in the waste, as determined using the "as supplied" and "as applied" VOC data sheets, for each month.
- (c) IDEM reserves the right to request a representative sample of the VOC-containing waste stream and conduct an analysis for VOC content.
- (d) Compliance with the VOC usage limitations contained in Condition D.1.2 shall be demonstrated within 30 days of the end of each month. This shall be based on the total volatile organic compound input for the previous month, minus the amount of VOC in the waste shipped out for recycling or disposal, and adding it to the previous eleven (11) months total VOC usage, minus the amount VOC in the waste shipped out for recycling or disposal, so as to arrive at the VOC usage for the most recent twelve (12) consecutive month period.
- (e) The VOC input for a month shall be calculated using the following equation:

$$\text{VOC input} = \text{SCL} - \text{SR}$$

Where:

SCL = The total amount of VOC, in tons, delivered to the coating applicators, including coatings, dilution solvents, and cleaning solvents; and

SR = The total amount of VOC, in tons, shipped out for either recycling or disposal, including coatings, dilution solvents, and cleaning solvents.

D.1.7 Hazardous Air Pollutants (HAPs)

Compliance with the HAP usage limitations in Condition D.1.3 shall be determined by one of the following:

- (a) The manufacturer's certified product data sheet.
- (b) The manufacturer's material safety data sheet.
- (c) An alternate method approved by IDEM, OAQ.

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

D.1.8 Particulate Matter (PM)

The dry filters for PM control shall be in place at all times when any one of the three (3) paint booths, P-SC-01 (3a, 3b, or 3c), or the building # 8 paint application room are in operation.

D.1.9 Monitoring

- (a) Daily inspections shall be performed to verify the placement, integrity and particle loading of the filters. To monitor the performance of the dry filters, weekly observations shall be made of the overspray from the surface coating booth stacks, S-SC-01 and the paint application room stack(s), 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 in accordance with Section C - Response to Excursions or Exceedances. Failure to take response steps in

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

- (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. Where there is a noticeable change in overspray emissions, or when evidence of overspray emissions are observed, the Permittee shall take reasonable response steps in accordance with Section C - Response to Excursions or Exceedances. Failure to take response steps in accordance with Section - Response to Excursions or Exceedances, shall be considered a deviation from this permit.

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

D.1.10 Record Keeping Requirements

- (a) To document compliance with Conditions D.1.1, D.1.2, and D.1.3, the Permittee shall maintain records in accordance with (1) through (7) below. Records maintained for (1) through (7) shall be taken monthly and shall be complete and sufficient to establish compliance with the VOC usage limits and/or the VOC and HAP emission limits established in Condition D.1.1, D.1.2, and D.1.3.
- (1) The VOC and HAP content of each coating material and solvent used.
 - (2) The amount of coating material and solvent 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; and
 - (B) Solvent usage records shall differentiate between those added to coatings and those used as cleanup solvents.
 - (3) The volume weighted VOC and HAP content of the coatings used for each month.
 - (4) The weight percent VOC and HAP content of the coatings used for each month.
 - (5) The cleanup solvent usage for each month.
 - (6) The total VOC and HAP input for each month.
 - (7) If the amount of VOC in waste material is being deducted from the VOC input as allowed in Condition D.1.2(b), then the following records shall be maintained:
 - (A) The amount of VOC containing waste shipped out to be recycled or disposed each month. If multiple cleanup solvent waste streams are collected and drummed separately, the amount shipped out shall be recorded separately for each used solvent stream.
 - (B) The VOC content of the waste and all records necessary to verify the amount and VOC content of the VOC containing waste shipped out for recycling or disposal.
 - (C) The weight of VOC input, minus the weight of VOC shipped out to be recycled or disposed, for each compliance period.
- (b) To document compliance with Condition D.1.9, the Permittee shall maintain a log of weekly over spray observations, daily and monthly inspections.
- (c) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

D.1.11 Reporting Requirements

A quarterly summary of the information to document compliance with Condition D.1.2 and D.1.3 shall be submitted to the addresses listed in Section C - General Reporting Requirements, of this permit, using the reporting forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the period being reported. The reports submitted by the Permittee do require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

SECTION D.2 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

- (b) One (1) grit blast, constructed in 1969, identified as P-PB-01, located in building #7, with a maximum design flow rate of 14.4 tons per hour, using two dust collectors as control, exhausting to stacks 2A and 2B.
- (c) One (1) rotoblast, constructed in 1968 and modified in 1994, identified as P-PB-02, located in building #7, with a maximum design flow rate of 16.3 tons per hour, using two (2) dust collectors rated at 45,000 ACFM each as control, each exhausting to stacks 6A and 6B.

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

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

D.2.1 Particulate Matter Limitations for Lake County [326 IAC 6.8]

- (a) Pursuant to 326 IAC 6.8-2-36 (formerly 326 IAC 6-1-10.1), the allowable particulate matter (PM10) emission rate from the grit blast operation, identified as P-PB-01, shall not exceed 0.01 grains per dry standard cubic foot and 9.90 pounds per hour.
- (b) Pursuant to 326 IAC 6.8-1-2(a) (formerly 326 IAC 6-1-2), the allowable particulate matter (PM10) emission rate from the rotoblast operation, identified as P-PB-02, shall not exceed 0.03 grains per dry standard cubic foot.

D.2.2 Particulate Matter Limitations [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the allowable particulate (PM) emission rate from the grit blast unit, identified as P-PB-01, shall not exceed 21.08 pounds per hour when operating at a process weight rate of 11.52 tons per hour. The pound per hour limitation was calculated with the following equation:

$$E = 4.10 P^{0.67}$$

Where E = rate of emission in pounds per hour; and
P = process weight rate in tons per hour

D.2.3 Particulate Matter Limitations [326 IAC 2-3]

- (a) The combined PM emissions from stacks No. 6A and No. 6B for the rotoblast operation, identified as P-PB-02, shall be limited to less than 5.70 lb/hr.
- (b) The combined PM10 emissions from stacks No. 6A and No. 6B for the rotoblast operation, identified as P-PB-02, shall be limited to less than 3.42 lb/hr.

Compliance with these emission limits for P-PB-02, shall limit the potential to emit PM to less than twenty-five (25) tons per year and the potential to emit PM10 to less than fifteen (15) tons per year, rendering the requirements of 326 IAC 2-3 (Emission Offset) not applicable.

D.2.4 Preventive Maintenance Plan [326 IAC 2-7-4(c)(9)]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for this facility and its control device.

Compliance Determination Requirements

D.2.5 Testing Requirements [326 IAC 2-7-6(1),(6)][326 IAC 2-1.1-11]

- (a) In order to demonstrate compliance with Condition D.2.2 and no later than April 21, 2011, the Permittee shall perform PM testing on the grit blast (P-PB-01) and rotoblast (P-PB-02) operations utilizing Methods 5 or 7 (40 CFR 60, Appendix A) for PM, or other methods as approved by the Commissioner. This test shall be repeated at least once every five (5) years from the date of this valid compliance demonstration.
- (b) In order to demonstrate compliance with Condition D.2.1, the Permittee shall perform PM 2.5 and PM10 testing on grit blast (P-PB-01) and rotoblast (P-PB-02) within 180 days of publication of the new or revised condensable PM test method(s) referenced in the U. S. EPA's Final Rule for Implementation of the New Source Review (NSR) Program for Particulate Matter Less Than 2.5 Micrometers (PM2.5), signed on May 8th, 2008. This testing shall be conducted utilizing methods as approved by the Commissioner. These tests shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. Testing shall be conducted in accordance with Section C - Performance Testing. PM10 and PM2.5 includes filterable and condensable PM.

D.2.6 Particulate Matter (PM) [326 IAC 2-3][326 IAC 6.8]

The dust collector for PM control shall be in operation at all times when the grit blast P-PB-01 or rotoblast P-PB-02 are in operation.

Compliance Monitoring Requirements [326 IAC 2-7-6(1)][326 IAC 2-7-5(1)][40 CFR 64]

D.2.7 Parametric Monitoring [40 CFR 64]

- (a) The Permittee shall record the pressure drop across the dust collectors used in conjunction with the grit blast process P-PB-01, at least once per day when the grit blast process is in operation. When for any one reading, the pressure drop across the dust collectors is outside the normal range of 2.0 and 8.0 inches of water or a range established during the latest stack test, the Permittee shall take reasonable steps in accordance with Section C - Response to Excursions or Exceedances. A pressure reading outside this range is not a deviation from this permit. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances, shall be considered a deviation from this permit.
- (b) The Permittee shall record the pressure drop across the dust collectors used in conjunction with the rotoblast process P-PB-02, at least once per day when the rotoblast process is in operation. When for any one reading, the pressure drop across the dust collectors is outside the normal range of 2.0 and 8.0 inches of water or a range established during the latest stack test, the Permittee shall take reasonable steps in accordance with Section C - Response to Excursions or Exceedances. A pressure reading outside this range is not a deviation from this permit. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances, shall be considered a deviation from this permit.
- (c) The instrument used for determining the pressure shall comply with Section C - Instrument Specifications, of this permit, shall be subject to approval by IDEM, OAQ, and shall be calibrated at least once every six (6) months.

D.2.8 Dust Collector Failure [40 CFR 64]

In the event that dust collector failure has been observed, the feed to the process shall be shut down immediately until the failed units have been repaired or replaced. The emission units shall be shut down no later than the completion of the processing of the material in the emissions unit. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions). Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances, shall be considered a deviation from this permit.

D.2.9 Visible Emissions Notations [40 CFR 64]

- (a) Visible emission notations of the grit blast P-PB-01 exhaust points shall be performed once per day during normal daylight operations. A trained employee shall record whether emissions are normal or abnormal.
- (b) Visible emission notations of the rotoblast P-PB-02 exhaust points shall be performed once per day during normal daylight operations. A trained employee shall record whether emissions are normal or abnormal.
- (c) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.
- (d) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.
- (e) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.
- (f) If abnormal emissions are observed, the Permittee shall take reasonable response steps in accordance with Section C - Response to Excursions or Exceedances. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances shall be considered a deviation from this permit. Observation of abnormal emissions that do not violate 326 IAC 6-4 (Fugitive Dust Emissions) or an applicable opacity limit is not a deviation from this permit.

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

D.2.10 Record Keeping Requirements

- (a) To document compliance with Condition D.2.7(a), the Permittee shall maintain a daily record the pressure drop across the dust collectors used in conjunction with the grit blast process. 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).
- (b) To document compliance with Condition D.2.7(b), the Permittee shall maintain a daily record the pressure drop across the dust collectors used in conjunction with the rotoblast process. 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) To document compliance with Condition D.2.7(a), the Permittee shall maintain a daily record of visible emission notations of the grit blast operation 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).
- (d) To document compliance with Condition D.2.9(b), the Permittee shall maintain a daily record of the visible emission notations of the rotoblast operation 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).
- (e) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

SECTION D.3 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

- (d) One (1) natural gas-fired normalizing furnace, constructed in 1993, identified as P-CB-01, with a maximum capacity of 20.925 MMBtu/hr, emissions are uncontrolled, exhausting to stack 29.
- (e) One (1) natural gas-fired stress furnace (North), constructed in 1969, identified as P-CB-02, with a maximum capacity of 33.0 MMBtu/hr as determined in a performance test, exhausting to stack 5B.
- (f) One (1) natural gas-fired stress furnace (South), constructed in 1969 and modified in 1993, identified as P-CB-03, with a maximum capacity of 40.0 MMBtu/hr as determined in a performance test, exhausting to stack 5A.

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

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

D.3.1 Particulate [326 IAC 6.8-2-36]

-
- (a) Pursuant to 326 IAC 6.8-2-36, natural gas stress furnaces P-CB-02 and P-CB-03 shall burn natural gas only.
 - (b) P-CB-01 shall burn natural gas only to ensure the particulate emission limitations of 326 IAC 6-2 and 326 IAC 6.8 do not apply.

SECTION D.4 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

- (g) One (1) grit blast operation (Exterior Blast), constructed in 1989, identified as P-PB-03, with a measured maximum design flow rate of 3.72 tons per hour, using a baghouse rated at 30,000 ACFM for control, exhausting to stack S-PB-03.
- (h) One (1) grit blast operation (Interior Blast), constructed in 1989, identified as P-PB-04, with a measured maximum design flow rate of 1.86 tons per hour, using a baghouse rated at 20,000 ACFM for control, exhausting to stack S-PB-04.

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

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

D.4.1 PM and PM10 Emission Limitations [326 IAC 2-3]

- (a) The combined PM emissions from the grit blast rooms, known as P-PB-03 and P-PB-04, shall be limited to less than 5.70 lb/hr from the stacks.
- (b) The combined PM10 emissions from the grit blast rooms, known as P-PB-03 and P-PB-04, shall be limited to less than 3.42 lb/hr from the stacks.

Compliance with these emission limits for P-PB-03 and P-PB-04, shall limit the potential to emit PM to less than twenty-five (25) tons per year and the potential to emit PM10 to less than fifteen (15) tons per year, rendering the requirements of 326 IAC 2-3 (Emission Offset) not applicable.

D.4.2 Particulate Matter Limitations for Lake County [326 IAC 6.8-1-2]

Pursuant to 326 IAC 6.8-1-2 (formerly 326 IAC 6-1-2), the allowable particulate emissions for blasting operations, P-PB-03 or P-PB-04, shall not exceed 0.03 grains per dry standard cubic feet of air.

D.4.3 Preventive Maintenance Plan [326 IAC 2-7-4(c)(9)]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for this facility and its control device.

Compliance Determination Requirements

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

- (a) In order to demonstrate compliance with Condition D.4.1 and no later than November 23, 2010, the Permittee shall perform PM testing for the two (2) grit blast operations (P-PB-03 and P-PB-04) utilizing Methods 5 or 7 (40 CFR 60, Appendix A) for PM, or other methods as approved by the Commissioner. This test shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. PM10 includes filterable and condensable PM10.
- (b) In order to demonstrate compliance with Condition D.4.1, the Permittee shall perform PM 2.5 and PM10 testing for the two (2) grit blast operations (P-PB-03 and P-PB-04) within 180 days of publication of the new or revised condensable PM test method(s) referenced in the U. S. EPA's Final Rule for Implementation of the New Source Review (NSR) Program for Particulate Matter Less Than 2.5 Micrometers (PM2.5), signed on May 8th, 2008. This testing shall be conducted utilizing methods as approved by the Commissioner. These tests shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. Testing shall be conducted in accordance with Section C - Performance Testing. PM10 and PM2.5 includes filterable and condensable PM.

D.4.5 Particulate Matter (PM) [326 IAC 2-3][326 IAC 6.8]

The baghouses for PM control shall be in operation at all times when grit blasters P-PB-03 or P-PB-04 are in operation.

Compliance Monitoring Requirements [326 IAC 2-7-6(1)][326 IAC 2-7-5(1)][40 CFR 64]

D.4.6 Visible Emissions Notations [40 CFR 64]

- (a) Visible emission notations of the two (2) grit blast operations (P-PB-03 and P-PB-04) stack exhausts 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 in accordance with Section C - Response to Excursions or Exceedances. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances shall be considered a deviation from this permit. Observation of abnormal emissions that do not violate 326 IAC 6-4 (Fugitive Dust Emissions) or an applicable opacity limit is not a violation from this permit.

D.4.7 Parametric Monitoring [40 CFR 64]

- (a) The Permittee shall record the pressure drop across the baghouses used in conjunction with the blasting processes P-PB-03 and P-PB-04, at least once per day when blasting processes are in operation. When for any one reading, the pressure drop across the baghouses is outside the normal range of 2.0 and 8.0 inches of water or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C - Response to Excursions or Exceedances. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances, shall be considered a deviation from this permit.
- (b) The instrument used for determining the pressure shall comply with Section C - Instrument Specifications, of this permit, shall be subject to approval by IDEM, OAQ, and shall be calibrated at least once every six (6) months.

D.4.8 Baghouse Failure [40 CFR 64]

In the event that baghouse failure has been observed, the feed to the process shall be shut down immediately until the failed units have been repaired or replaced. The emission unit shall be shut down no later than the completion of the processing of the material in the emission unit. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions). Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances, shall be considered a deviation from this permit.

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

D.4.9 Record Keeping Requirements

- (a) To document compliance with Conditions D.4.6, the Permittee shall maintain a daily record of visible emission notations of the stack exhaust of the grit blast rooms (P-PB-03 and P-PB-04). The Permittee shall include in its daily record when a visible emission notation is not taken and the reason for the lack of visible emission notation (e.g. the process did not operate that day).
- (b) To document compliance with Conditions D.4.7, the Permittee shall maintain a daily record of the pressure drop across the baghouse controlling each grit blast room (P-PB-03 and P-PB-04). The Permittee shall include in its daily record when a pressure drop reading is not taken and the reason for the lack of a pressure drop reading (e.g. the process did not operate that day).
- (c) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

SECTION D.5 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

- (i) Welding Operations, constructed in 1969 and modified in 1975 and 1989, identified as P-WD-01, consisting of the following:
 - (1) Shielded Metal Arc Welding (SMAW) consuming a maximum of 88,110 pounds per year of electrode.
 - (2) Submerged Arc Welding (SAW) consuming a maximum of 545,640 pounds per year of electrode.
 - (3) Gas Metal Arc Welding (GMAW) consuming a maximum of 248,777 pounds per year of electrode.
 - (4) Flux Core Arc Welding (FCAW) consuming a maximum of 573,120 pounds per year of electrode.

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

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

D.5.1 PM and PM10 Emission Limitations [326 IAC 2-3]

Usage of electrode in the welding operations, identified as P-WD-01, shall be not exceed:

- (1) 88,110 pounds of electrode per year for SMAW;
- (2) 545,640 pounds of electrode per year for SAW;
- (3) 248,777 pounds of electrode per year for GMAW; and
- (4) 573,120 pounds of electrode per year for FCAW.

Compliance with these usage limits for P-WD-01, shall limit the potential to emit PM to less than twenty-five (25) tons per year and the potential to emit PM10 to less than fifteen (15) tons per year, rendering the requirements of 326 IAC 2-3 (Emission Offset) not applicable.

D.5.2 Particulate Matter Limitations for Lake County [326 IAC 6.8-1-2]

Pursuant to 326 IAC 6.8-1-2 (formerly 326 IAC 6-1-2), the allowable particulate emissions for welding operations, identified as P-WD-01, shall not exceed 0.03 grains per dry standard cubic feet of air per minute.

D.5.3 Preventive Maintenance Plan [326 IAC 2-7-4(c)(9)]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for this facility and its control device.

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

D.5.4 Record Keeping Requirements

- (a) To document compliance with Conditions D.5.1, the Permittee shall maintain records of the amount and type of welding electrode used. Records shall include inventory usage records, purchase orders, invoices, and material safety data sheets (MSDS) necessary to verify the type and amount of electrode used.
- (b) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

SECTION D.6 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

- (a) Natural gas-fired combustion sources with heat input equal to or less than ten (10) million Btu per hour, specified as follows:
 - (1) One (1) boiler, constructed in 1987, identified as No. 4, with a maximum capacity of 6.28 MMBtu/hr. [326 IAC 6.8-2-36]
 - (2) One (1) boiler, identified as No. 8, constructed in 1991, with a maximum capacity 3.00 MMBtu/hr. [326 IAC 6.8-1-2(a)]
 - (3) One (1) boiler (Preheater for air dryers), constructed in 1991, identified as P-CB-08, with a maximum capacity of 0.85 MMBtu/hr. [326 IAC 6.8-1-2(a)]
- (b) Degreasing operations that do not exceed 145 gallons per 12 months. [326 IAC 8-3-2 and 326 IAC 8-3-5]
- (c) Grinding and machining operations controlled with fabric filters, scrubbers, mist collectors, wet collectors, and electrostatic precipitators with a design grain loading of less than or equal to 0.03 grains per actual cubic foot and a gas flow less than 4000 actual cubic feet per minute, including the following: deburring, buffing, polishing, abrasive blasting, pneumatic conveying and woodworking operations, identified as Small Parts Blast (P-PB-06). [326 IAC 6.8-1-2(a)]

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

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

D.6.1 Particulate [326 IAC 6.8-2-36]

Pursuant to 326 IAC 6.8-2-36, boiler No. 4 shall burn natural gas only.

D.6.2 Particulate [326 IAC 6.8-1-2(a)]

Pursuant to 326 IAC 6.8-1-2(a), the particulate matter emissions from grinding and machining operations identified as P-PB-05 and P-PB-06 shall not exceed 0.03 grain per dry standard cubic foot.

D.6.3 Volatile Organic Compounds [326 IAC 8-3-2]

Pursuant to 326 IAC 8-3-2 (Cold Cleaner Operations) for cold cleaning operations constructed after January 1, 1980, the owner or operator 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.

D.6.4 Volatile Organic Compounds [326 IAC 8-3-5]

- (a) Pursuant to 326 IAC 8-3-5(a) (Cold Cleaner Degreaser Operation and Control), the owner or operator of a cold cleaner degreaser facility 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 of 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.

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

**PART 70 OPERATING PERMIT
CERTIFICATION**

Source Name: Union Tank Car Company - Plant #1
Source Address: 151st Street and Railroad Avenue, East Chicago, Indiana 46312
Mailing Address: 300 West 151st Street, East Chicago, Indiana 46312
Part 70 Permit No.: T089-23442-00332

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

Please check what document is being certified:

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

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

Signature:

Printed Name:

Title/Position:

Phone:

Date:

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

**100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251
Phone: 317-233-0178
Fax: 317-233-6865**

**PART 70 OPERATING PERMIT
EMERGENCY OCCURRENCE REPORT**

Source Name: Union Tank Car Company - Plant #1
Source Address: 151st Street and Railroad Avenue, East Chicago, Indiana 46312
Mailing Address: 300 West 151st Street, East Chicago, Indiana 46312
Part 70 Permit No.: T089-23442-00332

This form consists of 2 pages

Page 1 of 2

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

A certification is not required for this report.

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

OFFICE OF AIR QUALITY COMPLIANCE DATA SECTION

Part 70 Quarterly Report

Source Name: Union Tank Car Company - Plant #1
Source Address: 151st Street and Railroad Avenue, East Chicago, Indiana 46312
Mailing Address: 300 West 151st Street, East Chicago, Indiana 46312
Part 70 Permit No.: T089-23442-00332
Facility: Entire Source
Parameter: VOC Usage
Limit: Less than 125.4 tons per twelve (12) consecutive month period where compliance is determined at the end of each month.

QUARTER : _____ YEAR: _____

Month	Column 1	Column 2	Column 1 + Column 2
	This Month	Previous 11 Months	12 Month Total
Month 1			
Month 2			
Month 3			

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

Submitted by: _____

Title / Position: _____

Signature: _____

Date: _____

Phone: _____

Attach a signed certification to complete this report.

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

OFFICE OF AIR QUALITY COMPLIANCE DATA SECTION

Part 70 Quarterly Report

Source Name: Union Tank Car Company - Plant #1
Source Address: 151st Street and Railroad Avenue, East Chicago, Indiana 46312
Mailing Address: 300 West 151st Street, East Chicago, Indiana 46312
Part 70 Permit No.: T089-23442-00332
Facility: Paint Application Room
Parameter: VOC Usage
Limit: Less than 24.5 tons VOC emitted per twelve (12) consecutive month period where compliance is determined at the end of each month.

QUARTER : _____ YEAR: _____

Month	Column 1	Column 2	Column 1 + Column 2
	This Month	Previous 11 Months	12 Month Total
Month 1			
Month 2			
Month 3			

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

Submitted by: _____

Title / Position: _____

Signature: _____

Date: _____

Phone: _____

Attach a signed certification to complete this report.

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

**OFFICE OF AIR QUALITY
 COMPLIANCE DATA SECTION**

Part 70 Quarterly Report

Source Name: Union Tank Car Company - Plant #1
 Source Address: 151st Street and Railroad Avenue, East Chicago, Indiana 46312
 Mailing Address: 300 West 151st Street, East Chicago, Indiana 46312
 Part 70 Permit No.: T089-23442-00332
 Facility: Three (3) Paint Booths (P-SC-01), identified as 3a, 3b and 3c
 Parameter: HAP Usage
 Limit: Less than ten (10) tons of a single HAP and less than twenty-five (25) tons of a combination of HAPs per twelve (12) consecutive month period where compliance is determined at the end of each month.

QUARTER : _____ YEAR: _____

Month	Column 1		Column 2		Column 1 + Column 2	
	This Month		Previous 11 Months		12 Month Total	
	Single HAP	Combined HAP	Single HAP	Combined HAP	Single HAP	Combined HAP
Month 1						
Month 2						
Month 3						

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

Submitted by: _____

Title / Position: _____

Signature: _____

Date: _____

Phone: _____

Attach a signed certification to complete this report.

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

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

Source Name: Union Tank Car Company - Plant #1
 Source Address: 151st Street and Railroad Avenue, East Chicago, Indiana 46312
 Mailing Address: 300 West 151st Street, East Chicago, Indiana 46312
 Part 70 Permit No.: T089-23442-00332

Months: _____ to _____ Year: _____

This report shall be submitted quarterly based on a calendar year. Any deviation from the requirements, the date(s) of each deviation, the probable cause of the deviation, and the response steps taken must be reported. 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".	
<input type="checkbox"/> NO DEVIATIONS OCCURRED THIS REPORTING PERIOD.	
<input type="checkbox"/> THE FOLLOWING DEVIATIONS OCCURRED THIS REPORTING PERIOD	
Permit Requirement (specify permit condition #)	
Date of Deviation:	Duration of Deviation:
Number of Deviations:	
Probable Cause of Deviation:	
Response Steps Taken:	
Permit Requirement (specify permit condition #)	
Date of Deviation:	Duration of Deviation:
Number of Deviations:	
Probable Cause of Deviation:	
Response Steps Taken:	

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: _____

Attach a signed certification to complete this report.



Union Tank Car Company
151st Street and Railroad Ave.
East Chicago, IN 46312

RECEIVED
JAN 24 2002
State of Indiana
Department of Environmental Management
Office of Air Quality

Fugitive Particulate Matter Control Plan

Union Tank Car Company
Plant 1
East Chicago, IN

Permit No.: T089-7732-00332

Submitted By:
Union Tank Car Company

UTC Plant 1 Fugitive Dust Plan

(A) The name and address of the source and location, if the source is located on another source's property.

Union Tank Car, Company
151st Street and Railroad Ave
East Chicago, IL 46312

(B) The name and address, if different from that of the source, of the owner or operator responsible for the execution of the plan.

Same

Union Tank Car Company

(C) Identification of the facilities or operations listed in subsection (a)(1) and those affected by section 10.1 of this rule that exist at the source.

- *Paved roads and parking lots*
The shop has mostly paved roads and several paved employee parking lots.
- *Unpaved roads and parking lots*
The shop has some unpaved roadways, storage areas and two unpaved employee parking areas.
- *Material transfer*
Applicable if fugitive PM emissions are created during refuse container replacement, refuse transfer or transfer of manufacturing material in storage yards.
- *Wind erosion from storage piles and exposed areas*
Small storage piles are present on the plant facility. The three piles are road salt, road sand and reclaimed gravel-asphalt for road fill. The salt pile is in an enclosed and covered container. The road fill and road sand will be removed or covered.
- *Material transportation activities*
Not applicable
- *Material processing facilities with capacity equal to or greater than ten (10) tons per hour.*
Not applicable
- *Dust handling equipment*
Water hose and contractor supplied street cleaner.
- *Any other facility or operation with a potential to emit fugitive particulate matter and not included in this subsection.*
Gravel cover on structure roofs.

(D) A map showing the location of all unpaved roads, paved roads, parking lots, storage piles, material processing facilities, dust handling equipment, material transfer points and waste disposal and reclamation sites.

UTC Plant 1 Fugitive Dust Plan

Please see attached map.

(E) A full description of the facilities on the map, including the following information where applicable:

- (i) The road lengths and widths, average daily traffic, surface silt loading, classification of vehicle traffic, and other data necessary to estimate PM₁₀ emissions from paved and unpaved roads and parking lots.

Fugitive Dust Areas

Description	Total Area* Ft ²	Number of vehicles	Vehicle Type	weight of vehicle (tons)	Average Daily Traffic	Silt Loading
Paved road ways	83,402	175	Heavy trucks and Passenger	1 to 25	5 trucks 60+ passenger	0.23 lb/ft ²
Paved parking areas	86,021	150	Passenger	1 to 2	150	0.23 lb/ft ²
Un-paved parking areas	93,330	75	Passenger	1 to 2	75	0.38 lb/ft ²
Non-traffic gravel area [†]	354,900	0	NA	0	0	0.38 lb/ft ²
Roof areas	678,662	NA	NA	0	0	NA
Piles	NA	NA	NA	0	0	NA

*See attached sheet, "Area Calculation" on individual surface areas at the facility

[†]Area includes the storage yards and switchyards. Traffic is generally less than five (5) vehicles per-day for parts transfer. Rail traffic is not considered.

(ii) A description of each storage pile, including the type of material in the pile, its moisture content, the silt content, the throughput, and the equipment used to load onto and load out of the storage piles.

UTC E.C. Plant One has three storage piles:

- 1) Winter road salt (approximately 6 cubic yard). It is in an enclosed bin with a heavy rubberized canvas cover. Low moisture and silt content. Material is transferred using a small front end loader transported by spreader truck. Material is applied to the road ways in the plant proper at ½ pound per square yard for de-icing.
- 2) Reclaimed road aggregate and asphalt mix (approximately 30 cubic yards). Used for fill in the gravel areas of the plant property. This material is not covered, but is semi-solidified from the asphalt content. This material will be covered with tarps or removed. Silt content is minimal since the bitumen content of the piles has solidified.
- 3) Small sand pile (approximately 2 cubic yards) for winter road use. It is uncovered. The pile will be used this winter for ice control within the plant proper and will not be replenished.

UTC Plant 1 Fugitive Dust Plan

(iii) A complete description of the material processing facilities on the plant property, including a material flow diagram of the processing lines, the rated capacity of each piece of equipment, and the existing control equipment and their efficiencies, including

See attached document and facility map.

(iv) A complete description of the material transfer, in-plant transportation, and dust handling equipment. Material transfer operations shall include, at a minimum, those operations contained in subsection (c)(13).

- The shop will employ water spray (as needed) to control fugitive PM emissions during loading and unloading in storage yards.
- The shop has on retainer a street sweeper for paved areas of the facility.

(v) A complete description of all other fugitive particulate matter emitting facilities not covered in this clause.

Rock and gravel roofing areas on structures.

(F) The description of the proposed control measures and practices that the source will employ to achieve compliance with the emission limitations and data that proves its effectiveness.

Proposed Control Measures

A street sweeper will periodically clean paved roadways and parking areas (weather permitting) to control paved road silt. Unpaved parking areas will be limited to the employee parking traffic only, but will remain as unpaved areas. Unpaved yard storage will remain as such. Traffic to these areas is currently restricted to specific material yard vehicles. Fugitive PM will be prevented in parts storage yards by applying water as dictated by need, weather conditions and safety.

Piles will be covered with tarps or removed out right.

Roofing areas are being replaced with rubberized material. 200,000 square feet of rock and gravel roofing has been removed in the last 3 years. The remaining rock and gravel roofing will be removed as work continues to proceed with roof repairs and replacement.

(G) A list of the conditions that will prevent control measures and practices from being applied and alternative control practices and measures that will achieve compliance with the emission limitations.

- Ice or snow cover will prevent use of street sweeping of roadways and parking areas.
- Alternative measures will not be required.

(H) A schedule for achieving compliance with the provisions of the control plan. The schedule shall specify the time required to award necessary contracts and the time required to begin and complete construction and installation.

- Contractors and equipment are already available, at the writing of this plan, for all roadways and parking areas.

UTC Plant 1 Fugitive Dust Plan

- Piles will be removed or covered by May 1, 2002.
- Roof areas of gravel are currently being replaced. Work is expected to continue for the foreseeable future.

(4) The source shall keep the following documentation to show compliance with each of its control measures and control practices:

All applicable documentation required by 326 IAC 6-1 section 11.1 part (e)(4)(A through G) shall be collected, reported on and copies retained by Union Tank Car Company.

Calculations

Calculations for the Silt Load of Traffic and Non-traffic Areas of UTC's Plant One

East Chicago, Indiana

Grass Areas		No Traffic Areas		Gravel Areas	
grass area bldg 1	2 5.7	130 370.5	14 1.7	910 110.5	
	Area-->	42,588 ft ²		Area-->	100,555 ft ²
grass are bldg 3	3.4 1.5	221 97.5	26 1.1	1690 71.5	
	Area-->	21,548 ft ²		Area-->	120,835 ft ²
Small knoll by hr park	0.9 0.6	58.5 39	5.5 2.9	357.5 188.5	
	Area-->	2,282 ft ²		Area-->	67,389 ft ²
	1.1 0.6	71.5 39	2.5 2.9	162.5 188.5	
	Area-->	2,789 ft ²		Area-->	30,631 ft ²
side walk	17 0.1	1105 6.5	12 0.7	780 45.5	
	Area-->	7,183 ft ²		Area-->	35,490 ft ²
Total Natural cover		62,023 ft²		Total Gravel Area	354,900 ft²
Roof Areas		Roof Areas		Roof Areas	
Roof totals	18 7.4	1170 481			
	Area-->	562,770 ft ²			
	8.3 1.5	539.5 97.5			
	Area-->	52,601 ft ²			
Other Buildings Roof Areas		63,291 ft ²			
			TOTAL		678,662

ATTACHMENT: Facilities Description and Process Description

- A. Paved roads and parking lots
 - Paved roads and material storage areas around plant buildings
 - Paved parking lots and parking areas

- B. Unpaved areas, roads and parking lots
 - Outer boundaries of some roadways
 - Rail yards
 - Unpaved material storage areas
 - Gravel parking areas
 - Dirt access road adjacent to CSX property; for emergency or utility access-not regularly traveled

- C. Material Transfer
 - 2 overhead cranes in Steel yard rated at 10 tons
 - 1 overhead crane rated at 12 tons
 - Various fork trucks including one rated up to 15 tons
 - 2 mobile cranes rated at 30,000 lbs.
 - Spent dust from grit blasting is collected in covered containers and hauled for disposal.

- D. Wind erosion from storage piles and exposed areas
 - Road aggregate storage piles
 - Parts storage yards

- E. Material transportation areas
 - All manufacturing materials once out of gravel storage areas are transported on paved surfaces.

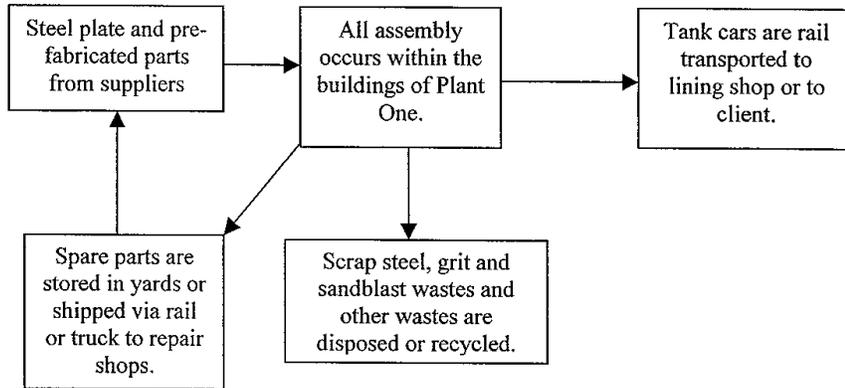
- F. Material processing facilities with capacity equal to or greater than ten (10) tons per hour
 - The primary material used at this facility is steel. UTC does not fit the definition of "Material processing facilities" as defined in Sec. 11.1 (c)(12).

- G. Dust handling equipment
 - Baghouses on grit blast systems. The dust materials removed from these are accounted for above, in "Material Transfer".

- H. Any other facility or operation with a potential to emit fugitive particulate matter and not included in this subsection.
 - Roof top gravel areas

Initial raw materials and pre-assembled part used in the over-all fabrication of the railroad tank cars are generally stored in the outside areas of the facility. All fabrication activities occur within the buildings and shops of the UTC facility. Rough products are transported via rail and have no further direct contact or transport over paved or unpaved surfaces.

Material and Process Flow Chart



Indiana Department of Environmental Management Office of Air Quality

Addendum to the Technical Support Document (ATSD) for a Part 70 Operating Permit Renewal

Source Background and Description

Source Name:	Union Tank Car Company - Plant #1
Source Location:	151st Street and Railroad Avenue East Chicago, Indiana 46312
County:	Lake County
SIC Code:	3743
Operation Permit No.:	T 089-23442-00332
Permit Reviewer:	David J. Matousek

On July 17, 2008, the Office of Air Quality (OAQ) had a notice published in the Times in Munster, Indiana and the Post Tribune in Merrillville, Indiana relating to the renewal of a Part 70 Operating Permit, issued on March 31, 2003, for Union Tank Car Company - Plant #1 located at 151st Street and Railroad Avenue, East Chicago, Indiana 46312. The notice stated that the OAQ proposed to issue a Part 70 Operating Permit Renewal for this source and provided information on how the public could review the proposed permit and other documentation. Finally, the notice informed interested parties that there was a period of thirty (30) days to provide comments on whether or not this permit should be issued as proposed.

Comments and Responses

IDEM did not receive written comments from the public on the draft Part 70 Operating Permit Renewal during the public comment period. However, IDEM, OAQ has decided to make additional revisions to the permit. The Technical Support Document (TSD) is used by IDEM, OAQ for historical purposes and will not be updated, but the Permit will have the updated changes. The comments and revised permit language are provided below with deleted language as ~~strikeouts~~ and new language **bolded**. The proposed changes follow:

Change #1

U.S. EPA, in the Federal Register Notice 70 FR 943 dated January 5, 2005, has designated Lake County as nonattainment for PM_{2.5}. On March 7, 2005 the Indiana Attorney General's Office, on behalf of IDEM, filed a law suit with the Court of Appeals for the District of Columbia Circuit challenging U.S. EPA's designation of nonattainment areas without sufficient data. 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 New Source Review Rule for PM_{2.5} promulgated on May 8th, 2008, and effective on July 15th 2008. Therefore, direct PM_{2.5} and SO₂ emissions were reviewed pursuant to the requirements of Nonattainment New Source Review, 326 IAC 2-1.1-5. In addition, the testing requirements for the grit blast units (P-PB-01, P-PB-03 and P-PB-04) and the rotoblast (P-PB-02) have been revised. PM testing for these units is unchanged. However, the PM₁₀ testing requirement has been separated out and a new PM_{2.5} testing requirement has been added as a result of the New Source Review Rule for PM_{2.5}. Revisions to the draft permit are shown below:

D.2.5 Testing Requirements [326 IAC 2-7-6(1),(6)][326 IAC 2-1.1-11]

~~No later than April 21, 2011, the Permittee shall perform PM and PM₁₀ testing on the grit blast (P-PB-01) and rotoblast (P-PB-02) operations utilizing Methods 5 or 7 (40 CFR 60, Appendix A) for PM and Methods 201 or 201A and 202 (40 CFR 51, Appendix M) for PM₁₀, or other methods as approved by the Commissioner. This test shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. PM₁₀ includes filterable and condensable PM₁₀.~~

- (a) **In order to demonstrate compliance with Condition D.2.2 and no later than April 21, 2011, the Permittee shall perform PM testing on the grit blast (P-PB-01) and rotoblast (P-PB-02) operations utilizing Methods 5 or 7 (40 CFR 60, Appendix A) for PM, or other methods as approved by the Commissioner. This test shall be repeated at least once every five (5) years from the date of this valid compliance demonstration.**
- (b) **In order to demonstrate compliance with Condition D.2.1, the Permittee shall perform PM 2.5 and PM10 testing on grit blast (P-PB-01) and rotoblast (P-PB-02) within 180 days of publication of the new or revised condensable PM test method(s) referenced in the U. S. EPA's Final Rule for Implementation of the New Source Review (NSR) Program for Particulate Matter Less Than 2.5 Micrometers (PM2.5), signed on May 8th, 2008. This testing shall be conducted utilizing methods as approved by the Commissioner. These tests shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. Testing shall be conducted in accordance with Section C - Performance Testing. PM10 and PM2.5 includes filterable and condensable PM.**

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

~~No later than November 23, 2010, the Permittee shall perform PM and PM10 testing for the two (2) grit blast operations (P-PB-03 and P-PB-04) utilizing Methods 5 or 7 (40 CFR 60, Appendix A) for PM and Methods 201 or 201A and 202 (40 CFR 51, Appendix M) for PM10, or other methods as approved by the Commissioner. This test shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. PM10 includes filterable and condensable PM10.~~

- (a) **In order to demonstrate compliance with Condition D.4.1 and no later than November 23, 2010, the Permittee shall perform PM testing for the two (2) grit blast operations (P-PB-03 and P-PB-04) utilizing Methods 5 or 7 (40 CFR 60, Appendix A) for PM, or other methods as approved by the Commissioner. This test shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. PM10 includes filterable and condensable PM10.**
- (b) **In order to demonstrate compliance with Condition D.4.1, the Permittee shall perform PM 2.5 and PM10 testing for the two (2) grit blast operations (P-PB-03 and P-PB-04) within 180 days of publication of the new or revised condensable PM test method(s) referenced in the U. S. EPA's Final Rule for Implementation of the New Source Review (NSR) Program for Particulate Matter Less Than 2.5 Micrometers (PM2.5), signed on May 8th, 2008. This testing shall be conducted utilizing methods as approved by the Commissioner. These tests shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. Testing shall be conducted in accordance with Section C - Performance Testing. PM10 and PM2.5 includes filterable and condensable PM.**

Change #2

When the U.S. EPA's New Source Review Rule for PM2.5 promulgated on May 8th, 2008 became effective on July 15th 2008, the TSD section for the County Attainment Status for PM2.5 on page 8 of 19 of the TSD required updating. However, no changes have been made to the TSD because the OAQ prefers that the Technical Support Document reflect the permit that was on public notice. Changes to the permit or technical support material that occur after public notice are documented in this Addendum to the Technical Support Document. This accomplishes the desired result of ensuring that these types of concerns are documented and part of the record regarding this permit decision. Revisions to this section of the TSD are shown below:

- (b) PM2.5
~~U.S. EPA, in the Federal Register Notice 70 FR 943 dated January 5, 2005, has designated Lake County as nonattainment for PM2.5. On March 7, 2005, the Indiana Attorney General's Office, on behalf of IDEM, filed a law suit with the Court of Appeals for the District of Columbia Circuit challenging U.S. EPA's designation of nonattainment areas without sufficient data. 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 guidance to regulate PM10 emissions as a surrogate for PM2.5 emissions pursuant to the requirements of Nonattainment New Source Review, 326 IAC 2-1.1-5.~~

U.S. EPA, in the Federal Register Notice 70 FR 943 dated January 5, 2005, has designated Lake County as nonattainment for PM2.5. On March 7, 2005 the Indiana Attorney General's Office, on behalf of IDEM, filed a law suit with the Court of Appeals for the District of Columbia Circuit challenging U.S. EPA's designation of nonattainment areas without sufficient data. 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 New Source Review Rule for PM2.5 promulgated on May 8th, 2008, and effective on July 15th 2008. Therefore, direct PM2.5 and SO2 emissions were reviewed pursuant to the requirements of Nonattainment New Source Review, 326 IAC 2-1.1-5. See the State Rule Applicability – Entire Source section.

Change #3

When the U.S. EPA's New Source Review Rule for PM2.5 promulgated on May 8th, 2008 became effective on July 15th 2008, the TSD section for State Rule Applicability - Entire Source on page 12 of 19 of the TSD required updating. However, no changes have been made to the TSD because the OAQ prefers that the Technical Support Document reflect the permit that was on public notice. Changes to the permit or technical support material that occur after public notice are documented in this Addendum to the Technical Support Document. This accomplishes the desired result of ensuring that these types of concerns are documented and part of the record regarding this permit decision. Revisions to this section of the TSD are shown below:

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

This existing stationary source is minor for Nonattainment NSR because the emissions of PM10, a surrogate for PM2.5, **and SO2 a precursor for PM2.5, is are** less than one hundred (<100) tons per year. The source does not have any Nonattainment NSR minor limits.

Change #4

When the U.S. EPA's New Source Review Rule for PM2.5 promulgated on May 8th, 2008 became effective on July 15th 2008, the TSD section for Compliance Determination and Monitoring Requirements on page 16 of 19 of the TSD for PM and PM10 testing required updating. However, no changes have been made to the TSD because the OAQ prefers that the Technical Support Document reflect the permit that was on public notice. Changes to the permit or technical support material that occur after public notice are documented in this Addendum to the Technical Support Document. This accomplishes the desired result of ensuring that these types of concerns are documented and part of the record regarding this permit decision. Revisions to this section of the TSD are shown below:

- (2) Grit blast operation P-PB-01 and the rotoblast operation P-PB-02 have applicable compliance determination conditions as specified below:

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

~~No later than April 21, 2011, the Permittee shall perform PM and PM10 testing on the grit blast (P-PB-01) and rotoblast (P-PB-02) operations utilizing Methods 5 or 7 (40 CFR 60, Appendix A) for PM and Methods 201 or 201A and 202 (40 CFR 51, Appendix M) for PM10, or other methods as approved by the Commissioner. This test shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. PM10 includes filterable and condensable PM10.~~

- (a) In order to demonstrate compliance with Condition D.2.2 and no later than April 21, 2011, the Permittee shall perform PM testing on the grit blast (P-PB-01) and rotoblast (P-PB-02) operations utilizing Methods 5 or 7 (40 CFR 60, Appendix A) for PM, or other methods as approved by the Commissioner. This test shall be repeated at least once every five (5) years from the date of this valid compliance demonstration.
- (b) In order to demonstrate compliance with Condition D.2.1, the Permittee shall perform PM 2.5 and PM10 testing on grit blast (P-PB-01) and rotoblast (P-PB-02) within 180 days of publication of the new or revised condensable PM test method(s) referenced in the U. S. EPA's Final Rule for Implementation of the New Source Review (NSR) Program for Particulate Matter Less Than 2.5 Micrometers (PM2.5), signed on May 8th, 2008. This testing shall be conducted utilizing methods as approved by the Commissioner. These tests shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. Testing shall be conducted in accordance with Section C - Performance Testing. PM10 and PM2.5 includes filterable and condensable PM.

...

- (3) Grit blast operation P-PB-03 and grit blast operation P-PB-04 have applicable compliance determination conditions as specified below:

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

~~No later than November 23, 2010, the Permittee shall perform PM and PM10 testing for the two (2) grit blast operations (P-PB-03 and P-PB-04) utilizing Methods 5 or 7 (40 CFR 60, Appendix A) for PM and Methods 201 or 201A and 202 (40 CFR 51, Appendix M) for PM10, or other methods as approved by the Commissioner. This test shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. PM10 includes filterable and condensable PM10.~~

- (a) In order to demonstrate compliance with Condition D.4.1 and no later than November 23, 2010, the Permittee shall perform PM testing for the two (2) grit blast operations (P-PB-03 and P-PB-04) utilizing Methods 5 or 7 (40 CFR 60, Appendix A) for PM, or other methods as approved by the Commissioner. This test shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. PM10 includes filterable and condensable PM10.
- (b) In order to demonstrate compliance with Condition D.4.1, the Permittee shall perform PM 2.5 and PM10 testing for the two (2) grit blast operations (P-PB-03 and P-PB-04) within 180 days of publication of the new or revised condensable PM test method(s) referenced in the U. S. EPA's Final Rule for Implementation of the New Source Review (NSR) Program for Particulate Matter Less Than 2.5 Micrometers (PM2.5), signed on May 8th, 2008. This testing shall be conducted utilizing methods as approved by the Commissioner. These tests shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. Testing shall be conducted in accordance with Section C - Performance Testing. PM10 and PM2.5 includes filterable and condensable PM.

...

Indiana Department of Environmental Management
Office of Air Quality

Technical Support Document (TSD) for a Part 70 Operating Permit Renewal

Source Background and Description

Source Name:	Union Tank Car Company - Plant #1
Source Location:	151st Street and Railroad Avenue East Chicago, Indiana 46312
County:	Lake County
SIC Code:	3743
Permit Renewal No.:	T089-23442-00332
Permit Reviewer:	David J. Matousek

The Office of Air Quality (OAQ) has reviewed the operating permit renewal application from Union Tank Car Company - Plant #1 relating to the operation of a stationary steel railroad car manufacturing plant.

History

On July 31, 2006, Union Tank Car Company - Plant #1 submitted an application to the OAQ requesting a significant permit modification to Part 70 Operating Permit T089-7732-00332, issued on March 31, 2003. On April 26, 2007, this modification application was accepted by the Indiana Department of Environmental Management as a renewal application.

Permitted Emission Units and Pollution Control Equipment

(a) Three (3) surface coating booths, constructed in 1978 and modified in 1997, identified as P-SC-01 (3a, 3b, and 3c), utilizing air assisted airless method of spraying with a maximum capacity of 193 pounds of paint per hour and 0.75 steel tank cars per hour, using three (3) dry filters for over spray control, with three paint oven heating units consisting of:

- (1) Three (3) natural gas makeup air heaters rated at 7.387 MMBtu/hr each;
- (2) Three (3) natural gas drying room heaters rated at 0.275 MMBtu/hr each;
- (3) Three (3) natural gas drying room groups of catalytic infrared heaters each group rated at 3.24 MMBtu/hr;

Each booth exhausts to one of three (3) stacks, 3:a1, 3:a2 and 3:a3.

- (b) One (1) grit blast, constructed in 1969, identified as P-PB-01, located in building #7, with a maximum design flow rate of 14.4 tons per hour, using two dust collectors as control, exhausting to stacks 2A and 2B.
- (c) One (1) rotoblast, constructed in 1968 and modified in 1994, identified as P-PB-02, located in building #7, with a maximum design flow rate of 16.3 tons per hour, using two (2) dust collectors rated at 45,000 ACFM each as control, each exhausting to stacks 6A and 6B.
- (d) One (1) natural gas-fired normalizing furnace, constructed in 1993, identified as P-CB-01, with a maximum capacity of 20.925 MMBtu/hr, emissions are uncontrolled, exhausting to stack 29.
- (e) One (1) natural gas-fired stress furnace (North), constructed in 1969, identified as P-CB-02, with a maximum capacity of 33.0 MMBtu/hr as determined in a performance test, exhausting to stack 5B.
- (f) One (1) natural gas-fired stress furnace (South), constructed in 1969 and modified in 1993, identified as P-CB-03, with a maximum capacity of 40.0 MMBtu/hr as determined in a performance test, exhausting to stack 5A.

- (g) One (1) grit blast operation (Exterior Blast), constructed in 1989, identified as P-PB-03, with a measured maximum design flow rate of 3.72 tons per hour, using a baghouse rated at 30,000 ACFM for control, exhausting to stack S-PB-03.
- (h) One (1) grit blast operation (Interior Blast), constructed in 1989, identified as P-PB-04, with a measured maximum design flow rate of 1.86 tons per hour, using a baghouse rated at 20,000 ACFM for control, exhausting to stack S-PB-04.
- (i) Welding Operations, constructed in 1969 and modified in 1975 and 1989, identified as P-WD-01, consisting of the following:
 - (1) Shielded Metal Arc Welding (SMAW) consuming a maximum of 88,110 pounds per year of electrode.
 - (2) Submerged Arc Welding (SAW) consuming a maximum of 545,640 pounds per year of electrode.
 - (3) Gas Metal Arc Welding (GMAW) consuming a maximum of 248,777 pounds per year of electrode.
 - (4) Flux Core Arc Welding (FCAW) consuming a maximum of 573,120 pounds per year of electrode.
- (j) The paint application room, consisting of the following:
 - (1) Building # 8 paint booth identified as P-SC-02;
 - (2) Stencil shop, identified as P-SC-04; and
 - (3) Building #8 jacket prime identified as P-SC-05.

Emission Units and Pollution Control Equipment Constructed and/or Operated without a Permit

All emission units and pollution control equipment is currently permitted. The welding operations listed as CWOP/OWOP in the initial Part 70 Operating Permit are no longer at the source. Welding operations have existed at this source since its initial construction.

Emission Units and Pollution Control Equipment Removed From the Source

- (a) Coatings development lab, identified as P-SC-06.
- (b) Adhesive application area, identified as P-SC-03.

Insignificant Activities

- (a) Natural gas-fired combustion sources with heat input equal to or less than ten (10) million Btu per hour, specified as follows:
 - (1) One (1) boiler, constructed in 1987, identified as No. 4, with a maximum capacity of 6.28 MMBtu/hr. [326 IAC 6.8-2-36]
 - (2) One (1) boiler, identified as No. 8, constructed in 1991, with a maximum capacity 3.00 MMBtu/hr. [326 IAC 6.8-1-2(a)]
 - (3) One (1) boiler (Preheater for air dryers), constructed in 1991, identified as P-CB-08, with a maximum capacity of 0.85 MMBtu/hr. [326 IAC 6.8-1-2(a)]

- (b) Degreasing operations that do not exceed 145 gallons per 12 months. [326 IAC 8-3-2 and 326 IAC 8-3-5]
- (c) Grinding and machining operations controlled with fabric filters, scrubbers, mist collectors, wet collectors, and electrostatic precipitators with a design grain loading of less than or equal to 0.03 grains per actual cubic foot and a gas flow less than 4000 actual cubic feet per minute, including the following: deburring, buffing, polishing, abrasive blasting, pneumatic conveying and woodworking operations, identified as Small Parts Blast (P-PB-06). [326 IAC 6.8-1-2(a)]

Existing Approvals

Since the issuance of the Part 70 Operating Permit (T089-23442-00332) on March 31, 2003, the source has constructed or has been operating under the following approvals as well:

- (a) Administrative Amendment No. 089-21305-00332 issued on June 14, 2005; and
- (b) Administrative Amendment No. 089-21349-00332 issued on June 27, 2005.

All terms and conditions of previous permits issued pursuant to permitting programs approved into the state implementation plan have been either incorporated as originally stated, revised, or deleted by this permit. All previous registrations and permits are superseded by this permit.

The following terms and conditions from previous approvals have been revised in this Part 70 Operating Permit Renewal:

- (a) To minimize future amendments to the issued Part 70 Operating Permits, the OAQ decided to delete the name and/or title of the Responsible Official (RO) in Section A.1 - General Information, of the permit. However, OAQ will still be evaluating if a change in RO meets the criteria specified in 326 IAC 2-7-1(34). In addition, Section A.1 has been revised to show the current attainment status for Lake County and current source status.
- (b) All references to IDEM, OAQ's and the Northwest Regional Office mailing addresses have been revised.
- (c) All references to IDEM, OAQ's and the Northwest Regional Office telephone and fax numbers have been revised.
- (d) Minor formatting, spelling and typographical errors have been corrected throughout the permit.
- (e) The descriptive information in Sections A.2 and A.3 of the Part 70 Operating Permit has been revised at the request of the Permittee.
- (f) To clarify the permit term and the term of the conditions, original Conditions B.2 – Permit Term, B.14 – Prior Permits Superseded, and B.17 – Permit Renewal have been modified. Additionally, a new Section B condition, B.3 – Term of Conditions has been added.
- (g) IDEM has rearranged the permit conditions such that original Condition B.4 – Termination of Right to Operate is now Condition B.14.
- (h) Instructions for the original Condition B.10 – Annual Compliance Certification (ACC), now Condition B.9, have been revised. The emission statement reporting requirements changed. The submission date for the ACC will continue to depend on which county the source is located.
- (i) IDEM has determined that the Permittee is not required to keep records of all preventive maintenance. However, where the Permittee seeks to demonstrate that an emergency has occurred, the Permittee must provide, upon request records of preventive maintenance in order

to establish that the lack of proper maintenance did not cause or contribute to the deviation. Therefore, IDEM has deleted paragraph (b) of original Condition B.11 – Preventive Maintenance Plan and has amended original Condition B.12 – Emergency Provisions.

- (j) For clarification purposed, Condition B.20 - Operational Flexibility has been revised.
- (k) Indiana has incorporated the credible evidence provision in 326 IAC 1-1-6. This rule became effective on March 16, 2005; therefore, the condition reflecting this rule will be incorporated into the permit as condition B.25.
- (l) 326 IAC 6-1 has been recodified. The rule provisions were incorporated into two articles, 326 IAC 6.5 and 326 IAC 6.8. All non-Lake County PM limitations, formerly listed in 326 IAC 6-1, have been moved to 326 IAC 6.5 and all Lake County PM limitations, formerly listed in 326 IAC 6-1, have been moved to 326 IAC 6.8. The new articles were published in September 1, 2005 Indiana Register and 326 IAC 6-1 has been repealed. Therefore, original Condition C.6 – Fugitive Dust Emissions and the Section D conditions which referenced 326 IAC 6-1 have been have modified to reflect these changes.
- (m) The last sentence of original Condition C.4 - Incineration was deleted because the provisions of 326 IAC 9-1-2 are federally enforceable and are included in Indiana's State Implementation Plan.
- (n) Original Condition B.9 - Certification has been clarified to include a statement noting that a single certification form can be used for multiple forms in a single submittal.
- (o) IDEM realizes that the specifications of original Condition C.15 – Pressure Gauge and Other Instrument Specifications, can only be practically applied to analog units, and has therefore clarified the condition to state that the condition only applies to analog units. Upon further review, IDEM has also determined that the accuracy of the instruments is not nearly as important as whether the instrument has a range that is appropriate for the normal expected reading of the parameter. Therefore, the language in original Condition C.15 has been revised.
- (p) The Permittee submitted an Emergency Reduction Plan on December 16, 1996. Therefore, the submittal date has been added to original condition C.16 - Emergency Reduction Plans and non-applicable portions have been removed.
- (q) IDEM has reconsidered the requirement to develop and follow a Compliance Response Plan (original Condition C.18). The Permittee will still be required to take reasonable response steps when a compliance monitoring parameter is determined to be out of range or abnormal. Replacing the requirement to develop and follow a Compliance Response Plan with a requirement to take reasonable response steps will ensure that the control equipment is returned to proper operation as soon as practicable, while still allowing the Permittee the flexibility to respond to situations that were not anticipated. Therefore, original Condition C.18 for the “Compliance Response Plan” has been replaced by Condition C.15 for the “Response to Excursions or Exceedances”. The Section D conditions that refer to this condition have been revised to reflect the new condition title.
- (r) Revisions were made to the Emission Statement condition (original Condition C.20) to incorporate the revisions to 326 IAC 2-6 that became effective March 27, 2004. The revised rule was published in the April 1, 2004 Indiana Register.
- (s) The clean unit and pollution control project provisions of the U.S. EPA's New Source Review Reform Rules were vacated on June 24, 2005 by a United States Court of Appeals for the District of Columbia Circuit decision. The OAQ plans to remove the vacated provisions from 326 IAC 2 at the next state rulemaking opportunity. Paragraphs (c) of original Condition C.21, General Record Keeping Requirements and original Condition C.22, General Reporting

Requirements have been revised to remove references to the clean unit and pollution control project provisions.

- (t) Emission Offset limit
 - (1) The emission offset limit, Condition D.1.2(a), pursuant to construction permit No. 089-7082-00332, issued on October 24, 1997, and incorporated into the Part 70 Operating Permit T089-7732-00332, has been modified to better explain the requirements of the VOC limit. The VOC usage by the entire source is limited to 125.4 tons of VOC per twelve (12) consecutive month period.
 - (2) The emission offset limit, Condition D.1.2(b), pursuant to construction permit No. 089-2369-00332, issued on March 29, 1995 and incorporated into the Part 70 Operating Permit T089-7732-00332, has been modified to include the latest requirements for taking VOC emission credits for off-site recycling of surface coatings and clean-up solvents.
- (u) Condition D.1.6 - Volatile Organic Compounds and Condition D.1.10 - Record Keeping Requirements have been revised to clarify the requirements for taking VOC emission credits for offsite disposal of surface coating and clean-up solvents.
- (v) Parametric monitoring of the pressure drop across the baghouses has been revised to require a pressure drop reading once per day. Also, the normal range for the pressure drop reading has been expanded to reflect the results of the latest stack test. The new range is 2.0 inches of water to 8.0 inches of water.
- (w) 326 IAC 2-2 has been approved into the State Implementation Plan. Therefore, references to 40 CFR 52.21, in Conditions D.4.1 and D.5.1 have been removed.
- (x) The grit blast unit (P-PB-01) and the rotoblast unit (P-PB-02) have been separated in Condition D.2.1 - Particulate Matter Limitations for Lake County because the original SIP requirements (as recorded in 326 IAC 6-1-10.1 and recodified as 326 IAC 6.8-2-36) reference the grit blast unit only. Therefore, 326 IAC 6.8-1-2 (a) applies to the rotoblast unit (P-PB-02) and the particulate matter emissions from this operation shall not exceed 0.03 grains per dry standard cubic foot. Also, 326 IAC 6.8-2-36 applies to the grit blast unit and the particulate matter emissions from this operation shall not exceed 0.01 grains per dry standard cubic foot and 9.9 pounds per hour.
- (y) The particulate matter limitations for the grit blast unit (P-PB-01) and the PM/PM10 limitations for the rotoblast unit (P-PB-02) have been modified by the addition of Condition D.2.3 - Particulate Matter Limitations [326 IAC 2-3]. Condition D.4.1 has been revised to clarify the particulate matter limitations for P-PB-03 and P-PB-04. The following is a summary by unit:
 - (1) One (1) grit blast, constructed in 1969, identified as P-PB-01, located in building #7, with a maximum design flow rate of 14.4 tons per hour, using two dust collectors as control, exhausting to stacks 2A and 2B. The particulate matter emissions (PM10) from this unit are limited, in accordance with 326 IAC 6.8-2-36. The particulate matter emissions (PM) from this unit are limited by 326 IAC 6-3-2.
 - (2) One (1) rotoblast, constructed in 1968 and modified in 1994, identified as P-PB-02, located in building #7, with a maximum design flow rate of 16.3 tons per hour, using two (2) dust collectors rated at 45,000 ACFM each as control, each exhausting to stacks 6A and 6B. This unit was originally constructed in 1968 and replaced in 1994 under construction permit number 089-3759-00332. In 1997, the exhaust of the dust collectors was modified to exhaust to stack 6A and 6B under construction permit number 089-6189-00332. Since the SIP limit on the rotoblast does not prevent this major emission offset source from emitting greater than the emission offset threshold level for PM/PM10, a synthetic minor limit of less than 5.70 pound per hour PM and

3.42 pound per hour PM10 have been added to Condition D.2.3 of the permit. Subsequent D.2 Conditions have been renumbered and the Table of Contents has also been updated to reflect this change. Compliance with these emission limits will render the requirements of 326 IAC 2-3 Emission Offset not applicable.

- (3) One (1) grit blast operation (Exterior Blast), constructed in 1989, identified as P-PB-03, with a measured maximum design flow rate of 3.72 tons per hour, using a baghouse rated at 30,000 ACFM for control, exhausting to stack S-PB-03. One (1) grit blast operation (Interior Blast), constructed in 1989, identified as P-PB-04, with a measured maximum design flow rate of 1.86 tons per hour, using a baghouse rated at 20,000 ACFM for control, exhausting to stack S-PB-04. To prevent these units from emitting greater than the emission offset threshold level for PM/PM10, a synthetic minor limit has been added to Condition D.4.1 - PM and PM10 Emission Limitations [326 IAC 2-3]. The combined PM emissions from both P-PB-03 and P-PB-04 shall not exceed 5.70 pounds per hour. The combined PM10 emissions from P-PB-03 and P-PB-04 shall not exceed 3.42 pound per hour. Compliance with these emission limits will render the requirements of 326 IAC 2-3 Emission Offset not applicable.
- (z) Union Tank Car Company's Fugitive Dust Plan has been attached to the permit.
- (aa) The descriptive language used in the Quarterly Report for VOC usage in paint booths 3a, 3b and 3c has been updated to accurately reflect the parameter measured.
- (bb) The descriptive language use in the Quarterly Report for HAP emissions from paint booths 3a, 3b and 3c has been updated to accurately reflect the limit as less than 10 tons per year of an individual HAP and less than 25 tons per year of a combination of HAPs.

The following terms and conditions from previous approvals have been determined to be no longer applicable; therefore, they were not incorporated into this Part 70 Operating Permit Renewal:

- (a) The requirements of original Condition D.1.7 - VOC Emissions have been incorporated in Condition D.1.6(d). Former Condition D.1.7 has been removed from the permit.
- (b) In order to avoid duplication of requirements which may be included in D sections, original Condition C.7 – Operation of Equipment has been removed from the permit.
- (c) The requirements of former Condition B.8 - Compliance with Permit Conditions have been moved to the permit cover page.
- (d) Former Condition C.13 - Maintenance of Emission Monitoring Equipment has been removed from the permit. Condition C.13 related to continuous emission monitoring equipment and is not required for this source.
- (e) Former Condition D.3.2 - Compliance Monitoring requirements has been removed. This Condition simply stated no compliance monitoring requirements were applicable. Since no compliance monitoring requirements apply, the condition has been deleted in its entirety.
- (f) Former Condition D.4.8 - Baghouse Inspections has been deleted. Inspection frequencies and details of the inspection are included in the source's Preventive Maintenance Plan.

Enforcement Issue

There are no enforcement actions pending.

Emission Calculations

See Appendix A of this document for detailed emission calculations.

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	Nonattainment Subpart 2 Moderate effective June 15, 2004, for the 8-hour ozone standard. ¹
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.

¹Nonattainment Severe 17 effective November 15, 1990, for the Chicago-Gary-Lake County area for the 1-hour ozone standard which was revoked effective June 15, 2005.
 Basic nonattainment designation effective federally April 5, 2005, for PM2.5.

(a) Ozone Standards

- (1) On October 25, 2006, the Indiana Air Pollution Control Board finalized a rule revision to 326 IAC 1-4-1 revoking the one-hour ozone standard in Indiana.
- (2) On September 6, 2007, the Indiana Air Pollution Control Board finalized a temporary emergency rule to re-designate Allen, Clark, Elkhart, Floyd, LaPorte and St. Joseph Counties as attainment for the 8-hour ozone standard.
- (3) On November 9, 2007, the Indiana Air Pollution Control Board finalized a temporary emergency rule to re-designate Boone, Clark, Elkhart, Floyd, LaPorte, Hamilton, Hancock, Hendricks, Johnson, Madison, Marion, Morgan, Shelby, and St. Joseph Counties as attainment for the 8-hour ozone standard.
- (4) Volatile organic compounds (VOC) and Nitrogen Oxides (NOx) are regulated under the Clean Air Act (CAA) for the purposes of attaining and maintaining the National Ambient Air Quality Standards (NAAQS) for ozone.
 - (i) 1-hour ozone standard
 On December 22, 2006, the United States Court of Appeals, District of Columbia issued a decision which served to partially vacate and remand the U.S. EPA's final rule for implementation of the eight-hour National Ambient Air quality Standard for ozone. *South Coast Air Quality Mgmt. Dist. v. EPA*, 472 F.3d 882 (D.C. Cir., December 22, 2006), rehearing denied 2007 U.S. App. LEXIS 13748 (D.C. Cir., June 8, 2007). The U.S. EPA has instructed IDEM to issue permits in accordance with its interpretation of the South Coast decision as follows: Gary-Lake-Porter Counties were previously designated as severe

non-attainment areas prior to revocation of the one-hour ozone standard; therefore, pursuant to the anti-backsliding provisions of the Clean Air Act, any new or existing source must be subject to the major source applicability cut-offs and offset ratios under the area's previous one-hour standard designation. This means that a source must achieve the Lowest Achievable Emission Rate (LAER) if it exceeds 25 tons per year of VOC emissions and must offset any increase in VOC emissions by a decrease of 1.3 times that amount.

On January 26, 1996 in 40 CFR 52.777(i), the U.S. EPA granted a waiver of the requirements of Section 182(f) of the CAA for Lake and Porter Counties, including the lower NOx threshold for nonattainment new source review. Therefore, VOC emissions alone are considered when evaluating the rule applicability relating to the 1-hour ozone standards. Therefore, VOC emissions were reviewed pursuant to the requirements for Emission Offset, 326 IAC 2-3. See the State Rule Applicability for the source section.

- (ii) 8-hour ozone standard
VOC and NOx emissions are considered when evaluating the rule applicability relating to the 8-hour ozone standard. Lake County has been designated as nonattainment for the 8-hour ozone standard. Therefore, VOC and NOx emissions were reviewed pursuant to the requirements for Emission Offset, 326 IAC 2-3. See the State Rule Applicability – Entire Source section.

- (b) PM2.5
U.S. EPA, in the Federal Register Notice 70 FR 943 dated January 5, 2005, has designated Lake County as nonattainment for PM2.5. On March 7, 2005, the Indiana Attorney General's Office, on behalf of IDEM, filed a law suit with the Court of Appeals for the District of Columbia Circuit challenging U.S. EPA's designation of nonattainment areas without sufficient data. 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 guidance to regulate PM10 emissions as a surrogate for PM2.5 emissions pursuant to the requirements of Nonattainment New Source Review, 326 IAC 2-1.1-5.
- (c) Other Criteria Pollutants
Lake County has been classified as attainment or unclassifiable in Indiana for PM, PM10, SO2, NOx, CO and Lead. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.
- (d) Fugitive Emissions
Since this type of operation is not one of the twenty-eight (28) listed source categories under 326 IAC 2-2 or 326 IAC 2-3, fugitive emissions are not counted toward the determination of PSD and Emission Offset applicability.

Unrestricted Potential Emissions

This table reflects the unrestricted potential emissions of the source.

Pollutant	tons/year
PM	>250
PM ₁₀	>250
SO ₂	<100
VOC	>25
CO	<100
NO _x	<100

HAPs	tons/year
Single	>10
Total	>25

- (a) The potential to emit (as defined in 326 IAC 2-7-1(29)) of PM and PM10 are equal to or greater than 100 tons per year. Therefore, the source is subject to the provisions of 326 IAC 2-7.
- (b) The potential to emit (as defined in 326 IAC 2-7-1(29)) of any single HAP is equal to or greater than ten (10) tons per year and/or the potential to emit (as defined in 326 IAC 2-7-1(29)) of a combination of HAPs is equal to or greater than twenty-five (25) tons per year. Therefore, the source is subject to the provisions of 326 IAC 2-7.
- (c) Since this type of operation is not one of the twenty-eight (28) listed source categories under 326 IAC 2-7, fugitive emissions are not counted toward the determination of Part 70 applicability.

Part 70 Permit Conditions

This source is subject to the requirements of 326 IAC 2-7, pursuant to which the source has to meet the following:

- (a) Emission limitations and standards, including those operational requirements and limitations that assure compliance with all applicable requirements at the time of issuance of Part 70 permits.
- (b) Monitoring and related record keeping requirements which assume that all reasonable information is provided to evaluate continuous compliance with the applicable requirements.

Potential to Emit After Issuance

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

Potential to Emit After Controls (Tons per Year)							
Emission Unit	PM	PM ₁₀	SO ₂	VOC	CO	NO _x	HAPs
Surface Coating Booths (P-SC-01: 3a, 3b and 3c)	8.82	9.64	0.09	---	12.03	14.33	< 9.0 Single & < 24.0 Total
Grit Blast (P-PB-01)	61.94	43.36	0.00	---	0.00	0.00	---
Rotoblast (P-PB-02)	< 25	< 15	0.00	---	0.00	0.00	---
Normalizing Furnace (P-CB-01)	0.17	0.70	0.05	---	7.70	9.17	---
Stress Furnace (P-CB-02)	0.27	1.10	0.09	---	12.14	14.45	---
Stress Furnace (P-CB-03)	0.33	1.33	0.11	---	14.72	17.52	---

Potential to Emit After Controls (Tons per Year)

Grit Blast Units (P-PB-03 and P-PB-04)	< 25	< 15	0.00	---	0.00	0.00	---
Welding Operations (P-WD-01)	4.91	4.91	0.00	---	0.00	0.00	---
Paint Application Room (P-SC-02, P-SC-04 & P-SC-05)	1.90	1.90	0.00	< 24.5	0.00	0.00	---
Insignificant Activities	0.08	0.34	0.03	---	3.73	4.44	---
Total Potential to Emit	< 128.42	< 93.28	0.36	< 125.4	50.32	59.91	< 10 Single & < 25 Total

- (a) This existing stationary source is not major for PSD because the emissions of each criteria pollutant are less than two hundred fifty (<250) tons per year, and it is not one of the twenty-eight (28) listed source categories.
- (b) This existing stationary source is major for Emission Offset because the emissions of the nonattainment pollutant, VOC, is greater than twenty-five (>25) tons per year.
- (c) This existing stationary source is minor for Nonattainment NSR because the emissions of PM10, a surrogate for PM2.5, is less than one hundred (<100) tons per year.
- (d) 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 2-1.1-5, fugitive emissions are not counted toward the determination of PSD, Emission Offset and Nonattainment NSR.

Federal Rule Applicability

- (a) Pursuant to 40 CFR 64.2, Compliance Assurance Monitoring (CAM) is applicable to existing emission units that involve a pollutant-specific emission unit and meet the following criteria:
 - (1) has a potential to emit before controls equal to or greater than the major source threshold for the pollutant involved;
 - (2) is subject to an emission limitation or standard for that pollutant; and
 - (3) uses a control device, as defined in 40 CFR 64.1, to comply with that emission limitation or standard.

The following table is used to identify the applicability of each of the criteria, under 40 CFR 64.1, to each existing emission unit and specified pollutant subject to CAM:

Emission Unit / Pollutant	Control Device Used	Emission Limitation (Y/N)	Uncontrolled PTE (tons/year)	Controlled PTE (tons/year)	Major Source Threshold (tons/year)	CAM Applicable (Y/N)	Large Unit (Y/N)
Surface Coating Booths P-SC-01 / PM / PM10	Dry Filters	Y	57.03	2.85	100.0	N	N
Grit Blast	Dust	N	1261.0	63.1	100.0	N	N

Emission Unit / Pollutant	Control Device Used	Emission Limitation (Y/N)	Uncontrolled PTE (tons/year)	Controlled PTE (tons/year)	Major Source Threshold (tons/year)	CAM Applicable (Y/N)	Large Unit (Y/N)
P-PB-01 / PM	Collector						
Grit Blast P-PB-01 / PM10	Dust Collector	Y	883.0	43.4	100.0	Y	N
Rotoblast P-PB-02 / PM	Dust Collector	Y	571.0	5.5	100.0	Y	N
Rotoblast P-PB-02 / PM10	Dust Collector	Y	491.0	3.3	100.0	Y	N
Grit Blast P-PB-03 & -04 / PM	Dust Collector	Y	489.0	5.5	100.0	Y	N
Grit Blast P-PB-03 & -04 / PM10	Dust Collector	Y	342.0	3.3	100.0	Y	N
Paint Application Room / PM - PM10	Dry Filters	Y	37.9	1.9	100.00	N	N

Based on this evaluation, the requirements of 40 CFR Part 64, CAM are applicable to P-PB-01, P-PB-02, P-PB-03 and P-PB-04 for PM10 and P-PB-02, P-PB-03 and P-PB-04 for PM, upon issuance of the Title V Renewal. A CAM plan will be incorporated into this Part 70 Permit Renewal.

- (a) There are no New Source Performance Standards (NSPS) (326 IAC 12 and 40 CFR Part 60) included in the permit for this source.
- (b) There are no National Emission Standards for Hazardous Air Pollutants (NESHAP) (326 IAC 14, 326 IAC 20 and 40 CFR Part 63) included in the permit for this source.

State Rule Applicability - Entire Source

326 IAC 1-5-2 (Emergency Reduction Plans)

This rule applies to sources with a potential to emit one hundred (100) tons per year, or more, of any pollutant. Since this source can emit greater than 100 tons per year of PM, PM10 and VOC, 326 IAC 1-5-2 applies to this source. An Emergency Response Plan was submitted on December 16, 1996 to the Indiana Department of Environmental Management.

326 IAC 1-6-3 (Preventive Maintenance Plan)

This rule applies to sources required to have a permit under 326 IAC 2-5.1 or 326 IAC 2-6.1 or as deemed necessary by the commissioner. This source was required to prepare a Preventive Maintenance Plan to comply with 326 IAC 2-7-4(c)(9). The emission units subject to 326 IAC 1-6-3 are as follows:

- 1) Three (3) surface coating booths, identified as P-SC-01 (3a, 3b and 3c).
- 2) The paint application room, consisting of the following:
 - (i) Paint booth, identified as P-SC-02;
 - (ii) Stencil shop, identified as P-SC-04; and
 - (iii) Building #8 jacket prime shop, identified as P-SC-05.
- 3) One (1) grit blast unit, identified as P-PB-01.
- 4) One (1) rotoblast unit, P-PB-02.

- 5) One (1) grit blast unit, identified as P-PB-03.
- 6) One (1) grit blast unit, identified as P-PB-04.

326 IAC 1-7-1 (Stack Height Provisions)

This rule applies to sources having exhaust gas stacks through which a potential of twenty-five (25) tons per year or more of particulate matter are emitted. Since this source has exhaust stacks with a potential to emit particulate matter in excess of twenty-five (25) tons per year, this rule applies to this source.

326 IAC 2-2 (Prevention of Significant Deterioration (PSD))

This existing stationary source is not major for PSD because the emission of each criteria pollutant are less than two hundred and fifty (250) tons per year, and it is not one of the twenty-eight (28) listed source categories.

326 IAC 2-3 (Emission Offset)

This existing stationary source is major for Emission Offset because the emission of the nonattainment pollutant, VOC, is greater than twenty-five (25) tons per year.

The source has the following emission offset minor limits:

- (a) Pursuant to CP089-7082-00332, issued on October 24, 1997 and revised through this Part 70 Operating permit, the VOC usage by the entire source shall be less than 125.4 tons of VOC per 12 consecutive month period where compliance is determined at the end of each month.
- (b) Pursuant to CP089-2369-00332, issued on March 29, 1995 and revised through this Part 70 Operating Permit, the VOC usage from the paint application room, including clean-up solvents minus the amount of disposed of or recycled off-site, shall be limited to less than 24.5 tons per twelve (12) consecutive month period where compliance is determined at the end of each month. This usage limit is required to limit the potential to emit of VOC to less than 25 tons per 12 consecutive month period. Compliance with this limit ensures that 326 IAC 2-3 (Emission Offset) is not applicable.

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

This existing stationary source is minor for Nonattainment NSR because the emissions of PM₁₀, a surrogate for PM_{2.5}, is less than one hundred (<100) tons per year. The source does not have any Nonattainment NSR minor limits.

326 IAC 2-6 (Emission Reporting)

This source is subject to 326 IAC 2-6 (Emission Reporting) because it is required to have an operating permit under 326 IAC 2-7, Part 70 Operating Permit program. Pursuant to this rule, the Permittee shall submit an emission statement certified pursuant to the requirements of 326 IAC 2-6. In accordance with the compliance schedule specified in 326 IAC 2-6-3, an emission statement must be submitted triennially by July 1 beginning in 2004 and every 3 years after. Therefore, the next emission statement for this source must be submitted by July 1, 2010. The emission statement shall contain, at a minimum, the information specified in 326 IAC 2-6-4.

326 IAC 5-1 (Opacity Limitations)

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

State Rule Applicability – Individual Facilities

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

Pursuant to CP089-7082-00332, issued on October 24, 1997, the HAP usage in the three (3) surface coating booths (identified as P-SC-01, 3a, 3b and 3c) combined shall be less than 10 tons of a single HAP per twelve (12) consecutive month period where compliance is determined at the end of each month. These usage limits are required to limit the potential to emit of a single HAP to less than ten (10) tons per twelve (12) consecutive month period and a combination of HAPs to less than twenty-five (25) tons per twelve (12) consecutive month period. Compliance with this limit ensures that 326 IAC 2-3 (Emission Offset) is not applicable.

326 IAC 8-2-9 (Miscellaneous Metal Coating Operations)

Pursuant to 326 IAC 8-2-9:

- (a) The volatile organic compound (VOC) content of extreme performance coatings applied to steel tank cars shall be limited to 3.5 pounds of VOC per gallon less water delivered to the applicator.
- (b) Solvent sprayed from the application equipment during clean-up or color changes shall be directed into containers. Such containers shall be closed as soon as such solvent spraying is complete, and the waste solvent shall be disposed of in such a manner that evaporation is minimized.

326 IAC 6.8 (Particulate Matter Limitations for Lake County)

Union Tank Car Company - Plant #1 is specifically listed in 326 IAC 6.8-2-2 (Lake County: PM10 and total suspended particulates (TSP) emissions). The following emission limits apply to the facilities below:

- (a) Particulate emissions (PM10) from the grit blaster, identified as P-PB-01, shall not exceed 0.01 gr/dscf or 9.9 lb/hr.
- (b) Boilers No. 4, north stress furnace P-CB-02, south stress furnace P-CB-03, and the paint ovens listed in P-SC-01 shall burn natural gas only.
- (c) Natural gas-fired normalizing furnace, P-CB-01, boiler No. 8 and boiler P-CB-08 do not have applicable particulate matter limitations. In accordance with 326 IAC 6.8-2-1(d), particulate matter limitations shall not be established for combustion units that burn only natural gas at sources or facilities listed in 326 IAC 6.8-2.

326 IAC 6-2 (Particulate Rules)

326 IAC 6-2 does not apply to grit blaster P-PB-01, boiler No.4, stress furnace P-CB-02, stress furnace P-CB-03 and the paint ovens in P-SC-01 because, in accordance with 326-6-2-1(e), emission limitations in 326 IAC 6.8 prevail over 326 IAC 6-2.

326 IAC 6-3-2

Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the allowable particulate (PM) emission rate from the grit blast unit, identified as P-PB-01, shall not exceed 21.08 pounds per hour when operating at a process weight rate of 11.52 tons per hour.

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

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

$$E = 4.10 P^{0.67}$$

Where E = rate of emission in pounds per hour; and
P = process weight rate in tons per hour

The process weight rate was estimated by the source based on an average tank car weight of 75,800 pounds, 2,663 cars per year and 8,760 hours in a year.

326 IAC 8-2-9 (Miscellaneous Metal Coating)

Pursuant to 326 IAC 8-2-9 (Miscellaneous Metal Coating Operations), the volatile organic compound (VOC) content of the extreme performance coatings delivered to the applicator shall be limited to 3.5 pounds of VOCs per gallon of coating less water.

Solvent sprayed from application equipment during cleanup or color changes shall be directed into containers. Such containers shall be closed as soon as such solvent spraying is complete, and the waste solvent shall be disposed of in such a manner that evaporation is minimized.

Compliance Determination and Monitoring Requirements

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

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

The compliance determination requirements applicable to this source are as follows:

- (1) Surface coating operations P-SC-01 and the paint application room have applicable compliance determination conditions as specified below:

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

- (a) Compliance with the VOC content and usage limitations contained in Conditions D.1.1(a) 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 in 326 IAC 8-1-4.
- (b) If the amount of VOC in the waste shipped offsite for recycling or disposal is deducted from the monthly VOC usage reported, the Permittee shall determine the VOC content of the waste shipped offsite using one or a combination of the following methods:
 - (1) On-Site Sampling
 - (A) VOC content shall be determined pursuant to 326 IAC 8-1-4(a)(3) by EPA Reference Method 24 and the sampling procedures in 326 IAC 8-1-4 or other methods as approved by the Commissioner.
 - (B) A representative sample of the VOC containing waste to be shipped offsite shall be analyzed within 90 days of the issuance of this Part 70 Operating Permit Renewal T089-23442-00332.

- (C) If multiple cleanup solvent waste streams are collected and drummed separately, a sample shall be collected and analyzed from each solvent waste stream.
- (D) A new representative sample shall be collected and analyzed whenever a change or changes occur(s) that could result in a cumulative 10% or more increase in the VOC content of the VOC containing waste. Such change could include, but is not limited to, the following:
 - (i) A change in coating selection or formulation, "as supplied" or "as applied", or a change in solvent selection or formulation; or
 - (ii) An operational change in the coating application or cleanup operations.

The new VOC content shall be used in calculating the amount of VOC shipped offsite, starting with the date that the change occurred. The sample shall be collected and analyzed within 30 days of the change.

- (2) Certified Waste Report: The VOC reported by analysis of an off-site waste processor may be used, provided the report certifies the amount of VOC in the waste.
- (3) Minimum Assumed VOC Content: The VOC content of the waste shipped offsite may be assumed to be equal to the VOC content of the material with the lowest VOC content that could be present in the waste, as determined using the "as supplied" and "as applied" VOC data sheets, for each month.
- (c) IDEM reserves the right to request a representative sample of the VOC-containing waste stream and conduct an analysis for VOC content.
- (d) Compliance with the VOC usage limitations contained in Condition D.1.2 shall be demonstrated within 30 days of the end of each month. This shall be based on the total volatile organic compound usage for the previous month, minus the amount of VOC in the waste shipped out for recycling or disposal, and adding it to the previous eleven (11) months total VOC usage, minus the amount VOC in the waste shipped out for recycling or disposal, so as to arrive at the VOC usage for the most recent twelve (12) consecutive month period.
- (e) The VOC input for a month shall be calculated using the following equation:

$$\text{VOC input} = \text{SCL} - \text{SR}$$

Where:

- SCL = The total amount of VOC, in tons, delivered to the coating applicators, including coatings, dilution solvents, and cleaning solvents; and
- SR = The total amount of VOC, in tons, shipped out for either recycling or disposal, including coatings, dilution solvents, and cleaning solvents.

These compliance determination requirements are required to ensure the VOC usage to the entire source remains less than 125.4 tons per year and the VOC input to the paint application room remains less than 24.5 tons per year to make the requirements of 326 IAC 2-3 EO not applicable to the source.

- (2) Grit blast operation P-PB-01 and the rotoblast operation P-PB-02 have applicable compliance determination conditions as specified below:

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

No later than April 21, 2011, the Permittee shall perform PM and PM10 testing on the grit blast (P-PB-01) and rotoblast (P-PB-02) operations utilizing Methods 5 or 7 (40 CFR 60, Appendix A) for PM and Methods 201 or 201A and 202 (40 CFR 51, Appendix M) for PM10, or other methods as approved by the Commissioner. This test shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. PM10 includes filterable and condensable PM10.

Particulate Matter (PM) [326 IAC 6.8][326 IAC 2-3]

The dust collector for PM control shall be in operation at all times when grit blast P-PB-01 and rotoblast P-PB-02 are in operation.

- (3) Grit blast operation P-PB-03 and grit blast operation P-PB-04 have applicable compliance determination conditions as specified below:

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

No later than November 23, 2010, the Permittee shall perform PM and PM10 testing for the two (2) grit blast operations (P-PB-03 and P-PB-04) utilizing Methods 5 or 7 (40 CFR 60, Appendix A) for PM and Methods 201 or 201A and 202 (40 CFR 51, Appendix M) for PM10, or other methods as approved by the Commissioner. This test shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. PM10 includes filterable and condensable PM10.

Particulate Matter (PM) [326 IAC 2-3][326 IAC 6.8]

The baghouse for PM control shall be in operation at all times when grit blasters P-PB-03 and P-PB-04 are in operation.

These compliance determination conditions are required to ensure grit blast unit P-PB-01 complies with the PM10 emission limits of 326 IAC 6.8. In addition, the compliance determination conditions are required to ensure grit blast unit P-PB-02 complies with a PM emission limit of twenty-five (25) tons per year and fifteen (15) tons per year of PM10 rendering the requirements of 326 IAC 2-1.1-5 not applicable.

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

- (1) Surface coating operations P-SC-01 and the paint application room have applicable compliance monitoring conditions as specified below:

Particulate Matter (PM)

The dry filters for PM control shall be in place at all times when any one of the three (3) paint booths P-SC-01 (3a, 3b, and 3c), and the building # 8 paint application room are in operation.

Monitoring

- (a) Daily inspections shall be performed to verify the placement, integrity and particle loading of the filters. To monitor the performance of the dry filters, weekly observations shall be made of the overspray from the surface coating booth stacks, S-SC-01 and the paint application room stack(s), 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 in accordance with Section C - Response to Excursions or Exceedances. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances, shall be considered a deviation from this permit.

- (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. Where there is a noticeable change in overspray emissions, or when evidence of overspray emissions are observed, the Permittee shall take reasonable response steps in accordance with Section C - Response to Excursions or Exceedances. Failure to take response steps in accordance with Section - Response to Excursions or Exceedances, shall be considered a deviation from this permit.

These compliance monitoring conditions are required because the emission control equipment is required to be in place and to operate properly to ensure compliance with 326 IAC 6.8 and 326 IAC 2-3.

- (2) Grit blast operation P-PB-01 and the rotoblast operation P-PB-02 have applicable compliance monitoring conditions as specified below:

Parametric Monitoring [40 CFR 64]

- (a) The Permittee shall record the pressure drop across the dust collectors used in conjunction with the grit blast process P-PB-01, at least once per day when the grit blast process is in operation. When for any one reading, the pressure drop across the dust collectors is outside the normal range of 2.0 and 8.0 inches of water or a range established during the latest stack test, the Permittee shall take reasonable steps in accordance with Section C - Response to Excursions or Exceedances. A pressure reading outside this range is not a deviation from this permit. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances, shall be considered a deviation from this permit.
- (b) The Permittee shall record the pressure drop across the dust collectors used in conjunction with the rotoblast process P-PB-02, at least once per day when the rotoblast process is in operation. When for any one reading, the pressure drop across the dust collectors is outside the normal range of 2.0 and 8.0 inches of water or a range established during the latest stack test, the Permittee shall take reasonable steps in accordance with Section C - Response to Excursions or Exceedances. A pressure reading outside this range is not a deviation from this permit. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances, shall be considered a deviation from this permit.
- (c) 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.

Dust Collector Failure [40 CFR 64]

In the event that dust collector failure has been observed, the feed to the process shall be shut down immediately until the failed units have been repaired or replaced. The emission units shall be shut down no later than the completion of the processing of the material in the emissions unit. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions). Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances, shall be considered a deviation from this permit.

Visible Emissions Notations [40 CFR 64]

- (a) Visible emission notations of the grit blast P-PB-01 exhaust points shall be performed once per day during normal daylight operations. A trained employee shall record whether emissions are normal or abnormal.
- (b) Visible emission notations of the rotoblast P-PB-02 exhaust points shall be performed once per day during normal daylight operations. A trained employee shall record whether emissions are normal or abnormal.

- (c) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.
- (d) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.
- (e) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.
- (f) If abnormal emissions are observed, the Permittee shall take reasonable response steps in accordance with Section C - Response to Excursions or Exceedances. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances shall be considered a deviation from this permit. Observation of abnormal emissions that do not violate 326 IAC 6-4 (Fugitive Dust Emissions) or an applicable opacity limit is not a deviation from this permit.

These compliance monitoring conditions are required because the control equipment for grit blast unit P-PB-01 and rotoblast unit P-PB-02 must function properly to ensure compliance with 326 IAC 6.8 and to render the requirements of 326 IAC 2-3 not applicable.

- (3) Grit blast operation P-PB-03 and the grit blast operation P-PB-04 have applicable compliance monitoring conditions as specified below:

Visible Emissions Notations [40 CFR 64]

- (a) Visible emission notations of the two (2) grit blast operations (P-PB-03 and P-PB-04) stack exhausts 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 in accordance with Section C - Response to Excursions or Exceedances. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances shall be considered a deviation from this permit. Observation of abnormal emissions that do not violate 326 IAC 6-4 (Fugitive Dust Emissions) or an applicable opacity limit is not a violation from this permit.

Parametric Monitoring [40 CFR 64]

- (a) The Permittee shall record the pressure drop across the baghouses used in conjunction with the blasting processes P-PB-03 and P-PB-04, at least once per day when blasting processes are in operation. When for any one reading, the pressure drop across the baghouses is outside the normal range of 2.0 and 8.0 inches of water or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C - Response to Excursions or Exceedances. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances, shall be considered a deviation from this permit.

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

Baghouse Failure [40 CFR 64]

In the event that baghouse failure has been observed, the feed to the process shall be shut down immediately until the failed units have been repaired or replaced. The emission unit shall be shut down no later than the completion of the processing of the material in the emission unit. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions). Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances, shall be considered a deviation from this permit.

These compliance monitoring conditions are required because the control equipment for grit blast unit P-PB-03 and grit blast unit P-PB-04 must function properly to ensure compliance with 326 IAC 6.8 and to render the requirements of 326 IAC 2-3 not applicable.

Recommendation

The staff recommends to the Commissioner that the Part 70 Operating Permit Renewal be approved. This recommendation is based on the following facts and conditions:

Unless otherwise stated, information used in this review was derived from the application and additional information submitted by the applicant.

An application for the purposes of this review was received on July 31, 2006. Additional information was received on: November 1, 2006, April 3, 2006, April 4, 2006, April 23, 2006, July 27, 2007 and November 5, 2007.

Conclusion

The operation of this stationary steel railroad car manufacturing plant shall be subject to the conditions of the attached Part 70 Operating Permit Renewal No. T089-23442-00332.

Appendix A: Emission Calculations

Emission Summary Tables

Company Name: Union Tank Car Company - Plant 1
 Address City IN Zip: 151st Street and Railroad Avenue, East Chicago, Indiana 46312
 Permit Number: T089-23442-00332
 Pit ID: 089-00332
 Reviewer: David J. Matousek
 Date: January 18, 2008

Potential to Emit Before Controls (Tons per Year)							
Emission Unit	PM	PM ₁₀	SO ₂	VOC	CO	NO _x	HAPs
Surface Coating Booths (P-SC-01: 3a, 3b and 3c)	171.35	172.17	0.09	162.35	12.03	14.33	> 10 Single & > 25 Total
Grit Blast (P-PB-01)	1,261.00	883.00	0.00	0.00	0.00	0.00	0.00
Rotoblast (P-PB-02)	571.00	491.00	0.00	0.00	0.00	0.00	0.00
Normalizing Furnace (P-CB-01)	0.17	0.70	0.05	0.50	7.70	9.17	Hexane - 0.16 Total - 0.17
Stress Furnace (P-CB-02)	0.27	1.10	0.09	0.79	12.14	14.45	Hexane - 0.26 Total - 0.27
Stress Furnace (P-CB-03)	0.33	1.33	0.11	0.96	14.72	17.52	Hexane - 0.32 Total - 0.33
Grit Blast Units (P-PB-03 and P-PB-04)	489.00	342.00	0.00	0.00	0.00	0.00	0.00
Welding Operations (P-WD-01)	4.91	4.91	0.00	0.00	0.00	0.00	Mn - 0.23 Total - 0.24
Paint Application Room (P-SC-02, P-SC-04 & P-SC-05)	37.91	37.91	0.00	7.75	0.00	0.00	0.00
Insignificant Activities	0.08	0.34	0.03	0.24	3.73	4.44	Hexane - 0.08 Total - 0.08
Total Potential to Emit	2,536.03	1,934.46	0.36	172.60	50.32	59.91	> 10 Single & > 25 Total

Potential to Emit After Controls (Tons per Year)							
Emission Unit	PM	PM ₁₀	SO ₂	VOC	CO	NO _x	HAPs
Surface Coating Booths (P-SC-01: 3a, 3b and 3c)	8.82	9.64	0.09	---	12.03	14.33	< 9.0 Single & < 24.0 Total ²
Grit Blast (P-PB-01)	61.94 ¹	43.36	0.00	---	0.00	0.00	---
Rotoblast (P-PB-02)	< 25	< 15	0.00	---	0.00	0.00	---
Normalizing Furnace (P-CB-01)	0.17	0.70	0.05	---	7.70	9.17	---
Stress Furnace (P-CB-02)	0.27	1.10	0.09	---	12.14	14.45	---
Stress Furnace (P-CB-03)	0.33	1.33	0.11	---	14.72	17.52	---
Grit Blast Units (P-PB-03 and P-PB-04)	< 25	< 15	0.00	---	0.00	0.00	---
Welding Operations (P-WD-01)	4.91	4.91	0.00	---	0.00	0.00	---
Paint Application Room (P-SC-02, P-SC-04 & P-SC-05)	1.90	1.90	0.00	< 24.5 ³	0.00	0.00	---
Insignificant Activities	0.08	0.34	0.03	---	3.73	4.44	---
Total Potential to Emit	< 128.42	< 93.28	0.36	< 125.4²	50.32	59.91	< 10 Single & < 25 Total²

Notes

- 326 IAC 6.8-2-36 sets a limit for PM₁₀ emissions from Grit Blast Unit P-PB-01. The PM emissions were estimated using a PM/PM₁₀ ratio of 0.70 from STAPPA/ALAPCO, "Air Quality Permits," Vol. I, Section 3, "Abrasive Blasting" (1991 Edition). PM = PM₁₀ / 0.70.
- The source accepted a source wide limit for VOC and a HAP limit for P-SC-01 (surface coating booths) in CP-089-7082-00332, issued on October 24, 1997. The HAP limit is intended to keep the source wide emissions under 10 tons per year for a single HAP and 25 tons per year for combined HAPs.
- The source accepted a limit of less than 24.5 tons per year of VOC from the paint application room in CP-089-7082-00332, issued on March 29, 1995.

Appendix A: Emission Calculations

Welding Operations - HAP Emissions

Company Name: Union Tank Car Company - Plant 1
 Address City IN Zip: 151st Street and Railroad Avenue, East Chicago, Indiana 46312
 Permit Number: T089-23442-00332
 Plt ID: 089-00332
 Reviewer: David J. Matousek
 Date: January 18, 2008

Welding Type	Union Tank Car Part Number	Union Tank Car Electrode Description	AP-42 Electrode Used in Analysis	Maximum Annual Usage (lb/yr)	Cr Emission Factor (10 ⁻¹ lb / 1000 lb electrode)	Mn Emission Factor (10 ⁻¹ lb / 1000 lb electrode)	Ni Emission Factor (10 ⁻¹ lb / 1000 lb electrode)	Cr Emissions (ton/yr)	Mn Emissions (ton/yr)	Ni Emissions (ton/yr)	Total HAPs (ton/yr)
SMAW	315-0429	E309L ^a	E308	630	3.93	2.52	0.43	1.24E-04	7.94E-05	1.35E-05	2.17E-04
	315-0507	No AP-42 Factor*	E308	21,000	3.93	2.52	0.43	4.13E-03	2.65E-03	4.52E-04	7.22E-03
	315-0555	E8018	E8018	18,000	0.17	0.30	0.51	1.53E-04	2.70E-04	4.59E-04	8.82E-04
	315-0677	E308L	E308	60	3.93	2.52	0.43	1.18E-05	7.56E-06	1.29E-06	2.06E-05
	315-1033	E8018	E8018	9,000	0.17	0.30	0.51	7.65E-05	1.35E-04	2.30E-04	4.41E-04
	315-1207	E308L	E308	120	3.93	2.52	0.43	2.36E-05	1.51E-05	2.58E-06	4.13E-05
	315-1214	E309L	E308	600	3.93	2.52	0.43	1.18E-04	7.56E-05	1.29E-05	2.06E-04
315-1438	E8018	E8018	38,700	0.17	0.30	0.51	3.29E-04	5.81E-04	9.87E-04	1.90E-03	
Subtotal - SMAW				88,110				4.96E-03	3.81E-03	2.16E-03	1.09E-02
Welding Type	Union Tank Car Part Number	Electrode Description	AP-42 Electrode Used in Analysis	Maximum Annual Usage (lb/yr)	Cr Emission Factor (10 ⁻¹ lb / 1000 lb electrode)	Mn Emission Factor (10 ⁻¹ lb / 1000 lb electrode)	Ni Emission Factor (10 ⁻¹ lb / 1000 lb electrode)	Cr Emissions (ton/yr)	Mn Emissions (ton/yr)	Ni Emissions (ton/yr)	Total HAPs (ton/yr)
SAW	315-0513	E8018	EM12K	21,000	0.00	0.00	0.00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	315-4652	E70S-3	EM12K	18,240	0.00	0.00	0.00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	315-4872	EH12K	EM12K	67,200	0.00	0.00	0.00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	315-4873	EH12K	EM12K	439,200	0.00	0.00	0.00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Subtotal - SAW				545,640				0.00E+00	0.00E+00	0.00E+00	0.00E+00
Welding Type	Union Tank Car Part Number	Electrode Description	AP-42 Electrode Used in Analysis	Maximum Annual Usage (lb/yr)	Cr Emission Factor (10 ⁻¹ lb / 1000 lb electrode)	Mn Emission Factor (10 ⁻¹ lb / 1000 lb electrode)	Ni Emission Factor (10 ⁻¹ lb / 1000 lb electrode)	Cr Emissions (ton/yr)	Mn Emissions (ton/yr)	Ni Emissions (ton/yr)	Total HAPs (ton/yr)
GMAW	315-4485	E70C-6C/6M	E70S	81,600	0.01	3.18	0.01	4.08E-05	1.30E-02	4.08E-05	1.31E-02
	315-4490	E70C-6C/6M	E70S	111,672	0.01	3.18	0.01	5.58E-05	1.78E-02	5.58E-05	1.79E-02
	315-4494	Er-309Lsi	E70S	300	0.01	3.18	0.01	1.50E-07	4.77E-05	1.50E-07	4.80E-05
	315-4490	E70C-6C/6M	E70S	125	0.01	3.18	0.01	6.25E-08	1.99E-05	6.25E-08	2.00E-05
	315-4510	E70S-3	E70S	55,080	0.01	3.18	0.01	2.75E-05	8.76E-03	2.75E-05	8.81E-03
Subtotal - GMAW				248,777				1.24E-04	3.96E-02	1.24E-04	4.00E-02
Welding Type	Union Tank Car Part Number	Electrode Description	AP-42 Electrode Used in Analysis	Maximum Annual Usage (lb/yr)	Cr Emission Factor (10 ⁻¹ lb / 1000 lb electrode)	Mn Emission Factor (10 ⁻¹ lb / 1000 lb electrode)	Ni Emission Factor (10 ⁻¹ lb / 1000 lb electrode)	Cr Emissions (ton/yr)	Mn Emissions (ton/yr)	Ni Emissions (ton/yr)	Total HAPs (ton/yr)
FCAW	315-4590	E70S-3	E71T	25,920	0.02	6.62	0.04	2.59E-05	8.58E-03	5.18E-05	8.66E-03
	315-4603	S71T-1	E71T	547,200	0.02	6.62	0.04	5.47E-04	1.81E-01	1.09E-03	1.83E-01
Subtotal - FCAW				573,120				5.73E-04	1.90E-01	1.15E-03	1.91E-01
								Cr Total	Mn Total	Ni Total	Total HAPs
								0.0057	0.2331	0.0034	0.2419
								Welding HAPs (ton/yr)			

(See the emission calculations for welding operations - PM10 emissions for methodology used.)

Appendix A: Emission Calculations

Welding Operations - PM/PM10 Emissions

Company Name: Union Tank Car Company - Plant 1
 Address City IN Zip: 151st Street and Railroad Avenue, East Chicago, Indiana 46312
 Permit Number: T089-23442-00332
 Pit ID: 089-00332
 Reviewer: David J. Matousek
 Date: January 18, 2008

Welding Type	Union Tank Car Part Number	Union Tank Car Electrode Description	AP-42 Electrode Used in Analysis	Maximum Annual Usage (lb/yr)	Emission Factor (lb PM10 / 1000 lb electrode)	PM10 Emissions (lb/yr)	PM10 Emissions (ton/yr)
SMAW	315-0429	E309L	E308	630	10.8	6.80	0.00
	315-0507	No AP-42 Factor	E8018	21,000	17.1	359.10	0.18
	315-0555	E8018	E8018	18,000	17.1	307.80	0.15
	315-0677	E308L	E308	60	10.8	0.65	0.00
	315-1033	E8018	E8018	9,000	17.1	153.90	0.08
	315-1207	E308L	E308	120	10.8	1.30	0.00
	315-1214	E309L	E308	600	10.8	6.48	0.00
315-1438	E8018	E8018	38,700	17.1	661.77	0.33	
Subtotal - SMAW				88,110		1,497.80	0.75
Welding Type	Union Tank Car Part Number	Electrode Description	AP-42 Electrode Used in Analysis	Maximum Annual Usage (lb/yr)	Emission Factor (lb PM10 / 1000 lb electrode)	PM10 Emissions (lb/yr)	PM10 Emissions (ton/yr)
SAW	315-0513	E8018	EM12K	21,000	0.05	1.05	0.00
	315-4652	E70S-3	EM12K	18,240	0.05	0.91	0.00
	315-4872	EH12K	EM12K	67,200	0.05	3.36	0.00
	315-4873	EH12K	EM12K	439,200	0.05	21.96	0.01
Subtotal - SAW				545,640		27.28	0.01
Welding Type	Union Tank Car Part Number	Electrode Description	AP-42 Electrode Used in Analysis	Maximum Annual Usage (lb/yr)	Emission Factor (lb PM10 / 1000 lb electrode)	PM10 Emissions (lb/yr)	PM10 Emissions (ton/yr)
GMAW	315-4485	E70C-6C/6M	E70S	81,600	5.2	424.32	0.21
	315-4490	E70C-6C/6M	E70S	111,672	5.2	580.69	0.29
	315-4494	Er-309Lsi	E70S	300	5.2	1.56	0.00
	315-4490	E70C-6C/6M	E70S	125	5.2	0.65	0.00
	315-4510	E70S-3	E70S	55,080	5.2	286.42	0.14
Subtotal - GMAW				248,777		1,293.64	0.65
Welding Type	Union Tank Car Part Number	Electrode Description	AP-42 Electrode Used in Analysis	Maximum Annual Usage (lb/yr)	Emission Factor (lb PM10 / 1000 lb electrode)	PM10 Emissions (lb/yr)	PM10 Emissions (ton/yr)
FCAW	315-4590	E70S-3	E71T	25,920	12.2	316.22	0.16
	315-4603	S71T-1	E71T	547,200	12.2	6,675.84	3.34
Subtotal - FCAW				573,120		6,992.06	3.50
Welding Type - Emission Summary					Maximum Annual Usage (lb/yr)	PM10 Emissions (lb/yr)	PM10 Emission (ton/yr)
SMAW					88,110	1,497.80	0.75
SAW					545,640	27.28	0.01
GMAW					248,777	1,293.64	0.65
FCAW					573,120	6,992.06	3.50
Welding Total					1,455,647	9,810.78	4.91

Methodology

- 1) All particulate emissions from welding operations are assumed to be PM10 in accordance with AP-42, Table 12.19-1.
- 2) HAP emissions (ton/yr) = (lb electrode / yr) * ((emission factor) * 0.1 lb HAP / 1,000 lb electrode) ÷ (2,000 lb / ton)
- 3) PM10 emissions (ton/yr) = (lb electrode / yr) * (emission factor) ÷ (2,000 lb / ton)
- 4) Not all electrodes used at this source are listed in AP-42, Table 12.19-1 and 12.19-2. The source submitted welding calculations based on the AP-42 electrode most similar to the electrode in use at the source.
- 5) The source estimated the annual usage of the electrode listed in the table above. The actual amount of electrode used should never exceed the amounts listed in these tables. Condition D.5.4 requires the source to keep records of the type and amount of electrode used in the welding operation. The welding operations are limited to less than fifteen (15) tons of PM10 per year by Condition D.5.1.

Appendix A: Emissions Calculations

VOC and Particulate - P-SC-01

Company Name: Union Tank Car Company - Plant #1
 Address City IN Zip: 151st Street and Railroad Avenue, East Chicago, Indiana 46312
 Permit Number: T089-23442-00332
 Pit ID: 089-00332
 Reviewer: David J. Matousek
 Date: January 18, 2008

Potential to Emit (8,760 Hours of Operation)

Material	Density (Lb/Gal)	Weight % Volatile (H2O & Organics)	Weight % Water	Weight % Organics	Volume % Water	Volume % Non-Volatiles (solids)	Gal of Mat. (gal/unit)	Maximum (unit/hour)
LC-TB958HF	10.3	19.10%	0.0%	19.1%	0.0%	70.72%	25.00000	0.250

Pounds VOC per gallon of coating less water	Pounds VOC per gallon of coating	Potential VOC pounds per hour	Potential VOC pounds per day	Potential VOC tons per year	Particulate Potential (ton/yr)	lb VOC/gal solids	Transfer Efficiency
1.97	1.97	12.30	295.10	53.85	57.03	2.78	75%

State Potential Emissions

Add worst case coating to all solvents

	VOC (lb/hr)	VOC (lb/day)	VOC (ton/yr)	Particulate (ton/yr)
Worst Case Single Booth	12.30	295.10	53.85	57.03
Three Booths	36.89	885.29	161.56	171.08

PM Control Efficiency 95.00%
 Controlled PM Emissions 8.55

Anticipated Emissions - 4,608 Hours of Operation - (Process Limited by Maintenance / Cleaning)

Material	Density (Lb/Gal)	Weight % Volatile (H2O & Organics)	Weight % Water	Weight % Organics	Volume % Water	Volume % Non-Volatiles (solids)	Gal of Mat. (gal/unit)	Maximum (unit/hour)
LC-TB958HF	10.3	19.10%	0.0%	19.1%	0.0%	70.72%	25.00000	0.250

Pounds VOC per gallon of coating less water	Pounds VOC per gallon of coating	Potential VOC pounds per hour	Potential VOC pounds per day	Potential VOC tons per year	Particulate Potential (ton/yr)	lb VOC/gal solids	Transfer Efficiency
1.97	1.97	12.30	196.73	28.33	30.00	2.78	75%

State Potential Emissions

Add worst case coating to all solvents

	VOC (lb/hr)	VOC (lb/day)	VOC (ton/yr)	Particulate (ton/yr)
Worst Case Single Booth	12.30	196.73	28.33	30.00
Three Booths	36.89	590.19	84.99	89.99

PM Control Efficiency 95.00%
 Controlled PM Emissions 4.50

METHODOLOGY

Pounds of VOC per Gallon Coating less Water = (Density (lb/gal) * Weight % Organics) / (1-Volume % water)

Pounds of VOC per Gallon Coating = (Density (lb/gal) * Weight % Organics)

Potential VOC Pounds per Hour = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr)

Potential VOC Pounds per Day = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr) * (24 hr/day)

Potential VOC Tons per Year = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr) * (8760 hr/yr) * (1 ton/2000 lbs)

Particulate Potential Tons per Year = (units/hour) * (gal/unit) * (lbs/gal) * (1- Weight % Volatiles) * (1-Transfer efficiency) * (8760 hrs/yr) * (1 ton/2000 lbs)

Pounds VOC per Gallon of Solids = (Density (lbs/gal) * Weight % organics) / (Volume % solids)

Total = Worst Coating + Sum of all solvents used

Appendix A: Emissions Calculations

VOC and Particulate - Paint Application Area / Building 8

Company Name: Union Tank Car Company - Plant #1
 Address City IN Zip: 151st Street and Railroad Avenue, East Chicago, Indiana 46312
 Permit Number: T089-23442-00332
 Plt ID: 089-00332
 Reviewer: David J. Matousek
 Date: January 18, 2008

Potential to Emit (8,760 Hours of Operation)

Material	Density (Lb/Gal)	Weight % Volatile (H2O & Organics)	Weight % Water	Weight % Organics	Volume % Water	Volume % Non-Volatiles (solids)	Gal of Mat. (gal/unit)	Maximum (unit/hour)
QCLC-27-655-B	8.0	4.84%	0.00%	4.84%	0.00%	95.16%	10.80	0.42
212-6902	11.0	57.95%	57.50%	0.45%	75.90%	23.15%	10.80	0.42

Pounds VOC per gallon of coating less water	Pounds VOC per gallon of coating	Potential VOC pounds per hour	Potential VOC pounds per day	Potential VOC tons per year	Particulate Potential (ton/yr)	lb VOC/gal solids	Transfer Efficiency
0.39	0.39	1.77	42.46	7.75	37.91	0.41	75%
0.21	0.05	0.23	5.44	0.99	23.00	0.21	75%

State Potential Emissions

Add worst case coating to all solvents

	VOC (lb/hr)	VOC (lb/day)	VOC (ton/yr)	Particulate (ton/yr)
Worst Case Coating	1.77	42.46	7.75	37.91

PM Control Efficiency 95.00%
Controlled PM Emissions 1.90

METHODOLOGY

Pounds of VOC per Gallon Coating less Water = (Density (lb/gal) * Weight % Organics) / (1-Volume % water)

Pounds of VOC per Gallon Coating = (Density (lb/gal) * Weight % Organics)

Potential VOC Pounds per Hour = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr)

Potential VOC Pounds per Day = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr) * (24 hr/day)

Potential VOC Tons per Year = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr) * (8760 hr/yr) * (1 ton/2000 lbs)

Particulate Potential Tons per Year = (units/hour) * (gal/unit) * (lbs/gal) * (1- Weight % Volatiles) * (1-Transfer efficiency) *(8760 hrs/yr) *(1 ton/2000 lbs)

Pounds VOC per Gallon of Solids = (Density (lbs/gal) * Weight % organics) / (Volume % solids)

Total = Worst Coating + Sum of all solvents used

Paints used in the paint application room do not contain HAPs. All coatings containing HAPs are applied in the surface coating booths.

Appendix A: Emission Calculations**Abrasive Blasting Operations - Uncontrolled PM/PM10 Emissions - CAM Applicability**

Company Name: Union Tank Car Company - Plant 1
Address City IN Zip: 151st Street and Railroad Avenue, East Chicago, Indiana 46312
Permit Number: T089-23442-00332
Pit ID: 089-00332
Reviewer: David J. Matousek
Date: January 18, 2008

Blast Unit	Abrasive	Abrasive Flow Rate (ton/hr)	PM Emission Factor (lb PM /lb abrasive)	Uncontrolled PM Emissions (ton/yr)	PM10 Ratio (PM10 / PM)	Uncontrolled PM10 Emissions (ton/yr)
P-PB-01 (Grit Blast)	Grit	14.4	0.01	1,261	0.70	883
P-PB-02 (Rotoblast)	Steel Shot	16.3	0.004	571	0.86	491
P-PB-03 (Exterior Grit Blast)	Grit	3.72	0.01	326	0.70	228
P-PB-04 (Interior Grit Blast)	Grit	1.86	0.01	163	0.70	114
Total				2,321		1,716

- 1) The PM/PM10 emission factors are from STAPPA/ALAPCO, "Air Quality Permits," Vol. I, Section 3, "Abrasive Blasting" (1991 Edition)
- 2) Uncontrolled PM Emissions (ton/yr) = (ton abrasive/hr) * (2,000 lb grit / ton grit) * (emission factor lb/lb) * 8,760 hr/yr * 1 ton/2,000 lb
- 3) Uncontrolled PM10 Emissions (ton/yr) = (Uncontrolled PM Emissions (ton/yr)) * (PM10 Ratio)
- 4) Each of the grit blast units are provided with a grit recycle system and baghouses for emission control.

Appendix A: Emissions Calculations

Natural Gas Combustion - P-SC-01

Company Name: Union Tank Car Company - Plant 1
Address City IN Zip: 151st Street and Railroad Avenue, East Chicago, Indiana 46312
Permit Number: T089-23442-00332
Plt ID: 089-00332
Reviewer: David J. Matousek
Date: January 18, 2008

Heat Input Capacity (MMBtu/hr)

22.160
 0.825
 9.720
 32.705

Potential Throughput (MMCF/yr)

194.12
 7.23
 85.15
 286.50

Unit Descriptions

P-SC-01 - Three natural gas makeup heaters at 7.387 MMBtu/hr each.
 P-SC-01 - Three natural gas drying room heaters at 0.825 MMBtu/hr total.
 P-SC-01 - Three groups of Infra-red heaters at 3.240 MMBtu/hr each group.

Emission Factor in lb/MMCF	Pollutant					
	PM*	PM10*	SO2	NOx	VOC	CO
	1.9	7.6	0.6	100.0 **see below	5.5	84.0
Potential Emission in tons/yr	0.27	1.09	0.09	14.33	0.79	12.03

*PM emission factor is filterable PM only. PM10 emission factor is filterable and condensable PM10 combined.

**Emission Factors for NOx: Uncontrolled = 100, Low NOx Burner = 50, Low NOx Burners/Flue gas recirculation = 32

Methodology

All emission factors are based on normal firing.

MMBtu = 1,000,000 Btu

MMCF = 1,000,000 Cubic Feet of Gas

Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,000 MMBtu

Emission Factors are from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03 (SUPPLEMENT D 3/98)

Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton

See page 2 for HAPs emissions calculations.

**Appendix A: Emissions Calculations
Natural Gas Combustion - P-SC-01
HAP Emissions**

Company Name: Union Tank Car Company - Plant 1
Address City IN Zip: 151st Street and Railroad Avenue, East Chicago, Indiana 46312
Permit Number: T089-23442-00332
Plt ID: 089-00332
Reviewer: David J. Matousek
Date: January 18, 2007

HAPs - Organics					
Emission Factor in lb/MMcf	Benzene 2.1E-03	Dichlorobenzene 1.2E-03	Formaldehyde 7.5E-02	Hexane 1.8E+00	Toluene 3.4E-03
Potential Emission in tons/yr	3.008E-04	1.719E-04	1.074E-02	2.579E-01	4.871E-04

HAPs - Metals					
Emission Factor in lb/MMcf	Lead 5.0E-04	Cadmium 1.1E-03	Chromium 1.4E-03	Manganese 3.8E-04	Nickel 2.1E-03
Potential Emission in tons/yr	7.163E-05	1.576E-04	2.006E-04	5.444E-05	3.008E-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

2.703E-01

All emission factors are based on normal firing.
 MMBtu = 1,000,000 Btu
 MMCF = 1,000,000 Cubic Feet of Gas

Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,000 MMBtu
 Emission Factors are from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03
 (SUPPLEMENT D 3/98)
 Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton

Appendix A: Emissions Calculations

Natural Gas Combustion - P-CB-02

Company Name: Union Tank Car Company - Plant 1
Address City IN Zip: 151st Street and Railroad Avenue, East Chicago, Indiana 46312
Permit Number: T089-23442-00332
Plt ID: 089-00332
Reviewer: David J. Matousek
Date: January 18, 2008

**Heat Input
Capacity
(MMBtu/hr)**

20.93

20.93

**Potential
Throughput
(MMCF/yr)**

183.3

183.3

Unit Descriptions

P-CB-01 - Natural gas normalizing furnace.

	Pollutant					
	PM*	PM10*	SO2	NOx	VOC	CO
Emission Factor in lb/MMCF	1.9	7.6	0.6	100.0 **see below	5.5	84.0
Potential Emission in tons/yr	0.17	0.70	0.05	9.17	0.50	7.70

*PM emission factor is filterable PM only. PM10 emission factor is filterable and condensable PM10 combined.

**Emission Factors for NOx: Uncontrolled = 100, Low NOx Burner = 50, Low NOx Burners/Flue gas recirculation = 32

Methodology

All emission factors are based on normal firing.

MMBtu = 1,000,000 Btu

MMCF = 1,000,000 Cubic Feet of Gas

Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,000 MMBtu

Emission Factors are from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03 (SUPPLEMENT D 3/98)

Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton

See page 2 for HAPs emissions calculations.

Appendix A: Emissions Calculations
Natural Gas Combustion - P-CB-01 (Normalizing Furnace)
HAP Emissions

Company Name: Union Tank Car Company - Plant 1
Address City IN Zip: 151st Street and Railroad Avenue, East Chicago, Indiana 46312
Permit Number: T089-23442-00332
Plt ID: 089-00332
Reviewer: David J. Matousek
Date: January 18, 2008

HAPs - Organics					
Emission Factor in lb/MMcf	Benzene 2.1E-03	Dichlorobenzene 1.2E-03	Formaldehyde 7.5E-02	Hexane 1.8E+00	Toluene 3.4E-03
Potential Emission in tons/yr	1.925E-04	1.100E-04	6.874E-03	1.650E-01	3.116E-04

HAPs - Metals					
Emission Factor in lb/MMcf	Lead 5.0E-04	Cadmium 1.1E-03	Chromium 1.4E-03	Manganese 3.8E-04	Nickel 2.1E-03
Potential Emission in tons/yr	4.583E-05	1.008E-04	1.283E-04	3.483E-05	1.925E-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

Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,000 MMBtu
 Emission Factors are from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03
 (SUPPLEMENT D 3/98)
 Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton

Appendix A: Emissions Calculations

Natural Gas Combustion - P-CB-02

Company Name: Union Tank Car Company - Plant 1
Address City IN Zip: 151st Street and Railroad Avenue, East Chicago, Indiana 46312
Permit Number: T089-23442-00332
Plt ID: 089-00332
Reviewer: David J. Matousek
Date: January 18, 2008

**Heat Input
Capacity
(MMBtu/hr)**

33.00

33.00

**Potential
Throughput
(MMCF/yr)**

289.08

289.08

Unit Descriptions

P-CB-02 - North natural gas stress furnace.

	Pollutant					
	PM*	PM10*	SO2	NOx	VOC	CO
Emission Factor in lb/MMCF	1.9	7.6	0.6	100.0 **see below	5.5	84.0
Potential Emission in tons/yr	0.27	1.10	0.09	14.45	0.79	12.14

*PM emission factor is filterable PM only. PM10 emission factor is filterable and condensable PM10 combined.

**Emission Factors for NOx: Uncontrolled = 100, Low NOx Burner = 50, Low NOx Burners/Flue gas recirculation = 32

Methodology

All emission factors are based on normal firing.

MMBtu = 1,000,000 Btu

MMCF = 1,000,000 Cubic Feet of Gas

Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,000 MMBtu

Emission Factors are from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03 (SUPPLEMENT D 3/98)

Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton

See page 2 for HAPs emissions calculations.

**Appendix A: Emissions Calculations
Natural Gas Combustion - P-CB-02
HAP Emissions**

Company Name: Union Tank Car Company - Plant 1
Address City IN Zip: 151st Street and Railroad Avenue, East Chicago, Indiana 46312
Permit Number: T089-23442-00332
Plt ID: 089-00332
Reviewer: David J. Matousek
Date: January 18, 2008

HAPs - Organics					
Emission Factor in lb/MMcf	Benzene 2.1E-03	Dichlorobenzene 1.2E-03	Formaldehyde 7.5E-02	Hexane 1.8E+00	Toluene 3.4E-03
Potential Emission in tons/yr	3.035E-04	1.734E-04	1.084E-02	2.602E-01	4.914E-04

HAPs - Metals					
Emission Factor in lb/MMcf	Lead 5.0E-04	Cadmium 1.1E-03	Chromium 1.4E-03	Manganese 3.8E-04	Nickel 2.1E-03
Potential Emission in tons/yr	7.227E-05	1.590E-04	2.024E-04	5.493E-05	3.035E-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

Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,000 MMBtu
 Emission Factors are from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03
 (SUPPLEMENT D 3/98)
 Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton

Appendix A: Emissions Calculations

Natural Gas Combustion - P-CB-03

Company Name: Union Tank Car Company - Plant 1
Address City IN Zip: 151st Street and Railroad Avenue, East Chicago, Indiana 46312
Permit Number: T089-23442-00332
Plt ID: 089-00332
Reviewer: David J. Matousek
Date: January 18, 2008

Heat Input Capacity
(MMBtu/hr)

40.00
40.00

Potential Throughput
(MMCF/yr)

350.4
350.4

Unit Descriptions

P-CB-03 - South natural gas stress furnace.

	Pollutant					
	PM*	PM10*	SO2	NOx	VOC	CO
Emission Factor in lb/MMCF	1.9	7.6	0.6	100.0 **see below	5.5	84.0
Potential Emission in tons/yr	0.33	1.33	0.11	17.52	0.96	14.72

*PM emission factor is filterable PM only. PM10 emission factor is filterable and condensable PM10 combined.

**Emission Factors for NOx: Uncontrolled = 100, Low NOx Burner = 50, Low NOx Burners/Flue gas recirculation = 32

Methodology

All emission factors are based on normal firing.

MMBtu = 1,000,000 Btu

MMCF = 1,000,000 Cubic Feet of Gas

Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,000 MMBtu

Emission Factors are from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03 (SUPPLEMENT D 3/98)

Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton

See page 2 for HAPs emissions calculations.

**Appendix A: Emissions Calculations
Natural Gas Combustion - P-CB-03
HAP Emissions**

Company Name: Union Tank Car Company - Plant 1
Address City IN Zip: 151st Street and Railroad Avenue, East Chicago, Indiana 46312
Permit Number: T089-23442-00332
Plt ID: 089-00332
Reviewer: David J. Matousek
Date: January 18, 2008

HAPs - Organics					
Emission Factor in lb/MMcf	Benzene 2.1E-03	Dichlorobenzene 1.2E-03	Formaldehyde 7.5E-02	Hexane 1.8E+00	Toluene 3.4E-03
Potential Emission in tons/yr	3.679E-04	2.102E-04	1.314E-02	3.154E-01	5.957E-04

HAPs - Metals					
Emission Factor in lb/MMcf	Lead 5.0E-04	Cadmium 1.1E-03	Chromium 1.4E-03	Manganese 3.8E-04	Nickel 2.1E-03
Potential Emission in tons/yr	8.760E-05	1.927E-04	2.453E-04	6.658E-05	3.679E-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

Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,000 MMBtu
 Emission Factors are from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03
 (SUPPLEMENT D 3/98)
 Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton

Appendix A: Emissions Calculations

Insignificant Activities

Company Name: Union Tank Car Company - Plant 1
Address City IN Zip: 151st Street and Railroad Avenue, East Chicago, Indiana 46312
Permit Number: T089-23442-00332
Plt ID: 089-00332
Reviewer: David J. Matousek
Date: January 18, 2008

Heat Input Capacity (MMBtu/hr)	Potential Throughput (MMCF/yr)	Unit Descriptions
6.280	55.01	Boiler No. 4
3.000	26.28	Boiler No. 7
0.850	7.45	P-CB-08 - Preheater Boiler
10.130	88.74	

	Pollutant					
	PM*	PM10*	SO2	NOx	VOC	CO
Emission Factor in lb/MMCF	1.9	7.6	0.6	100.0 **see below	5.5	84.0
Potential Emission in tons/yr	0.08	0.34	0.03	4.44	0.24	3.73

*PM emission factor is filterable PM only. PM10 emission factor is filterable and condensable PM10 combined.

**Emission Factors for NOx: Uncontrolled = 100, Low NOx Burner = 50, Low NOx Burners/Flue gas recirculation = 32

Methodology

All emission factors are based on normal firing.

MMBtu = 1,000,000 Btu

MMCF = 1,000,000 Cubic Feet of Gas

Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,000 MMBtu

Emission Factors are from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03 (SUPPLEMENT D 3/98)

Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton

See page 2 for HAPs emissions calculations.

**Appendix A: Emissions Calculations
Insignificant Activities
HAP Emissions**

Company Name: Union Tank Car Company - Plant 1
Address City IN Zip: 151st Street and Railroad Avenue, East Chicago, Indiana 46312
Permit Number: T089-23442-00332
Plt ID: 089-00332
Reviewer: David J. Matousek
Date: January 18, 2007

HAPs - Organics					
Emission Factor in lb/MMcf	Benzene 2.1E-03	Dichlorobenzene 1.2E-03	Formaldehyde 7.5E-02	Hexane 1.8E+00	Toluene 3.4E-03
Potential Emission in tons/yr	9.318E-05	5.324E-05	3.328E-03	7.987E-02	1.509E-04

HAPs - Metals					
Emission Factor in lb/MMcf	Lead 5.0E-04	Cadmium 1.1E-03	Chromium 1.4E-03	Manganese 3.8E-04	Nickel 2.1E-03
Potential Emission in tons/yr	2.219E-05	4.881E-05	6.212E-05	1.686E-05	9.318E-05

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

Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,000 MMBtu
 Emission Factors are from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03
 (SUPPLEMENT D 3/98)
 Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton