



August 22, 2008

TO: Interested Parties / Applicant
RE: Carrier Corporation / M097-24135-00015
FROM: Kyle Walker, Deputy Director
Department of Public Works

Notice of Decision: Approval - Effective Immediately

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

If you wish to challenge this decision, IC 4-21.5-3 and IC 13-15-6-1 require that you file a petition for administrative review. This petition may include a request for stay of effectiveness and must be submitted to the Office of Environmental Adjudication, 100 North Senate Avenue, Government Center North, Room 501, Indianapolis, IN 46204, **within fifteen (15) calendar days of the receipt of this notice**. The filing of a petition for administrative review is complete on the earliest of the following dates that apply to the filing:

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

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

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

If you have technical questions regarding the enclosed documents, please contact the Indianapolis Office of Environmental Services, Air Permits at (317) 327-2234.

Enclosures



Air Quality Hotline: 317-327-4AIR | knozone.com

Department of Public Works
Office of Environmental Services

2700 Belmont Avenue
Indianapolis, IN 46221

317-327-2234
Fax 327-2274
TDD 327-5186
indygov.org/dpw



MINOR SOURCE OPERATING PERMIT RENEWAL

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
AND
INDIANAPOLIS OFFICE OF ENVIRONMENTAL SERVICES**

**Carrier Corporation
7310 West Morris Street
Indianapolis, Indiana 46231**

(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.

This permit is issued to the above mentioned company under the provisions of 326 IAC 2-1.1, 326 IAC 2-6.1 and 40 CFR 52.780, with conditions listed on the attached pages.

Indiana statutes from IC 13 and rules from 326 IAC, quoted in conditions in this permit, are those applicable at the time the permit was issued. The issuance or possession of this permit shall not alone constitute a defense against an alleged violation of any law, regulation or standard, except for the requirement to obtain a MSOP under 326 IAC 2-6.1.

| | |
|--|----------------------------------|
| Operation Permit No.: M097-24135-00015 | |
| Issued by: | Issuance Date: August 22, 2008 |
| <i>Original signed by:</i> | |
| Kyle Walker, Deputy Director Department of Public Works | Expiration Date: August 22, 2018 |



Air Quality Hotline: 317-327-4AIR | knozone.com

**Department of Public Works
Office of Environmental Services**

2700 Belmont Avenue | 317-327-2234
Indianapolis, IN 46221 | Fax 327-2274
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SECTION A SOURCE SUMMARY

This permit is based on information requested by the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ) and Office of Environmental Services (OES). The information describing the source contained in conditions A.1 and A.2 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 2-5.1-3(c)][326 IAC 2-6.1-4(a)]

The Permittee owns and operates a stationary air conditioning and furnace manufacturing facility.

| | |
|------------------------------|--|
| Source Address: | 7310 West Morris Street, Indianapolis, IN 46231 |
| Mailing Address: | 7310 West Morris Street, Indianapolis, IN 46231 |
| General Source Phone Number: | 317-481-5746 |
| SIC Code: | 3585 |
| County Location: | Marion |
| Source Location Status: | Nonattainment for PM2.5 standard Attainment for all other criteria pollutants |
| Source Status: | Minor Source Operating Permit Program Minor Source, under PSD, Emission Offset, and Nonattainment NSR 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

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

- (a) Six (6) Fan Coil Fin Presses: Emission Unit IDs P-1 and P-2 (both installed in 1991), P-3 (installed in 1998), P-4 (installed in 1991), P-5 (installed in 2003), P-7 (installed in 2005), each press with 36.75 inches wide Coil Stock with maximum capacity of 500 pounds of aluminum per hour, and one (1) Fin Press, Emission Unit ID P-6 (installed in 2003), with 18 inches wide Coil Stock and maximum capacity of 300 pounds of aluminum per hour; all presses utilize FL-89-40 Low VOC Fin Stamping Evaporative Lubricant as metal stamping fluid (mineral spirit) containing 2.72 pounds of VOC per gallon. Emissions are exhausted to the atmosphere through Stack GV-1.
- (b) One (1) Soil Remediation System (removal of perchloroethylene from soil and groundwater), Emission Unit ID SR-1, consisting of one (1) Soil Vapor Extraction Pump with maximum throughput capacity of 150 scfm of air, one (1) Air Sparging Pump, and one (1) Air Stripping Pump with maximum capacity of 10 liters per minute, one (1) soil vent well and one (1) air stripping tower for Air Stripping and Soil Vapor Extraction. Perchloroethylene (PCE) emission is controlled by the Vapor Phase Activated Carbon unit. Emissions are exhausted to the atmosphere through Stack RE-2. This Soil Remediation System was installed in 1994.
- (c) Five (5) Aqueous Detergent Parts Washer Systems, Emission Unit IDs W-1, W-2, W-3, W-4, and W-5, consisting of wash/rinse furnaces burning natural gas with total maximum capacity of 29.1 million cubic feet of Natural Gas per year and parts washers using cleaners containing glycol ether with maximum cleaner usage capacity of 37,000 pounds per year each. Parts Washer System Emission Unit ID W-1 was installed in 1993, W-2 and W-3 were installed in 1994, W-4 and W-5 in 1999. Emissions are exhausted to the atmosphere through Stacks PE-15, PE-35, PE-37, PE-41, and PE-45.

- (d) Three (3) Autobrazers, Emission Units IDs AB-1, AB-2, and AB-3, burning natural gas, with maximum heat input capacity of 0.5, 0.9, and 1.2 MMBtu/hr, respectively. Emissions are exhausted to the atmosphere through Stacks PE-39, PE-50, and PE-51. A combined total production capacity of the three (3) Autobrazers is 267 fan coil slabs per hour using 28.8 lb/hour of braze rings and 0.87 lb/hr of gas flux.
- (e) Four (4) forced draft Cooling Towers, Emission Units IDs CT-1, CT-2, CT-3, and CT-4, constructed in 2006, used to provide indirect cooling of closed loop chiller water used in the air conditioning system for the buildings, and for indirect cooling of closed loop air compressor cooling water systems. As water that is recirculated within the towers mists, drifts and evaporates, mineral deposits in the water form particulate emissions. Cooling Towers CT-1 and CT-2 have a maximum evaporative water recirculation rate of 2,400 gallons per hour each; CT-3 and CT-4 have a maximum evaporative water recirculation rate of 900 gallons per hour each.
- (f) One (1) R&D Paint Booth, used for Research and Development, constructed in 2006, with maximum surface coating capacity of six (6) prototype HVAC units per day using no more than one (1) quart of air dry paint and one (1) pint of reducer per unit. PM emissions are controlled by 95% efficient paint arrestor panel filters.
- (g) Natural gas fired heating units:
 - (1) One hundred three (103) Building 8 heaters/air make-up units, with total heat input capacity of 25.809 MMBtu/hr.
 - (2) Twenty three (23) Building 9 heaters/air make-up units, with total heat input capacity of 6.173 MMBtu/hr.
 - (3) Five (5) Fire Water and R&D Associated Humidity Control Boilers, with total heat input capacity of 5.559 MMBtu/hr.
 - (4) Four hundred forty five (445) Production Line Test Stations, with total heat input capacity of 2.299 MMBtu/hr.
- (h) Two (2) Emergency Generators firing natural gas, Emission Units IDs Generator-1 and Generator-2, with maximum output capacity of 45 HP and 90 HP, respectively, operating no more than 500 hours per year, constructed in 1969.
- (i) One (1) Emergency Generator firing diesel fuel, Emission Units ID Generator-3, with maximum output capacity of 377 HP, operating no more than 500 hours per year, constructed in 2003.

SECTION B GENERAL CONDITIONS

B.1 Definitions [326 IAC 2-1.1-1]

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 2-1.1-1) shall prevail.

B.2 Permit Term [326 IAC 2-6.1-7(a)][326 IAC 2-1.1-9.5][IC 13-15-3-6(a)]

- (a) This permit, M097-24135-00015, is issued for a fixed term of ten (10) years from the issuance date of this permit, as determined in accordance with IC 4-21.5-3-5(f) and IC 13-15-5-3. Subsequent revisions, modifications, or amendments of this permit do not affect the expiration date of this permit.
- (b) If IDEM, OAQ and OES, upon receiving a timely and complete renewal permit application, fails to issue or deny the permit renewal prior to the expiration date of this permit, this existing permit shall not expire and all terms and conditions shall continue in effect, until the renewal permit has been issued or denied.

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

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

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

B.4 Enforceability

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

B.5 Severability

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

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

B.7 Duty to Provide Information

- (a) The Permittee shall furnish to IDEM, OAQ and OES, within a reasonable time, any information that IDEM, OAQ and OES 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 an "authorized individual" as defined by 326 IAC 2-1.1-1(1). Upon request, the Permittee shall also furnish to IDEM, OAQ and OES 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

- (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 an "authorized individual" 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) An "authorized individual" is defined at 326 IAC 2-1.1-1(1).

B.9 Annual Notification [326 IAC 2-6.1-5(a)(5)]

- (a) An annual notification shall be submitted by an authorized individual to the Office of Air Quality stating whether or not the source is in operation and in compliance with the terms and conditions contained in this permit.
- (b) The annual notice shall be submitted in the format attached no later than March 1 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, IN 46204-2251

and

Indianapolis Office of Environmental Services
Air Compliance
2700 South Belmont Avenue
Indianapolis, IN 46221

- (c) The notification 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 and OES on or before the date it is due.

B.10 Preventive Maintenance Plan [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 and OES upon request and within a reasonable time, and shall be subject to review and approval by IDEM, OAQ and OES. IDEM, OAQ and OES 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 an "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (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 Prior Permits Superseded [326 IAC 2-1.1-9.5]

- (a) All terms and conditions of permits established prior to 097-24135-00015 and issued pursuant to permitting programs approved into the state implementation plan have been either:
 - (1) incorporated as originally stated,
 - (2) revised, or
 - (3) deleted.
- (b) All previous registrations and permits are superseded by this permit.

B.12 Termination of Right to Operate [326 IAC 2-6.1-7(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 one hundred twenty days prior to the date of expiration of the source's existing permit, consistent with 326 IAC 2-6.1-7.

B.13 Permit Renewal [326 IAC 2-6.1-7]

- (a) The application for renewal shall be submitted using the application form or forms prescribed by IDEM, OAQ and OES and shall include the information specified in 326 IAC 2-6.1-7. Such information shall be included in the application for each emission unit at this source. The renewal application does require the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

Request for renewal shall be submitted to:

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

and

Indianapolis Office of Environmental Services
Air Compliance
2700 South Belmont Avenue
Indianapolis, IN 46221

- (b) A timely renewal application is one that is:
 - (1) Submitted at least one hundred twenty days 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 and OES 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 2-6.1 until IDEM, OAQ and OES 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 and OES any additional information identified as being needed to process the application.

B.14 Permit Amendment or Revision [326 IAC 2-5.1-3(e)(3)][326 IAC 2-6.1-6]

- (a) Permit amendments and revisions are governed by the requirements of 326 IAC 2-6.1-6 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, IN 46204-2251

and

Indianapolis Office of Environmental Services
Air Compliance
2700 South Belmont Avenue
Indianapolis, IN 46221

Any such application shall be certified by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (c) The Permittee shall notify the OAQ within thirty (30) calendar days of implementing a notice-only change. [326 IAC 2-6.1-6(d)]

B.15 Source Modification Requirement

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

B.16 Inspection and Entry

[326 IAC 2-5.1-3(e)(4)(B)][326 IAC 2-6.1-5(a)(4)][IC 13-14-2-2][IC 13-17-3-2][IC 13-30-3-1]

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

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

B.17 Transfer of Ownership or Operational Control [326 IAC 2-6.1-6]

- (a) The Permittee must comply with the requirements of 326 IAC 2-6.1-6 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, IN 46204-2251

and

Indianapolis Office of Environmental Services
Air Permits
2700 South Belmont Avenue
Indianapolis, IN 46221

The application which shall be submitted by the Permittee does require the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

- (c) The Permittee may implement notice-only changes addressed in the request for a notice-only change immediately upon submittal of the request. [326 IAC 2-6.1-6(d)(3)]

B.18 Annual Fee Payment [326 IAC 2-1.1-7]

- (a) The Permittee shall pay annual fees to OES within thirty (30) calendar days of receipt of a billing.

- (b) The Permittee may call the following telephone numbers: (317) 327-2234 (ask for OES Air Compliance to determine the appropriate permit fee).

B.19 Credible Evidence [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 2-6.1-5(a)(1)]

C.1 Permit Revocation [326 IAC 2-1.1-9]

Pursuant to 326 IAC 2-1.1-9 (Revocation of Permits), this permit to operate may be revoked for any of the following causes:

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

C.2 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 thirty percent (30%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.
- (b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

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

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

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

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

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

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

C.6 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, IN 46204-2251

and

Indianapolis Office of Environmental Services
Air Enforcement
2700 South Belmont Avenue
Indianapolis, IN 46221

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

- (e) **Procedures for Asbestos Emission Control**
The Permittee shall comply with the applicable emission control procedures in 326 IAC 14-10-4 and 40 CFR 61.145(c). Per 326 IAC 14-10-1, emission control requirements are applicable for any removal or disturbance of RACM greater than three (3) linear feet on pipes or three (3) square feet on any other facility components or a total of at least 0.75 cubic feet on all facility components.
- (f) **Demolition and Renovation**
The Permittee shall thoroughly inspect the affected facility or part of the facility where the demolition or renovation will occur for the presence of asbestos pursuant to 40 CFR 61.145(a).
- (g) **Indiana Licensed Asbestos Inspector**
The Permittee shall comply with 326 IAC 14-10-1(a) that requires the owner or operator, prior to a renovation/demolition, to use an Indiana Licensed Asbestos Inspector to thoroughly inspect the affected portion of the facility for the presence of asbestos. The requirement to use an Indiana Licensed Asbestos inspector is not federally enforceable.

Testing Requirements [326 IAC 2-6.1-5(a)(2)]

C.7 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, IN 46204-2251

and

Indianapolis Office of Environmental Services
Air Compliance
2700 South Belmont Avenue
Indianapolis, IN 46221

no later than thirty-five (35) days prior to the intended test date. The protocol submitted by the Permittee does not require certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

- (b) The Permittee shall notify IDEM, OAQ of the actual test date at least fourteen (14) days prior to the actual test date. The notification submitted by the Permittee does not require certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (c) Pursuant to 326 IAC 3-6-4(b), all test reports must be received by IDEM, OAQ and OES not later than forty-five (45) days after the completion of the testing. An extension may be granted by IDEM, OAQ and OES 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.8 Compliance Requirements [326 IAC 2-1.1-11]

IDEM, OAQ and OES 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 2-6.1-5(a)(2)]

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

Compliance with applicable requirements shall be documented as required by this permit. The Permittee shall be responsible for installing any necessary equipment and initiating any required monitoring related to that equipment. All monitoring and record keeping requirements not already legally required shall be implemented when operation begins.

C.10 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.11 Instrument Specifications [326 IAC 2-1.1-11]

- (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

C.12 Actions Related to Noncompliance Demonstrated by a Stack Test

- (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 and OES, 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 an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

Record Keeping and Reporting Requirements [326 IAC 2-6.1-5(a)(2)]

C.13 Malfunctions Report [326 IAC 1-6-2]

Pursuant to 326 IAC 1-6-2 (Records; Notice of Malfunction):

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

C.14 General Record Keeping Requirements [326 IAC 2-6.1-5]

- (a) Records of all required monitoring data, reports and support information required by this permit shall be retained for a period of at least five (5) years from the date of monitoring sample, measurement, report, or application. These records shall be physically present or electronically accessible at the source location for a minimum of three (3) years. The records may be stored elsewhere for the remaining two (2) years as long as they are available upon request. If the Commissioner or OES makes a request for records to the Permittee, the Permittee shall furnish the records to the Commissioner or OES 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.15 General Reporting Requirements [326 IAC 2-1.1-11] [326 IAC 2-6.1-2] [IC 13-14-1-13]

- (a) 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, IN 46204-2251

and

Indianapolis Office of Environmental Services
Air Compliance
2700 South Belmont Avenue
Indianapolis, IN 46221

- (b) 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 and OES on or before the date it is due.
- (c) 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 an "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (d) Reporting periods are based on calendar years, unless otherwise specified in this permit. For the purpose of this permit "calendar year" means the twelve (12) month period from January 1 to December 31 inclusive.

SECTION D.1 FACILITY OPERATION CONDITIONS

Emission Units Description:

- (a) Six (6) Fan Coil Fin Presses: Emission Unit IDs P-1 and P-2 (both installed in 1991), P-3 (installed in 1998), P-4 (installed in 1991), P-5 (installed in 2003), P-7 (installed in 2005), each press with 36.75 inches wide Coil Stock with maximum capacity of 500 pounds of aluminum per hour, and one (1) Fin Press, Emission Unit ID P-6 (installed in 2003), with 18 inches wide Coil Stock and maximum capacity of 300 pounds of aluminum per hour; all presses utilize FL-89-40 Low VOC Fin Stamping Evaporative Lubricant as metal stamping fluid (mineral spirit) containing 2.72 pounds of VOC per gallon. Emissions are exhausted to the atmosphere through the Stack GV-1.

(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

D.1.1 Volatile Organic Compounds (VOCs) [326 IAC 8-1-6]

An application for a prior approval shall be submitted by the source in accordance with 326 IAC 2 to the IDEM, OAQ and OES if the source proposes to modify any of the Emission Units IDs P-1, P2, P-2, P-4, P-5, P-6, and P-7 so that their individual potential to emit VOC becomes equal or greater than 25 tons per year.

SECTION D.2

FACILITY OPERATION CONDITIONS

Emission Units Description:

- (c) Five (5) Aqueous Detergent Parts Washer Systems, Emission Unit IDs W-1, W-2, W-3, W-4, and W-5, consisting of wash/rinse furnaces burning natural gas with total maximum capacity of 29.1 million cubic feet of Natural Gas per year and parts washers using cleaners containing glycol ether with maximum cleaner usage capacity of 37,000 pounds per year each. Parts Washer System Emission Unit ID W-1 was installed in 1993, W-2 and W-3 were installed in 1994, W-4 and W-5 - in 1999. Emissions are exhausted to the atmosphere through the Stacks PE-15, PE-35, PE-37, PE-41, and PE-45.

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

Emission Limitations and Standards

D.2.1 Volatile Organic Compounds [326 IAC 8-1-1(b)]

- (a) Five (5) Aqueous Detergent Parts Washer Systems, Emission Unit IDs W-1, W-3, W-4, and W-5, shall utilize cleaners containing Glycol Ether in the amount of no more than 1% by weight; cleaner throughput shall not be greater than one hundred forty eight (148) pounds per day. These limitations will ensure VOC potential to emit before add-on control being below fifteen (15) pounds per day and, pursuant to 326 IAC 8-1-1(b), shall exempt Parts Washer Systems Emission Unit W-1, W-3, W-4, and W-5 from 326 IAC 8 requirements.
- (b) Before making any change or modification to the Emission Units IDs W-1, W-3, W-4, and W-5 which may increase its actual VOC emission before add-on controls to 15 pounds per day, and application for prior permitting approval shall be submitted to the IDEM, OAQ and OES.

Record Keeping Requirements

D.2.2 Record Keeping Requirements [326 IAC 8-1-1(c)]

- (a) Pursuant to 326 IAC 5-1-1(c), the owner or operator of this source shall keep records of the daily cleaner consumption and VOC/HAP content in the cleaners used in the Parts Washer Systems Emission Unit IDs W-1, W-3, W-4, and W-5. Records shall include purchase orders, invoices, and material safety data sheets (MSDS) necessary to verify the type, amount used and daily VOC emissions.
- (b) All records shall be maintained in accordance with Section C.14 - General Record Keeping Requirements, of this permit.

SECTION D.3

EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

- (b) One (1) Soil Remediation System (removal of perchloroethylene from soil and groundwater), Emission Unit ID SR-1, consisting of one (1) Soil Vapor Extraction Pump with maximum throughput capacity of 150 scfm of air, one (1) Air Sparging Pump, and one (1) Air Stripping Pump with maximum capacity of 10 liters per minute, one (1) soil vent well and one (1) air stripping tower for Air Stripping and Soil Vapor Extraction. Perchloroethylene (PCE) emission is controlled by the Vapor Phase Activated Carbon unit. Emissions are exhausted to the atmosphere through Stack RE-2. This Soil Remediation System was installed in 1994

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

Record Keeping and Reporting Requirements

D.3.1 Record Keeping Requirements

- (a) Records of Perchloroethylene (PCE) and/or any other HAP emissions from this soil and groundwater remediation system shall include HAP concentrations, exhaust flow rates, and monthly HAP emissions.
- (b) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

SECTION D.4

FACILITY OPERATION CONDITIONS

Emission Units Description:

(g) Natural gas fired heating units:

(3) Five (5) Fire Water and R&D Associated Humidity Control Boilers, with total heat input capacity of 5.559 MMBtu/hr.

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

Emission Limitations and Standards

D.4.1 Particulate Matter (PM) [326 IAC 6-2-4]

Pursuant to 326 IAC 6-2-4(a) (Particulate Rules: Emission limitations for facilities specified in 326 IAC 6-2-1(d)), particulate matter emission from indirect heating units at sources with total maximum operating capacity less than 10 MMBtu/hr shall not exceed 0.6 lb/MMBtu heat input. Particulate matter emission from each of the five (5) Fire Water and R&D Associated Humidity Control Boilers (total heat input capacity of 5.559 MMBtu/hr), utilized for indirect heating purposes and constructed after September 21, 1983, shall be limited to 0.6 pounds per MMBtu heat input.

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
and
INDIANAPOLIS OFFICE OF ENVIRONMENTAL SERVICES
AIR COMPLIANCE**

**MINOR SOURCE OPERATING PERMIT
CERTIFICATION**

| | |
|--------------------------|-------------------------|
| Company Name: | Carrier Corporation |
| Address: | 7310 West Morris Street |
| City, State, ZIP: | Indianapolis, IN 46231 |
| Phone #: | 317-481-5746 |
| MSOP #: | M097-24135-00015 |

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
and
CITY OF INDIANAPOLIS
OFFICE OF ENVIRONMENTAL SERVICES
AIR COMPLIANCE**

**MINOR SOURCE OPERATING PERMIT
ANNUAL NOTIFICATION**

This form should be used to comply with the notification requirements under 326 IAC 2-6.1-5(a)(5).

| | |
|--------------------------|-------------------------|
| Company Name: | Carrier Corporation |
| Address: | 7310 West Morris Street |
| City, State, ZIP: | Indianapolis, IN 46231 |
| Phone #: | 317-481-5746 |
| MSOP #: | M097-24135-00015 |

I hereby certify that Carrier Corporation is :

still in operation.

no longer in operation.

I hereby certify that Carrier Corporation is :

in compliance with the requirements of MSOP 097-24135-00015.

not in compliance with the requirements of MSOP 097-24135-00015.

| |
|---------------------------------------|
| Authorized Individual (typed): |
| Title: |
| Signature: |
| Date: |

If there are any conditions or requirements for which the source is not in compliance, provide a narrative description of how the source did or will achieve compliance and the date compliance was, or will be achieved.

| |
|-----------------------|
| Noncompliance: |
| |
| |
| |
| |

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
FAX NUMBER - 317 233-6865
and
CITY OF INDIANAPOLIS
OFFICE OF ENVIRONMENTAL SERVICES
AIR COMPLIANCE**

MALFUNCTION REPORT

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

THIS FACILITY MEETS THE APPLICABILITY REQUIREMENTS BECAUSE IT HAS POTENTIAL TO EMIT 25 TONS/YEAR PARTICULATE MATTER ?_____, 25 TONS/YEAR SULFUR DIOXIDE ?_____, 25 TONS/YEAR NITROGEN OXIDES?_____, 25 TONS/YEAR VOC ?_____, 25 TONS/YEAR HYDROGEN SULFIDE ?_____, 25 TONS/YEAR TOTAL REDUCED SULFUR ?_____, 25 TONS/YEAR REDUCED SULFUR COMPOUNDS ?_____, 25 TONS/YEAR FLUORIDES ?_____, 100 TONS/YEAR CARBON MONOXIDE ?_____, 10 TONS/YEAR ANY SINGLE HAZARDOUS AIR POLLUTANT ?_____, 25 TONS/YEAR ANY COMBINATION HAZARDOUS AIR POLLUTANT ?_____, 1 TON/YEAR LEAD OR LEAD COMPOUNDS MEASURED AS ELEMENTAL LEAD ?_____, OR IS A SOURCE LISTED UNDER 326 IAC 2-5.1-3(2) ?_____. EMISSIONS FROM MALFUNCTIONING CONTROL EQUIPMENT OR PROCESS EQUIPMENT CAUSED EMISSIONS IN EXCESS OF APPLICABLE LIMITATION _____.

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

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

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

COMPANY: _____ PHONE NO. () _____
LOCATION: (CITY AND COUNTY) _____
PERMIT NO. _____ AFS PLANT ID: _____ AFS POINT ID: _____ INSP: _____
CONTROL/PROCESS DEVICE WHICH MALFUNCTIONED AND REASON: _____

DATE/TIME MALFUNCTION STARTED: ____/____/20____ _____ AM / PM

ESTIMATED HOURS OF OPERATION WITH MALFUNCTION CONDITION: _____

DATE/TIME CONTROL EQUIPMENT BACK-IN SERVICE ____/____/20____ _____ AM/PM

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

ESTIMATED AMOUNT OF POLLUTANT EMITTED DURING MALFUNCTION: _____

MEASURES TAKEN TO MINIMIZE EMISSIONS: _____

REASONS WHY FACILITY CANNOT BE SHUTDOWN DURING REPAIRS:

CONTINUED OPERATION REQUIRED TO PROVIDE ESSENTIAL* SERVICES: _____

CONTINUED OPERATION NECESSARY TO PREVENT INJURY TO PERSONS: _____

CONTINUED OPERATION NECESSARY TO PREVENT SEVERE DAMAGE TO EQUIPMENT: _____

INTERIM CONTROL MEASURES: (IF APPLICABLE) _____

MALFUNCTION REPORTED BY: _____ TITLE: _____
(SIGNATURE IF FAXED)

MALFUNCTION RECORDED BY: _____ DATE: _____ TIME: _____

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

326 IAC 1-6-1 Applicability of rule

Sec. 1. This rule applies to the owner or operator of any facility required to obtain a permit under 326 IAC 2-5.1 or 326 IAC 2-6.1.

326 IAC 1-2-39 "Malfunction" definition

Sec. 39. Any sudden, unavoidable failure of any air pollution control equipment, process, or combustion or process equipment to operate in a normal and usual manner.

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

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

**Indiana Department of Environmental Management
Office of Air Quality
and
City of Indianapolis
Office of Environmental Services**

**Addendum to the Technical Support Document
for a Minor Source Operating Permit Renewal**

Source Name: Carrier Corporation
 Source Location: 7310 West Morris Street, Indianapolis, IN 46231
 County: Marion
 SIC Code: 3585
 Permit Renewal No.: M097-24135-00015
 Permit Reviewer: Boris Gorlin

On July 17, 2008 the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ) and the Indianapolis Office of Environmental Services (OES) had a notice published in the Indianapolis Star, Indianapolis, Indiana, stating that Carrier Corporation had applied for a Minor Source Operating Permit Renewal relating to the operation of an air conditioning and furnace manufacturing facility. The notice also stated that OAQ and OES proposed to issue a permit for this operation and provided information on how the public could review the proposed permit and other documentation. Finally, the notice informed interested parties that there was a period of thirty (30) days to provide comments on whether or not this permit should be issued as proposed.

OAQ and OES received no public notice comments. However, upon further review, OAQ and OES have decided to make the following changes to the MSOP Renewal. The TSD will remain as it originally appeared when published. Changes to the permit or technical support material that occur after the permit has published for 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. Bolded language has been added and the language with strikeout has been deleted.

Change 1

OAQ and OES have made revisions to the permit to reflect the May 8, 2008 U.S. EPA guidance on New Source Review Implementation for PM2.5. Marion County has been classified as nonattainment for PM2.5 in 70 FR 943 dated January 5, 2005. On May 8th, 2008, U.S. EPA promulgated specific New Source Review rules for PM2.5 emissions, and the effective date of these rules was July 15th, 2008. Therefore, direct PM2.5 and SO₂ emissions were reviewed pursuant to the requirements of Non-attainment New Source Review, 326 IAC 2-1.1-5. This existing source is not a major stationary source, under Non-attainment New Source Review (326 IAC 2-1.1-5), because the potential to emit of PM2.5 and SO₂ after issuance are each less than 100 tons per year. Therefore, pursuant to 326 IAC 2-1.1-5, the Non-attainment New Source Review requirements do not apply. However, the potential to emit PM2.5 must be included in the Potential to Emit after issuance table (assuming PM2.5 emissions are equivalent to PM10 emissions). The table is revised in this Addendum as follows:

Unrestricted Potential Emissions

This table reflects the unrestricted potential emissions of the source.

| Pollutant | Potential To Emit (tons/year) |
|---------------------|-------------------------------|
| PM | 4.210 |
| PM10 ⁽¹⁾ | 4.210 |
| PM2.5 | 4.210 |
| SO ₂ | 0.152 |
| NO _x | 25.80 |
| VOC | 79.37 |
| CO | 22.05 |

(1) Under the Part 70 Permit program (40 CFR 70), particulate matter with an aerodynamic diameter less than or equal to a nominal 10 micrometers (PM10), not particulate matter (PM), is considered as a "regulated air pollutant". ~~US EPA has directed states to regulate PM10 emissions as surrogate for PM2.5 emissions.~~

Change 2

The following change was made to the Permit Condition A.1, based on the May 8, 2008 NSR rules guidance for PM2.5 emissions:

A.1 General Information [326 IAC 2-5.1-3(c)][326 IAC 2-6.1-4(a)]

The Permittee owns and operates a stationary air conditioning and furnace manufacturing facility.

| | |
|------------------------------|--|
| Source Address: | 7310 West Morris Street, Indianapolis, IN 46231 |
| Mailing Address: | 7310 West Morris Street, Indianapolis, IN 46231 |
| General Source Phone Number: | 317-481-5746 |
| SIC Code: | 3585 |
| County Location: | Marion |
| Source Location Status: | Nonattainment for PM2.5 standard Attainment for all other criteria pollutants |
| Source Status: | Minor Source Operating Permit Program Minor Source, under PSD and , Emission Offset, and Nonattainment NSR Rules Minor Source, Section 112 of the Clean Air Act Not 1 of 28 Source Categories |

Change 3

On June 6, 2008, changes to 326 IAC 2-6.1-7 (Minor Source Operating Permit Program) concerning changes to the minor source operating permit renewal application submittal deadline became effective. Therefore, the following changes to Conditions B.12 and B.13 of M097-24315-00015 were made:

B.12 Termination of Right to Operate [326 IAC 2-6.1-7(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 **one hundred twenty** ~~ninety (90)~~ days prior to the date of expiration of the source's existing permit, consistent with 326 IAC 2-6.1-7.

B.13 Permit Renewal [326 IAC 2-6.1-7]

- ...
- (b) A timely renewal application is one that is:
- (1) Submitted at least **one hundred twenty** ~~ninety (90)~~ days 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 and OES on or before the date it is due.

**Indiana Department of Environmental Management
Office of Air Quality
and
Indianapolis Office of Environmental Services**

**Technical Support Document (TSD) for a
Minor Source Operating Permit Renewal**

Source Background and Description

| | |
|----------------------------|--|
| Source Name: | Carrier Corporation |
| Source Location: | 7310 West Morris Street, Indianapolis, IN 46231 |
| County: | Marion |
| SIC Code: | 3585 |
| Permit Renewal No.: | M097-24135-00015 |
| Permit Reviewer: | Boris Gorlin |

The Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ), and the Indianapolis Office of Environmental Services (OES) have reviewed an application from Carrier Corporation relating to the operation of an air conditioning and furnace manufacturing facility.

History

On December 26, 2006, Carrier Corporation submitted an application to IDEM, OAQ and OES requesting to renew its operating permit. Carrier Corporation was issued an MSOP on April 2, 2002.

Permitted Emission Units and Pollution Control Equipment

The source consists of the following permitted emission units and pollution control devices:

- (a) Six (6) Fan Coil Fin Presses: Emission Unit IDs P-1 and P-2 (both installed in 1991), P-3 (installed in 1998), P-4 (installed in 1991), P-5 (installed in 2003), P-7 (installed in 2005), each press with 36.75 inches wide Coil Stock with maximum capacity of 500 pounds of aluminum per hour, and one (1) Fin Press, Emission Unit ID P-6 (installed in 2003), with 18 inches wide Coil Stock and maximum capacity of 300 pounds of aluminum per hour; all presses utilize FL-89-40 Low VOC Fin Stamping Evaporative Lubricant as metal stamping fluid (mineral spirit) containing 2.72 pounds of VOC per gallon. Emissions are exhausted to the atmosphere through Stack GV-1.
- (b) One (1) Soil Remediation System (removal of perchloroethylene from soil and groundwater), Emission Unit ID SR-1, consisting of one (1) Soil Vapor Extraction Pump with maximum throughput capacity of 150 scfm of air, one (1) Air Sparging Pump, and one (1) Air Stripping Pump with maximum capacity of 10 liters per minute, one (1) soil vent well and one (1) air stripping tower for Air Stripping and Soil Vapor Extraction. Perchloroethylene (PCE) emission is controlled by the Vapor Phase Activated Carbon unit. Emissions are exhausted to the atmosphere through Stack RE-2. This Soil Remediation System was installed in 1994.
- (c) Five (5) Aqueous Detergent Parts Washer Systems, Emission Unit IDs W-1, W-2, W-3, W-4, and W-5, consisting of wash/rinse furnaces burning natural gas with total maximum capacity of 29.1 million cubic feet of Natural Gas per year and parts washers using cleaners containing glycol ether with maximum cleaner usage capacity of 37,000 pounds per year each. Parts Washer System Emission Unit ID W-1 was installed in 1993, W-2 and W-3 were installed in 1994, W-4 and W-5 in 1999. Emissions are exhausted to the atmosphere through Stacks PE-15, PE-35, PE-37, PE-41, and PE-45.
- (d) Three (3) Autobrazers, Emission Units IDs AB-1, AB-2, and AB-3, burning natural gas, with maximum heat input capacity of 0.5, 0.9, and 1.2 MMBtu/hr, respectively. Emissions are exhausted to the atmosphere through Stacks PE-39, PE-50, and PE-51. A combined total

production capacity of the three (3) Autobrizers is 267 fan coil slabs per hour using 28.8 lb/hour of braze rings and 0.87 lb/hr of gas flux.

- (e) Four (4) forced draft Cooling Towers, Emission Units IDs CT-1, CT-2, CT-3, and CT-4, constructed in 2006, used to provide indirect cooling of closed loop chiller water used in the air conditioning system for the buildings, and for indirect cooling of closed loop air compressor cooling water systems. As water that is recirculated within the towers mists, drifts and evaporates, mineral deposits in the water form particulate emissions. Cooling Towers CT-1 and CT-2 have a maximum evaporative water recirculation rate of 2,400 gallons per hour each; CT-3 and CT-4 have a maximum evaporative water recirculation rate of 900 gallons per hour each.
- (f) One (1) R&D Paint Booth, used for Research and Development, constructed in 2006, with maximum surface coating capacity of six (6) prototype HVAC units per day using no more than one (1) quart of air dry paint and one (1) pint of reducer per unit. PM emissions are controlled by 95% efficient paint arrestor panel filters.
- (g) Natural gas fired heating units:
 - (1) One hundred three (103) Building 8 heaters/air make-up units, with total heat input capacity of 25.809 MMBtu/hr.
 - (2) Twenty three (23) Building 9 heaters/air make-up units, with total heat input capacity of 6.173 MMBtu/hr.
 - (3) Five (5) Fire Water and R&D Associated Humidity Control Boilers, with total heat input capacity of 5.559 MMBtu/hr.
 - (4) Four hundred forty five (445) Production Line Test Stations, with total heat input capacity of 2.299 MMBtu/hr.

Unpermitted Emission Units and Pollution Control Equipment

The source also consists of the following unpermitted emission units (see Enforcement Issue section):

- (a) Two (2) Emergency Generators firing natural gas, Emission Units IDs Generator-1 and Generator-2, with maximum output capacity of 45 HP and 90 HP, respectively, operating no more than 500 hours per year, constructed in 1969.
- (b) One (1) Emergency Generator firing diesel fuel, Emission Units ID Generator-3, with maximum output capacity of 377 HP, operating no more than 500 hours per year, constructed in 2003.

Existing Approvals

Since the issuance of the MSOP 097-15061-00015 on April 1, 2002, the source has constructed or has been operating under the following approvals as well:

- (a) First MSOP Notice-Only Change No. 097-16837-00015, issued on December 6, 2002 (change in the Soil Remediation System operation).
- (b) Second MSOP Notice-Only Change 097-19004-00015, issued on May 17, 2005 (removal of the Annual Emission Statement requirement).
- (c) Third MSOP Notice-Only Change 097-21725-00015, issued on November 3, 2006 (change of the Metal Stamping Fluid, modification of the Soil Remediation System, addition of: one (1) Fin Press, one (1) Autobrazer, four (4) forced draft Cooling Towers, and one (1) Paint Booth, used for Research and Development).

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 permits and notices of change are superseded by this permit.

Enforcement Issue

- (a) There are no enforcement actions pending.
- (b) Emergency Generators Emission Units Generator-1 and Generator-2, constructed in 1969, and Emergency Generator-3, constructed in 2003, each have PTE less than minimum permitting thresholds (see TSD Appendix A). Therefore, these emission units have not been constructed without a Permit / Operated without a Permit.

Emission Calculations

The calculations submitted by the applicant have been verified and found to be accurate and correct. These calculations are provided in Appendix A of this document (11 pages).

County Attainment Status

The source is located in Marion County.

| Pollutant | Designation |
|---|--|
| SO ₂ | Better than national standards. |
| CO | Attainment effective February 18, 2000, for the part of the city of Indianapolis bounded by 11 th Street on the north; Capitol Avenue on the west; Georgia Street on the south; and Delaware Street on the east. Unclassifiable or attainment effective November 15, 1990, for the remainder of Indianapolis and Marion County. |
| O ₃ | Attainment effective November 8, 2007, for the 8-hour ozone standard. ¹ |
| PM ₁₀ | Unclassifiable effective November 15, 1990. |
| NO ₂ | Cannot be classified or better than national standards. |
| Pb | Attainment effective July 10, 2000, for the part of Franklin Township bounded by Thompson Road on the south; Emerson Avenue on the west; Five Points Road on the east; and Troy Avenue on the north. Attainment effective July 10, 2000, for the part of Wayne Township bounded by Rockville Road on the north; Girls School Road on the east; Washington Street on the south; and Bridgeport Road on the west. The remainder of the county is not designated. |
| ¹ Attainment effective October 18, 2000, for the 1-hour ozone standard for the Indianapolis area, including Marion County, and is a maintenance area for the 1-hour ozone National Ambient Air Quality Standards (NAAQS) for purposes of 40 CFR 51, Subpart X*. The 1-hour designation was revoked effective June 15, 2005. Basic Nonattainment effective 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 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 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. Therefore, VOC and NOx emissions are considered when evaluating the rule applicability relating to ozone. Marion County has

been designated as attainment or unclassifiable for ozone. Therefore, VOC and NOx emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.

- (b) **PM2.5**
 Marion County has been classified as nonattainment for PM2.5 in 70 FR 943 dated January 5, 2005. Until U.S. EPA adopts specific New Source Review rules for PM2.5 emissions, it has directed states 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**
 Marion County has been classified as attainment or unclassifiable in Indiana for all other criteria pollutants. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.
- (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 | Potential To Emit (tons/year) |
|---------------------|-------------------------------|
| PM | 4.210 |
| PM10 ⁽¹⁾ | 4.210 |
| SO ₂ | 0.152 |
| NO _x | 25.80 |
| VOC | 79.37 |
| CO | 22.05 |

(1) Under the Part 70 Permit program (40 CFR 70), particulate matter with an aerodynamic diameter less than or equal to a nominal 10 micrometers (PM10), not particulate matter (PM), is considered as a "regulated air pollutant". US EPA has directed states to regulate PM10 emissions as surrogate for PM2.5 emissions.

| HAPs | Potential To Emit (tons/year) |
|-------------------|-------------------------------|
| Glycol Ethers | 2.299 |
| TOTAL HAPs | 4.391 |

- (a) The potentials to emit (PTE) (as defined in 326 IAC 2-1.1-1(16)) of VOC and NOx are less than one hundred (100) tons per year, but greater than or equal to twenty-five (25) tons per year. The PTE of all other regulated criteria pollutants are less than twenty-five (25) tons per year. Therefore, the source is subject to the provisions of 326 IAC 2-6.1. A Minor Source Operating Permit (MSOP) will be issued.
- (b) The potential to emit (PTE) (as defined in 326 IAC 2-1.1-1(16)) of any single HAP is less than ten (10) tons per year and the PTE of a combination of HAPs is less than twenty-five (25) tons per year. Therefore, this source is an area source under Section 112 of the Clean Air Act (CAA) and not 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.

Federal Rule Applicability

- (a) The New Source Performance Standard, 40 CFR 60, Subpart IIII (Standards Of Performance For Stationary Compression Ignition Internal Combustion Engines), is not included in this permit renewal for the existing three (3) Emergency Generators EU IDs Generator-1, Generator-2,

both constructed in 1969, and Generator-3, constructed in 2003, because they are not fire pumps and their construction or reconstruction was not commenced after July 11, 2005.

- (b) There are no other New Source Performance Standards (NSPS) (326 IAC 12 and 40 CFR Part 60) included in this permit renewal.
- (c) The 40 CFR Part 63 NESHAP, Subpart NNNN (Surface Coating of Large Appliances) is not included in this permit renewal for the fin presses Emission Units P-1 to P-7 because the metal stamping fluid (Evaporative Lubricant) is Protective Oil which is not considered "coating" for the purposes of this subpart.
- (d) The 40 CFR Part 63 NESHAP, Subpart Q (National Emission Standards for Hazardous Air Pollutants for Industrial Process Cooling Towers) is not included in this permit renewal for four (4) forced draft Cooling Towers, Emission Units CT-1, CT-2, CT-3, and CT-4, because these cooling towers will not be operated with chromium-based water treatment chemicals and are not major sources or integral parts of facilities that are major sources as defined in 40 CFR Part 63.401.
- (e) The 40 CFR Part 63 NESHAP, Subpart T (National Emission Standards for Hazardous Air Pollutants for Halogenated Solvent Cleaning) is not included in this permit renewal for five (5) Aqueous Detergent Parts Washer Systems, Emission Unit IDs W-1, W-2, W-3, W-4, and W-5, because no halogenated solvents listed in 40 CFR Part 63.460 are used in the parts washers.
- (f) The 40 CFR Part 63 NESHAP, Subpart ZZZZ (National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines/RICE) is not included in this permit renewal for three (3) Emergency Generators EU ID Generator-1, Generator-2, both constructed in 1969, and Generator-3 constructed in 2003, because they are not new or reconstructed stationary RICE constructed on or after June 12, 2006 at a major or area source of HAP emissions, and do not have capacity of more than 500 HP.
- (g) There are no other National Emission Standards for Hazardous Air Pollutants (NESHAP) (326 IAC 14, 326 IAC 20 and 40 CFR Part 63) included in this permit renewal.

State Rule Applicability - Entire Source

326 IAC 2-1.1-5 (Non-attainment New Source Review)

Marion County has been designated as nonattainment for PM_{2.5}. According to the EPA guidance memo dated April 5, 2005, PM₁₀ is to be utilized as a surrogate for PM_{2.5} until the EPA can promulgate the PM_{2.5} implementation rule. PM₁₀ emissions, and therefore PM_{2.5} emissions, from this source are less than one hundred (100) tons per twelve consecutive month period. Therefore, this source is not major under nonattainment new source review for PM_{2.5} emissions.

326 IAC 2-6 (Emission Reporting)

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

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 thirty percent (30%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.
- (b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

326 IAC 6.5 (Particulate Matter Limitations)

This source does not have potential particulate matter emissions greater than 100 tons per year, and since potential PM emissions are less than 10 tons, then actual PM emission will be less than 10 tons (See Appendix A page 1). Therefore, 326 IAC 6.5-1 does not apply.

326 IAC 6-5 (Fugitive Particulate Matter Emission Limitations)

This source is not subject to the requirements of 326 IAC 6-5, because it does not have potential fugitive particulate emissions greater than 25 tons per year.

326 IAC 8-2-4 (Coil coating operations)

This source is not subject to 326 IAC 8-2-4 (Coil coating operations) because the evaporative lubricant utilized in fin presses does not contain solids.

326 IAC 8-2-9 (Surface Coating Emission Limitations: miscellaneous metal coating operations)

This source is not subject to 326 IAC 8-2-9 (Surface Coating Emission Limitations: Miscellaneous Metal Coating Operations) because the evaporative lubricant utilized in fin presses is used for temporary surface preparation prior to stamping and is not used to prevent sticking of internally moving parts. Also, the evaporative lubricant does not contain solids.

326 IAC 12 (New Source Performance Standards)

See Federal Rule Applicability Section of this TSD.

326 IAC 20 (Hazardous Air Pollutants)

See Federal Rule Applicability Section of this TSD.

State Rule Applicability – Individual Facilities

326 IAC 6-2-4 (Particulate Matter)

Pursuant to 326 IAC 6-2-4(a) (Particulate Rules: Emission limitations for facilities specified in 326 IAC 6-2-1(d)), particulate matter emission from indirect heating units at sources with total maximum operating capacity less than 10 MMBtu/hr shall not exceed 0.6 lb/MMBtu heat input. Particulate matter emission from each of the five (5) Fire Water and R&D Associated Humidity Control Boilers (total heat input capacity of 5.559 MMBtu/hr), utilized for indirect heating purposes and constructed after September 21, 1983, shall be limited to 0.6 pounds per MMBtu heat input.

This new requirement was added because it was missing in previous permitting approvals.

326 IAC 8-1-1(b) and (c) (VOC Rules. Applicability)

(a) VOC (Glycol Ether) content and daily cleaner consumption in five (5) Aqueous Detergent Parts Washer Systems will be limited, respectively, to 1% by weight and 148 pounds per day, which will result in actual daily VOC emission below 15 pounds per day. Pursuant to 326 IAC 8-1-1(b), Emission Unit IDs W-1, W-2, W-3, W-4, and W-5 are not subject to any 326 IAC 8 rules. Therefore, rule 326 IAC 8-3 (Organic Solvent Degreasing Operations) does not apply.

(b) Pursuant to 326 IAC 8-1-1(c), as a facility with VOC restrictions based on actual emissions, the owner or operator of this source will keep records of the daily cleaner consumption and VOC/HAP content in the cleaners used in the Parts Washers Emission Units IDs W-1, W-2, W-3, W-4, and W-5. Records shall include purchase orders, invoices, and material safety data sheets (MSDS) necessary to verify the type, amount used and daily VOC emissions.

326 IAC 8-1-6 (New facilities; general reduction requirements)

This source is not subject to 326 IAC 8-1-6 (New facilities; general reduction requirements) because the fin presses Emission Units IDs P-1 through P-7, constructed after January 1, 1980, are operating independently from each other and potential emissions from each fin press are less than 25 tons per year (see Emission Calculations, Appendix A, page 1 of 11).

326 IAC 12 (New Source Performance Standards)

See Federal Rule Applicability Section of this TSD.

326 IAC 20 (Hazardous Air Pollutants)
See Federal Rule Applicability Section of this TSD.

Recommendation

The staff recommends to the OES Administrator that the MSOP 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 December 26, 2006.

Conclusion

The operation of this aluminum air conditioning coil manufacturing facility shall be subject to the conditions of the attached MSOP Renewal No.M097-24135-00015.

Company: Carrier Corporation
Address: 7310 West Morris Street, Indianapolis, IN 46206
Permit No.: M097-24135-00015
Plt ID: 097-00015

Reviewed and Verified by: B. Gorlin

Fin Presses Emission Calculation

**FL-89-40 Low VOC Fin Stamping Evaporative
Lubricant Properties**

| | |
|--|--------|
| Specific Gravity | 0.8175 |
| Lube Density (lb/gal) | 6.807 |
| Volatile Organic Compound Content (lb/gal) | 2.72 |

| Em. Unit | Capacity, alum. | Maximum Potential Fin Stamping Lubricant Usage | VOC Content | PTE Basis | | Maximum Potential Lube Use | | | Maximum Potential VOC | | | |
|----------------|-----------------|--|-------------|-----------|---------|----------------------------|--------------|---------------|-----------------------|--------------|----------------|---------------|
| | lb/hr | (gal/hr) | (lb/gal) | (hr/day) | (hr/yr) | gal/day | gal/mon | gal/yr | lb/hr | lb/day | lb/yr | ton/yr |
| P-1 | 500 | 0.8 | 2.72 | 24.00 | 8760 | 19.2 | 584 | 7,008 | 2.18 | 52.2 | 19,062 | 9.53 |
| P-2 | 500 | 0.8 | 2.72 | 24.00 | 8760 | 19.2 | 584 | 7,008 | 2.18 | 52.2 | 19,062 | 9.53 |
| P-3 | 500 | 0.8 | 2.72 | 24.00 | 8760 | 19.2 | 584 | 7,008 | 2.18 | 52.2 | 19,062 | 9.53 |
| P-4 | 500 | 0.8 | 2.72 | 24.00 | 8760 | 19.2 | 584 | 7,008 | 2.18 | 52.2 | 19,062 | 9.53 |
| P-5 | 500 | 0.8 | 2.72 | 24.00 | 8760 | 19.2 | 584 | 7,008 | 2.18 | 52.2 | 19,062 | 9.53 |
| P-6 | 300 | 0.5 | 2.72 | 24.00 | 8760 | 12.0 | 365 | 4,380 | 1.36 | 32.6 | 11,914 | 5.96 |
| P-7 | 500 | 0.8 | 2.72 | 24.00 | 8760 | 19.2 | 584 | 7,008 | 2.18 | 52.2 | 19,062 | 9.53 |
| Totals: | | | | | | 127.2 | 3,869 | 46,428 | 14.42 | 346.0 | 126,284 | 63.142 |

Company: Carrier Corporation
Address: 7310 West Morris Street, Indianapolis, IN 46206
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Cooling Towers Emissions

AP-42 Emission Factor (Fifth edition, January of 1995, Chapter 13.4, Table 13.4-1. PARTICULATE EMISSIONS FACTORS FOR WET COOLING TOWERS)

| | |
|--|-------|
| lb Drift per 1000 gallons recirculated | 1.7 |
| lb PM10 per 1000 gallons recirculated | 0.019 |

| Unit | Description | Maximum Cooling Tower Water Recirculation Rate | Total Dissolved Solids Content | Operating Hours | Maximum Potential PM/PM10 Emissions | | |
|----------------|-----------------------|--|--------------------------------|-----------------|-------------------------------------|--------------|--------------|
| | | (gal/hr) | (lb/gal) | | lb/hr | lb/yr | ton/yr |
| CT-1 | East Cooling Tower #1 | 2400 | 2,000 | 8760 | 0.046 | 399 | 0.1997 |
| CT-2 | East Cooling Tower #2 | 2400 | 2,000 | 8760 | 0.046 | 399 | 0.1997 |
| CT-3 | West Cooling Tower #1 | 900 | 2,000 | 8760 | 0.017 | 150 | 0.0749 |
| CT-4 | West Cooling Tower #2 | 900 | 2,000 | 8760 | 0.017 | 150 | 0.0749 |
| Totals: | | | | | 0.13 | 1,099 | 0.549 |

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Permit No.: M097-24135-00015

Pit ID: 097-00015

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VOC and HAP Emissions from Miscellaneous Products Usage by Production Area

| | Plantwide | Furnace | HE Furnace | Fan Coil |
|----------------|-----------|---------|------------|----------|
| Units Per Hour | 712 | 445 | 135 | 267 |

| Process | Department / Product Name | Product Usage Rate | Potential Hourly Usage | Potential Annual Usage | Specific Gravity | Product Density | VOC (as packaged) | VOC | VOC |
|------------------------------------|--------------------------------------|--------------------|------------------------|------------------------|------------------|-----------------|------------------------|--------------|---------------|
| | | gal/unit | gal/hr | gallons | | lb/gal | lb/gal | lb/hr | lb/year |
| | Area | | | | | | | | |
| | Plantwide | | | | | | | | |
| Solvent Cleaning/ Wipe cleaning | Solvent 142 | 0.000133 | 0.0945 | 827.46 | 0.79 | 6.62 | 6.62 | 0.625 | 5477.4 |
| Paint Touch-up and repair | Silver Sage Aerosol Paint (new gray) | 0.0000012 | 0.00085 | 7.45 | 1.05 | 8.76 | 3.99 | 0.0034 | 29.7 |
| | Gray Mist Aerosol Paint (smoke gray) | 0.0000012 | 0.00085 | 7.45 | 0.76 | 6.34 | 2.75 | 0.0023 | 20.5 |
| Plantwide Assembly | Vegetable Oil Aerosol Lubricant | 0.000112 | 0.0795 | 696.15 | 0.92 | 7.67 | 1.36 | 0.108 | 946.0 |
| Insulation repair adhesive | Hi-Tack Spray Adhesive | 0.000163 | 0.1163 | 1,019 | 0.70 | 5.80 | 4.12 | 0.479 | 4193.0 |
| Assembly and packaging | Bondmaster Glue 40-0880 | 0.004918 | 3.5016 | 30,674 | 1.06 | 8.84 | 0.013 | 0.044 | 383.6 |
| | Furnace | | | | | | | | |
| Furnace inspection/ marking | Uni-paint Markers | 0.0000013 | 0.00059 | 5.18 | 1.30 | 10.84 | 4.34 | 0.003 | 22.4 |
| Furnace Assembly | RTV Sealant | 0.005422 | 2.4129 | 21,137 | 1.20 | 10.01 | 0.26 | 0.624 | 5462.8 |
| | HE Furnace | | | | | | | | |
| HE furnace assembly | Shin Etsu KE-3417 Caulk | 0.004311 | 0.5820 | 5,099 | 1.05 | 8.76 | 0.009 | 0.0051 | 44.6 |
| | Shin Etsu KE-45B Caulk | 0.024131 | 3.2577 | 28,537 | 1.05 | 8.76 | 0.009 | 0.029 | 249.9 |
| | Fan Coil | | | | | | | | |
| Fan coil Cleaning | 3160 Aluminum Cleaner NSS | 0.012120 | 3.2361 | 28,349 | 1.08 | 9.01 | 0.162 | 0.525 | 4596.1 |
| Totals (lb/yr): | | | 13.283 | 116,358 | | | | 2.45 | 21,426 |
| | | | | | | | Total (ton/yr): | 10.71 | |

VOC and HAP Emissions from Miscellaneous Products Usage by Production Area (Continued)

| Department / Product Name | Hazardous Air Pollutant (HAP) Content | | | | | | | | | | |
|---|---------------------------------------|---------------|---------------|--------|--------------|--------|---------------|--------|---------------|--------|------------|
| | Xylene | | MEK | | Toluene | | Ethylbenzene | | Glycol Ethers | | Diethanola |
| | % | lbs/yr | % | lbs/yr | % | lbs/yr | % | lbs/yr | % | lbs/yr | % |
| Plantwide | | | | | | | | | | | |
| Solvent 142 | | | | | | | | | | | |
| Silver Sage Aerosol Paint (new gray) | 0.89% | 0.580 | 5.89% | 3.841 | 16.37% | 10.68 | | | 2.23% | 1.45 | |
| Gray Mist Aerosol Paint (smoke gray) | 0.77% | 0.363 | 6.44% | 3.040 | 12.04% | 5.68 | 0.65% | 0.307 | 0.77% | 0.36 | |
| Vegetable Oil Aerosol Lubricant | | | | | | | | | | | |
| Hi-Tack Spray Adhesive | | | | | | | | | | | |
| Bondmaster Glue 40- 0880 | | | | | | | | | | | 0.14% |
| Furnace | | | | | | | | | | | |
| Uni-paint Markers | 40.00% | 22.449 | | | | | | | | | |
| RTV Sealant | | | | | 0.50% | 1,058 | | | | | |
| HE Furnace | | | | | | | | | | | |
| Shin Etsu KE-3417 Caulk | | | | | 0.10% | 44.65 | | | | | |
| Shin Etsu KE-45B Caulk | | | | | | | | | | | |
| Fan Coil | | | | | | | | | | | |
| 3160 Aluminum Cleaner NSS | | | | | | | | | 1.80% | 4,596 | |
| Total (lb/yr): | | 23.39 | 6.881 | | 1,119 | | 0.307 | | 4,598 | | |
| Total (ton/yr): | | 0.0117 | 0.0034 | | 0.559 | | 0.0002 | | 2.299 | | |

| Pollutant | ton/yr |
|--------------------|---------------|
| VOC | 0.00 |
| Total HAP | 3.063 |
| Largest Single HAP | 2.299 |

Company: Carrier Corporation
 Address: 7310 West Morris Street, Indianapolis, IN 46206
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Autobrazer Gas Flux/ Braze Alloy Emissions

Braze Alloy (Rings and Rod)

Braze Ring Usage Rate 72 number/slab
 Weight of rings 0.024 ounces/ring
 Max. Slab Production Capacity **267** fan coil slabs/hr

Maximum Braze Ring Usage 28.8 lb/hr Autobrazing
Maximum Filler Rod Usage 7.0 lb/hr Manual Brazing w/ Hand Torches
 35.8 lb/hr

Brazing Emission Factor

AP-42 Emission Factor for submerged arc welding 0.050 lb/1000lb filler metal
 (closest emission factor to brazing)

Gas Flux

Gas Flux Usage Rate 0.12 gallon/hr
 Gas Flux Density 7.21 lb/gallon
 Maximum Hourly Flux Usage 0.87 lb/hr

Gas Flux Emission Factor

Material Balance Emission Factor for Flux combustion: 31.0% by weight
 (mole fraction of trimethylborate (55% of flux) that could be emitted as borate fume)

Total PM/PM10 emissions from Brazing Rings and Gas Flux

| Pollutant | Potential Emissions lb/hr | Potential Emissions lb/day | Potential Emissions ton/yr |
|-----------------------------|---------------------------|----------------------------|----------------------------|
| Brazing Rod/ Ring Emissions | PM/PM ₁₀ 0.002 | 0.043 | 0.01 |
| Borate Gas Flux Emissions | PM/PM ₁₀ 0.268 | 6.431 | 1.17 |
| Total: | 0.270 | 6.474 | 1.18 |

Methodology:

Potential Emissions:

Emissions (lb/hr) =

Emissions (lb/day) =

Emissions (tpy) =

Max Usage Rate (lb/hr) x Emission Factor (lb/1000lb or % by weight)

Emissions (lb/hr) x 24 Hours of Operation (hr/day)

Emissions (lb/hr) x 8760 Hours of Operation (hr/yr) / 2000 lb/ton

Company: Carrier Corporation
 Address: 7310 West Morris Street, Indianapolis, IN 46206
 Permit No.: M097-24135-00015
 Plt ID: 097-00015

Reviewed and Verified by: B. Gorlin

Soil Remediation System

| Perchloroethylene (PCE) Info | |
|------------------------------|-------|
| Molecular weight of VOC | 131.4 |
| Molecular weight of PCE | 165.8 |

Soil Vapor Extraction System

| Unit | Maximum Air Flow Rate (scf/min) | Max VOC Concentration ug/L (mg/M ³) | MaxPCE Concentration ug/L (mg/M ³) | Maximum Potential VOC Emissions | | | | | Maximum Potential HAP Emissions (as PCE) | | | | |
|-------|------------------------------------|--|---|---------------------------------|-------------|------------|-----------|--------------|--|-------------|--------------|-------------|--------------|
| | | | | lb/hr | lb/day | lb/mo | lb/yr | ton/yr | lb/hr | lb/day | lb/mo | lb/yr | ton/yr |
| SVE-1 | 100 | 3.10 | 136.00 | 0.01 | 0.15 | 4.6 | 56 | 0.028 | 0.35 | 8.43 | 256.5 | 3078 | 1.539 |
| | | | | 0.01 | 0.15 | 4.6 | 56 | 0.028 | 0.35 | 8.43 | 256.5 | 3078 | 1.539 |

Air Stripper System

| Unit | Maximum Water Pump Rate (liters/min) | Max influent VOC Concentration (mg/L) | Max influent PCE Concentration (mg/L) | Maximum Potential VOC Emissions | | | | | Maximum Potential HAP Emissions (as PCE) | | | | |
|------|---|--|--|---------------------------------|-------------|------------|----------|-------------|--|-------------|-------------|------------|--------------|
| | | | | lb/hr | lb/day | lb/mo | lb/yr | ton/yr | lb/hr | lb/day | lb/mo | lb/yr | ton/yr |
| AS-1 | 20 | 0.00 | 6.00 | 0.000 | 0.00 | 0.0 | 0 | 0.00 | 0.016 | 0.38 | 11.6 | 139 | 0.070 |
| | | | | 0.000 | 0.00 | 0.0 | 0 | 0.00 | 0.016 | 0.38 | 11.6 | 139 | 0.070 |

| | | |
|------------------------|--------------|--------------|
| Totals, ton/yr: | 0.028 | 1.608 |
|------------------------|--------------|--------------|

Pursuant to 40 CFR 51.100(s)(1), PCE is a HAP and non-photochemically reactive hydrocarbon; it is, therefore, excluded from the definition of a volatile organic compound (VOC) and not counted towards the sourcewide VOC potential emissions.

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Natural Gas fired combustion units

Building 8 Heaters/ Air Make-Up Units

| Description | Number of units | Heat Input MMBtu/hr |
|--|-----------------|---------------------|
| Building 8 Heaters/ Air Make-Up Units | 103 | 25.809 |
| Building 9 Heaters/ Air Make-Up Units | 23 | 6.173 |
| Fire Water Boilers and R&D Associated Humidity Control Boilers | 5 | 5.559 |
| R&D Associated Lab Heating / Heating Reliability | 76 | 11.650 |
| Production line Furnace Test Stations | 445 | 2.299 |
| Detergent Parts Washers | 5 | 3.600 |
| Autobrazers | 3 | 2.600 |

Total Heat Input from all units: 57.690 MMBtu/hr

| | | |
|----------------------------|---------------|---------|
| NG Heat Value: | 1000 | Btu/CF |
| Total Maximum Firing Rate: | 0.0577 | MMCF/hr |

Emissions Factor from AP-42 1.4

| PM/PM10 | 7.6 | lb/MMCF |
|---------|-----|---------|
| SO2 | 0.6 | lb/MMCF |
| NOx | 100 | lb/MMCF |
| VOC | 5.5 | lb/MMCF |
| CO | 84 | lb/MMCF |

| Total Combustion Emissions | lb/hr | max hours/year | tpy |
|----------------------------|-------|----------------|--------------|
| PM/PM10 | 0.44 | 8760 | 1.92 |
| SO2 | 0.03 | 8760 | 0.15 |
| NOx | 5.77 | 8760 | 25.27 |
| VOC | 0.32 | 8760 | 1.39 |
| CO | 4.85 | 8760 | 21.23 |

| HAPs - Organics | | | | | |
|-------------------------------|----------|-----------------|--------------|----------|----------|
| | Benzene | Dichlorobenzene | Formaldehyde | Hexane | Toluene |
| Emission Factor in lb/MMcf | 0.00210 | 0.00120 | 0.07500 | 1.80000 | 0.00340 |
| Potential Emission in tons/yr | 0.000531 | 0.000303 | 0.018951 | 0.454828 | 0.000859 |

| HAPs - Metals | | | | | |
|-------------------------------|----------|----------|----------|-----------|----------|
| | Lead | Cadmium | Chromium | Manganese | Nickel |
| Emission Factor in lb/MMcf | 0.0005 | 0.0011 | 0.0014 | 0.0004 | 0.0021 |
| Potential Emission in tons/yr | 0.000126 | 0.000278 | 0.000354 | 0.000096 | 0.000531 |

Total HAPs, ton/yr 0.477

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 Plt ID: 097-00015

Reviewed and Verified by: B. Gorlin

Emergency Natural Gas IC Engine Generators

(1) Onan Generator Set - 30 KW (45 HP)

(1) Generac Generator Set - 60 KW (90 HP)

Rich Burn Natural Gas IC Engine emission factors

AP-42 Section 3.2, Table 3.2-3 (7/00)

| | | |
|---|-------|------------|
| Total Generator Capacity | 90 | KW |
| Max Power Output of Nat Gas IC Engines: | 135 | hp |
| Brake Specific Fuel Combustion factor: | 7,000 | Btu/hp-hr* |
| Maximum Projected Engine run hours per day: | 24 | hr/day |
| Maximum Projected Engine run hours per year: | 500 | hrs/yr |
| Heating Value of Nat Gas fuel: | 1,000 | Btu/scf |

Total input/output:

| | | | | | |
|-------------------------|------------|------|---------------------|--------|--------------|
| BTU input/ hp-hr Ouput: | Max Hourly | 0.95 | MMBtu/hr fuel input | 135.0 | hp-hr output |
| | Max Daily | 22.7 | MMBtu/hr fuel input | 3,240 | hp-hr output |
| | Max Annual | 473 | MMBtu/hr fuel input | 67,500 | hp-hr output |

| | | |
|-----------------------------------|---------|----------|
| Maximum hourly heat input: | 0.95 | MMBtu/hr |
| Maximum Hourly Natural Gas Usage: | 945.0 | scf/hr |
| Maximum Daily Natural Gas Usage: | 22680.0 | scf/day |
| Maximum Annual Natural Gas Usage: | 472,500 | scf/yr |

| Pollutant | AP-42 Emission Factors | | Maximum Projected Emissions ¹ | | | |
|----------------------------|------------------------|------------------------|--|--------|--------|----------------|
| | | lb/10 ⁶ Btu | lb/hr | lb/day | lb/yr | Ton/yr |
| Criteria Pollutants | | | | | | |
| PM | | 0.019 | 0.018 | 0.44 | 9.2 | 0.0046 |
| PM10 | | 0.010 | 0.009 | 0.22 | 4.5 | 0.0022 |
| SOx | | 5.88E-04 | 5.56E-04 | 0.013 | 0.28 | 1.39E-04 |
| NOx | | 2.27 | 2.15 | 51.48 | 1072.6 | 0.536 |
| VOC (TOC) | | 0.030 | 0.028 | 0.67 | 14.0 | 0.0070 |
| CO | | 3.51 | 3.32 | 79.61 | 1658.5 | 0.829 |
| HAP | | | | | | |
| 1,1,2,2-tetrachloroethane | | 2.53E-05 | 0.00002 | 0.0006 | 0.01 | 0.00001 |
| 1,3-Butadiene | | 6.63E-04 | 0.00063 | 0.0150 | 0.31 | 0.00016 |
| Acetaldehyde | | 2.79E-03 | 0.00264 | 0.0633 | 1.32 | 0.00066 |
| Acrolein | | 2.63E-03 | 0.00249 | 0.0596 | 1.24 | 0.00062 |
| Benzene | | 1.58E-03 | 0.00149 | 0.0358 | 0.75 | 0.00037 |
| Formaldehyde | | 2.05E-02 | 0.01937 | 0.4649 | 9.69 | 0.00484 |
| PAH | | 1.41E-04 | 0.00013 | 0.0032 | 0.07 | 0.00003 |
| Toluene | | 5.58E-04 | 0.00053 | 0.0127 | 0.26 | 0.00013 |
| Xylenes | | 1.95E-04 | 0.00018 | 0.0044 | 0.09 | 0.00005 |
| Propylene | | 2.58E-03 | 0.00244 | 0.0585 | 1.22 | 0.00061 |
| Methylene Chloride | | 4.12E-05 | 0.00004 | 0.0009 | 0.02 | 0.00001 |
| Total HAP: | | | | | | 0.00749 |

¹ Projected emissions based on maximum projected run time of 500 hours per year

This unit only runs in the event of a power outage or in order to perform preventative maintenance/ testing

* Conversion factor per AP-42 table 3.3-1 footnote

Emergency Diesel Engine Generator

Caterpillar 3306 Generator Set

Diesel IC Engine combustion factors

AP-42 Section 3.3 (10/96)

| | | |
|---|---------|--------------------|
| Generator Capacity | 250 | KW |
| Max Power Output of Diesel Engine: | 377 | hp |
| Brake Specific Fuel Combustion factor: | 7,000 | Btu/hp-hr* |
| Average Duration of Engine Test: | 60 | minutes per engine |
| Maximum Engine tests per hr: | 1 | engines/hr |
| Maximum Projected Engine run hours per day: | 24 | hr/day |
| Maximum Projected Engine run hours per year: | 500 | hrs/yr |
| Heating Value of Diesel fuel: | 137,000 | Btu/gallon |

Total input/output:

| | | | | | |
|-------------------------|------------|------|---------------------|---------|--------------|
| BTU input/ hp-hr Ouput: | Max Hourly | 0.05 | MMBtu/hr fuel input | 377.0 | hp-hr output |
| | Max Daily | 1.2 | MMBtu/hr fuel input | 9,048 | hp-hr output |
| | Max Annual | 25 | MMBtu/hr fuel input | 188,500 | hp-hr output |

| | | |
|-----------------------------------|--------|-------------|
| Maximum hourly heat input: | 2.64 | MMBtu/hr |
| Maximum Hourly Diesel Fuel Usage: | 101.8 | gallons/hr |
| Maximum Daily Diesel Fuel Usage: | 2443.0 | Gallons/day |
| Maximum Annual Diesel Fuel Usage: | 50,895 | Gallons/yr |

| Pollutant | AP-42 Emission Factors | | Maximum Projected Emissions ¹ | | | |
|----------------------------|------------------------|------------------------|--|--------|-------|----------------|
| | lb/hp-hr | lb/10 ⁶ Btu | lb/hr | lb/day | lb/yr | Ton/yr |
| Criteria Pollutants | | | | | | |
| PM | 0.0022 | 0.31 | 0.00 | 0.29 | 7.0 | 0.004 |
| PM10 | 0.0022 | 0.31 | 0.00 | 0.29 | 7.0 | 0.004 |
| SOx | 0.0021 | 0.29 | 0.00 | 0.27 | 6.6 | 0.003 |
| NOx | 0.0310 | 4.41 | 0.00 | 4.17 | 100.0 | 0.050 |
| VOC (TOC) | 0.0025 | 0.36 | 0.00 | 0.34 | 8.2 | 0.004 |
| CO | 0.0067 | 0.95 | 0.00 | 0.90 | 21.5 | 0.011 |
| HAPs | | | | | | |
| Acetaldehyde | | 7.67E-04 | 0.00000 | 0.0007 | 0.02 | 0.00001 |
| Acrolein | < | 9.25E-05 | 0.00000 | 0.0001 | 0.00 | 0.00000 |
| Benzene | | 9.33E-04 | 0.00000 | 0.0009 | 0.02 | 0.00001 |
| Formaldehyde | | 1.18E-03 | 0.00000 | 0.0011 | 0.03 | 0.00001 |
| PAH | | 1.68E-04 | 0.00000 | 0.0002 | 0.00 | 0.00000 |
| Toluene | | 4.09E-04 | 0.00000 | 0.0004 | 0.01 | 0.00000 |
| Xylenes | | 2.85E-04 | 0.00000 | 0.0003 | 0.01 | 0.00000 |
| Propylene | | 2.58E-03 | 0.00000 | 0.0024 | 0.06 | 0.00003 |
| 1-3-butadiene | < | 3.91E-05 | 0.00000 | 0.0000 | 0.00 | 0.00000 |
| Total HAP: | | | | | | 0.00007 |

¹ Projected emissions based on maximum projected run time of 500 hours per year

This unit only runs in the event of a power outage or in order to perform preventative maintenance/testing

* Conversion factor per AP-42 table 3.3-1 footnote

| Company: Carrier Corporation | | | | | | | | | | | |
|--|-----------------------------|---------------------|-----------------------|-----------------------|------------------------|----------------------------|----------------------|-------------|--|--------------------|--------------------|
| Address: 7310 West Morris Street, Indianapolis, IN 46206 | | | | | | | | | | | |
| Permit No.: M097-24135-00015 | | | | | | | | | | | |
| Pit ID: 097-00015 | | | | | | | | | | | |
| Reviewed and Verified by: B. Gorlin | | | | | | | | | | | |
| Potential Emissions from R&D Paint Booth | | | | | | | | | | | |
| Maximum Potential Throughput Capacity (units) 6 per day 2,190 per year | | | | | | | | | | | |
| Manufacturer | Product | Density | Maximum Gallons | Potential Daily Usage | Potential Annual Usage | Worst case VOC Content | VOC | VOC | Worst Case HAP (Unless Specified, assume Glycol Ether) | | |
| | | lb/gal | per unit | gallons | gallons | lb/gal | lb/day | ton/year | % | lbs/yr | Ton/yr |
| Paint and Reducer VOC/HAP, as applied | | | | | | | | | | | |
| Various | Air Dry Enamel | 9.00 | 0.25 | 1.50 | 547.50 | 5.00 | 7.50 | 1.37 | 25.0% | 1,232 | 0.616 |
| Various | Mineral Spirits Reducer | 6.34 | 0.13 | 0.78 | 284.70 | 7.51 | 5.86 | 1.07 | 2.0% | 36 | 0.018 |
| Various | Xylene Clean-up solvent | 7.17 | 0.04 | 0.24 | 87.60 | 7.51 | 1.80 | 0.33 | 100% | 628 | 0.314 |
| Totals: | | 0.42 | 2.52 | 919.80 | | | 15.16 | 2.77 | | 1,896 | 0.948 |
| Spray Paint Booth PM | | | | | | | | | | | |
| Product | Density | Worst Case % Solids | Estimated Gallons | Potential Daily Usage | Potential Annual Usage | Solids transfer efficiency | Uncontrolled PM/PM10 | | PM Control | Controlled PM/PM10 | Controlled PM/PM10 |
| | lb/gal | by Weight | per unit | gallons | gallons | % | lb/day | ton/yr | y | lb/day | ton/year |
| Air Dry Enamel | 9.00 | 45% | 0.2500 | 1.50 | 547.50 | 50% | 3.04 | 0.554 | 95% | 0.15 | 0.03 |
| Aqueous Detergent Parts Washer Systems | | | | | | | | | | | |
| EU ID# | Cleaner Throughput Capacity | | Glycol Ether weight % | VOC/HAP PTE | | | | | | | |
| | lb/yr | lb/day (250 day/yr) | | lb/day | ton/yr | | | | | | |
| W-1 | 37,000 | 148.00 | 1% | 1.48 | 0.27 | | | | | | |
| W-2 | 37,000 | 148.00 | 1% | 1.48 | 0.27 | | | | | | |
| W-3 | 37,000 | 148.00 | 1% | 1.48 | 0.27 | | | | | | |
| W-4 | 37,000 | 148.00 | 1% | 1.48 | 0.27 | | | | | | |
| W-5 | 37,000 | 148.00 | 1% | 1.48 | 0.27 | | | | | | |
| Total VOC (Glycol Ether) PTE: | | | | 7.4 | 1.35 | | | | | | |

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Permit No.: M097-24135-00015
Plt ID: 097-00015
Reviewed and Verified by: B. Gorlin

Total Sourcewide Potential Emissions, ton/yr:

| | |
|---------------------------------------|-------|
| PM/PM10 | 4.210 |
| SO2 | 0.152 |
| NOx | 25.80 |
| VOC | 79.37 |
| CO | 22.05 |
| Highest Individual HAP (Glycol Ether) | 2.299 |
| Combined HAPs, total | 4.391 |