



TO: Interested Parties / Applicant

RE: Carrier Corporation / 097-21725-00015  
7310 West Morris Street  
Indianapolis, Indiana 46206

FROM: Felicia A. Robinson *FR*  
Administrator  
City of Indianapolis  
Office of Environmental Services

### Notice of Decision – Approval

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

If you wish to challenge this decision, IC 4-21.5-3-7 requires that you file a petition for administrative review. This petition may include a request for stay of effectiveness and must be submitted to the Office of Environmental Adjudication, 100 North Senate Avenue, Government Center North, Room 1049, Indianapolis, IN 46204, **within eighteen (18) calendar days from the mailing of this notice**. The filing of a petition for administrative review is complete on the earliest of the following dates that apply to the filing:

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

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

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

If you have technical questions regarding the enclosed documents, please contact the 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

indiana.org/dpw

November 3, 2006

Ms. Sandra Merritt  
Carrier Corporation  
7310 W. Morris Street  
Indianapolis, Indiana 46206



Certified Mail 7000 0600 0023 5186 6147

**Re: MSOP Notice-only Change 097-21725-00015**  
**MSOP No.: 097-15061-00015**

Dear Ms. Merritt:

Carrier Corporation was issued an MSOP 097-15061-00015 on April 1, 2002 for an aluminum air conditioning and furnace coil fin stock manufacturing facility.

On September 1, 2005, a letter was received by the Office of Environmental Services (OES) requesting the following Notice-Only Changes to the MSOP 097-15061-00015.

- (a) Addition of One (1) Fan Coil Fin Press Emission Unit ID P-7 (planned to be installed in 2006), with 36.75 inches wide Coil Stock and with maximum capacity of 500 pounds of aluminum per hour.
- (b) Change of the metal stamping fluid utilized in all presses from Arrow KT-70-2-FR to 8997 FR Evaporative Lubricant (mineral spirit) containing 42.76% VOC by weight (instead of 70% in previously used Arrow KT-70-2-FR stamping fluid).
- (c) A correction of the Fin Presses Emission Units P-5 and P-6 capacity from 556 lb/hr of aluminum to 500 and 300 lb/hr of aluminum, respectively, and maximum potential stamping fluid usage in Fin Press EU P-6 from 0.8 to 0.5 lb/hr.
- (d) Addition of the Vapor Phase Activated Carbon unit to the existing Soil Remediation System for removal of perchloroethylene (PCE) from groundwater, Emission Unit ID SR-1. The Vapor Phase Activated Carbon Unit is intended for additional PCE removal from airflow generated through the soil vapor extraction/air sparging portion of the system. No emission increase will result from this change. The Vapor Phase Activated Carbon unit was installed in 2006.
- (e) Addition of one (1) new Autobrazer, Emission Unit ID AB-3, burning natural gas, with maximum heat input capacity of 1.2 MMBtu/hr. Emissions are exhausted to the atmosphere through the Stack PE-51. A combined total production capacity of the two (2) existing and one (1) new Autobraser is 267 fan coil slabs per hour using 28.8 lb/hour of braze rings and 0.87 lb/hr of gas flux.
- (f) Addition of four (4) new forced draft Cooling Towers, Emission Units CT-1, CT-2, CT-3, and CT-4, 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.
- (g) Addition of one (1) Paint Booth, used for Research and Development, with maximum surface

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coating capacity of a 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.

The MSOP was revised as described below and in the attached Technical Support Document.

The following changes were made to the MSOP 097-15061-00015.

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

The Permittee owns and operates stationary source, an aluminum air conditioning and furnace coil fin stock manufacturing facility.

Authorized Individual: Jami Norton-Gay Plant Manager

County Source Location Status: Nonattainment for PM2.5 and ozone under 8-hour ozone standard

Source Status: Attainment for all other criteria pollutants  
Minor Source Operating Permit  
Minor Source, under PSD or Emission Offset Rules;  
Minor Source, Section 112 of the Clean Air Act  
Not one of the 28 Source Categories

A.2 Emissions units and Pollution Control Equipment Summary

This stationary source is approved to construct and operate consists of the following emissions units and pollution control devices:

~~(a) Four (4) existing Burr Oak fin presses Emission Unit IDs P-1, P-2, P-3, and P-4, with maximum capacity throughput of 500 pounds of feedstock rolled aluminum per hour each, and two (2) new Burr Oak fin presses Emission Unit ID's P-5 and P-6, with maximum capacity throughput 556 pounds of feedstock rolled aluminum per hour each, utilizing Arrow KT-70-2-FR as metal stamping fluid (petroleum solvent) containing 70% VOC by weight. Emissions are exhausted to the atmosphere through the Stack GV-1.~~

(a) Fin Presses:

(1) Five (5) existing Fan Coil Fin Presses Emission Unit ID's P-1 (installed in 1991), P-2 (installed in 1991), P-3 (installed in 1998), P-4 (installed in 1991), P-5 (installed in 2003), and one (1) new Fan Coil Fin Press Emission Unit ID's P-7 (installed in 2006), each press with 36.75 inches wide Coil Stock with maximum capacity of 500 pounds of aluminum per hour, utilizing 8997 FR Evaporative Lubricant as metal stamping fluid (mineral spirit) containing 42.76% VOC by weight. Emissions are exhausted to the atmosphere through the Stack GV-1.

(2) One existing ICP 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, utilizing 8997 FR Evaporative Lubricant as metal stamping fluid (mineral spirit) containing 42.76% VOC by weight. Emissions are exhausted to the atmosphere through the Stack GV-1.

(b) One (1) existing 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.

- .....
- (d) **Two (2) Three (3) existing Autobrazers, Emission Units ID's AB-1, and AB-2, and AB-3, burning natural gas, with maximum heat input capacity of 0.5, 0.9, and 1.2 MMBtu/hr respectively. total maximum capacity of 11.8 million cubic feet of Natural Gas per year. Emission are exhausted to the atmosphere through the Stacks PE-39, and 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 CT-1, CT-2, CT-3, and CT-4, 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, 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.**
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#### SECTION D.1

#### EMISSIONS UNIT OPERATION CONDITIONS

##### Emissions Unit Description:

- (a) ~~Four (4) existing Burr Oak fin presses Emission Unit IDs P-1, P-2, P-3, and P-4, with maximum capacity throughput of 500 pounds of feedstock rolled aluminum per hour each, and two (2) new Burr Oak fin presses Emission Unit ID's P-5 and P-6, with maximum capacity throughput 556 pounds of feedstock rolled aluminum per hour each, utilizing Arrow KT-70-2-FR as metal stamping fluid (petroleum solvent) containing 70% VOC by weight. Emissions are exhausted to the atmosphere through the Stack GV-1.~~
- (a) **Fin Presses:**
  - (1) **Five (5) existing Fan Coil Fin Presses Emission Unit ID's P-1 (installed in 1991), P-2 (installed in 1991), P-3 (installed in 1998), P-4 (installed in 1991), P-5 (installed in 2003), and one (1) new Fan Coil Fin Press Emission Unit ID's P-7 (installed in 2006), each press with 36.75 inches wide Coil Stock and with maximum capacity of 500 pounds of aluminum per hour, utilizing 8997 FR Evaporative Lubricant as metal stamping fluid (mineral spirit) containing 42.76 % VOC by weight. Emissions are exhausted to the atmosphere through the Stack GV-1.**
  - (2) **One existing ICP 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, utilizing 8997 FR Evaporative Lubricant as metal stamping fluid (mineral spirit) containing 42.76% VOC by weight. Emissions are exhausted to the atmosphere through the Stack GV-1.**

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

Potential VOC emissions from each fin press Emission Unit IDs P-1 - ~~P-6~~ P-7 are less than 25 tons per year; therefore, the best available control technology (BACT) requirement in 326 IAC 8-1-6 (New Facilities: General Reduction Requirements) does not apply.

## Record Keeping and Reporting Requirements

### D.1.2 Record Keeping Requirements

- (a) Records of the amount and VOC content of the metal stamping fluid ~~Arrow KT-70-2-FR 8997 FR~~ **Evaporative Lubricant** shall include purchase orders, invoices, and material safety data sheets (MSDS) necessary to verify the type, amount used and the annual emissions.
- (b) All records shall be maintained in accordance with Section C.16 - General Record Keeping Requirements, of this permit.

## SECTION D.2

## EMISSIONS UNIT OPERATION CONDITIONS

### Emissions Unit Description:

- (b) One (1) ~~existing~~ 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.)

IDEM, OAQ, mailing address was corrected throughout the MSOP:

.....  
100 North Senate Avenue  
Indianapolis, Indiana 46204-2251

IDEM and OES have decided to include the following updates to further address and clarify the permit terms and the terms of the conditions.

### B.1 Permit No Defense [IC 13]

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

Conditions B.4 (Revocation of Permits) and B.6 (Minor Source Operating Permit) were deleted, the former condition B.5 (Modification to Permit) was renumbered, new Condition B.5 (Annual Fee Payment) was added:

~~B.4 Revocation of Permits [326 IAC 2-1.1-9(5)]~~

~~Pursuant to 326 IAC 2-1.1-9(5)(Revocation of Permits), the Commissioner may revoke this permit if construction is not commenced within eighteen (18) months after receipt of this approval or if construction is suspended for a continuous period of one (1) year or more.~~

**B.54 Modification to Permit [326 IAC 2]**

Notwithstanding the Section B condition entitled "Minor Source Operating Permit", all requirements and conditions of this construction permit shall remain in effect unless modified in a manner consistent with procedures established for modifications of construction permits pursuant to 326 IAC 2 (Permit Review Rules).

~~B.6 Minor Source Operating Permit [326 IAC 2-6.1]~~

~~This document shall also become a minor source operating permit pursuant to 326 IAC 2-6.1 when, prior to start of operation, the following requirements are met:~~

- ~~(a) The attached Affidavit of Construction shall be submitted to the Indianapolis Office of Environmental Services (OES).
  - ~~(1) If the Affidavit of Construction verifies that the facilities covered in this Construction Permit were constructed as proposed in the application, then the facilities may begin operating on the date the Affidavit of Construction is postmarked or hand delivered to OES.~~
  - ~~(2) If the Affidavit of Construction does not verify that the facilities covered in this Construction Permit were constructed as proposed in the application, then the Permittee shall receive an Operation Permit Validation Letter from the OES Administrator prior to beginning operation of the facilities.~~~~
- ~~(b) If construction is completed in phases; i.e., the entire construction is not done continuously, a separate affidavit must be submitted for each phase of construction. Any permit conditions associated with operation start up dates such as stack testing for New Source Performance Standards (NSPS) shall be applicable to each individual phase.~~
- ~~(c) Upon receipt of the Operation Permit Validation Letter from the OES Administrator, the Permittee shall attach it to this document.~~
- ~~(d) The operation permit will be subject to annual operating permit fees pursuant to 326 IAC 2-1.1-7(Fees).~~

**B.5 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 number: 317-327-2234 (ask for OES Air Compliance), to determine the appropriate permit fee.**

**B.76 Permit Term and Renewal [326 IAC 2-6.1-7(a)] [326 IAC 2-1.1-9.5]**

This permit is issued for a fixed term of five (5) years from the original date, as determined in accordance with IC 4-21.5-3-5(f) and IC 13-15-5-3. Subsequent revisions of this permit do not affect the expiration date.

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-----  
Affidavit of Construction (included in the initial MSOP for construction of the Fin Presses EU P-5 and P-6) was deleted. Respective changes were made to the Table of Contents.  
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All other conditions of the permit shall remain unchanged and in effect. Please find attached a copy of the revised permit.

This decision is subject to the Indiana Administrative Orders and Procedures Act - IC 4-21.5-3-5. If you have any questions on this matter, please contact Boris Gorlin at (317) 327-2280 or [bgorlin@sbcglobal.net](mailto:bgorlin@sbcglobal.net).

Sincerely,



Felicia A. Robinson  
Administrator  
Indianapolis Office of Environmental Services

cc: files  
Air Compliance  
IDEM, OAQ

BG



# NEW SOURCE CONSTRUCTION AND MINOR SOURCE OPERATING PERMIT

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

**Carrier Corporation  
7310 West Morris Street  
Indianapolis, Indiana 46206**

(herein known as the Permittee) is hereby authorized to construct and operate subject to the conditions contained herein, the emission units 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 2-5.1, 326 IAC 2-6.1 and 40 CFR 52.780, with conditions listed on the attached pages.

Operation Permit No.: MSOP 097-15061-00015	
Issued by: Jodi Perras Kusmer Acting Administrator Office of Environmental Services	Issuance Date: April 1, 2002  Expiration Date: March 30, 2007

First Notice Only Change 097-16837-00015, issued: December 6, 2002  
 Second Notice Only Change 097-19004-00015, issued: May 17, 2005

Third Notice Only Change 097-21725-00015	Conditions affected: A..1, A.2, B.1, B.4, B.5, B.6, Sections D.1 and D.2 (Emission Units Description), D.1.1, D.1.2
Issued by:  Felicia A. Robinson, Administrator Office of Environmental Services	Issuance Date: November 3, 2006  Expiration Date: March 30, 2007



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

2700 Belmont Avenue  
Indianapolis, IN 46221

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Fax 327-2274  
TDD 327-5186  
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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 Indianapolis Office of Environmental Services (OES). The information describing the source contained in conditions A.1 through A.3 is descriptive information and does not constitute enforceable conditions. However, the Permittee should be aware that a physical change or a change in the method of operation that may render this descriptive information obsolete or inaccurate may trigger requirements for the Permittee to obtain additional permits or seek modification of this permit pursuant to 326 IAC 2, or change other applicable requirements presented in the permit application.

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

The Permittee owns and operates stationary source, an aluminum air conditioning and furnace coil fin stock manufacturing facility.

Authorized Individual:	Plant Manager
Source Address:	7310 W. Morris Street, Indianapolis, Indiana 46206
Mailing Address:	7310 W. Morris Street, Indianapolis, Indiana 46206
Phone Number:	(317)-481-5746
SIC Code:	3585
County:	Marion
Source Location Status:	Nonattainment for PM2.5 and 8-hour ozone standard; Attainment for all other criteria pollutants
Source Status:	Minor Source Operating Permit Minor Source, under PSD or Emission Offset Rules Minor Source, Section 112 of the Clean Air Act Not one of the 28 Source Categories

### A.2 Emissions units and Pollution Control Equipment Summary

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

- (a) **Fin Presses:**
- (1) Five (5) existing Fan Coil Fin Presses Emission Unit ID's P-1 (installed in 1991), P-2 (installed in 1991), P-3 (installed in 1998), P-4 (installed in 1991), P-5 (installed in 2003), and one (1) new Fan Coil Fin Press Emission Unit ID's P-7 (installed in 2006), each press with 36.75 inches wide Coil Stock with maximum capacity of 500 pounds of aluminum per hour, utilizing 8997 FR Evaporative Lubricant as metal stamping fluid (mineral spirit) containing 42.76% VOC by weight. Emissions are exhausted to the atmosphere through the Stack GV-1.
  - (2) One existing ICP 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, utilizing 8997 FR Evaporative Lubricant as metal stamping fluid (mineral spirit) containing 42.76% VOC by weight. Emissions are exhausted to the atmosphere through the 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) existing Aqueous Detergent Parts Washer Systems, Emission Unit ID's 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 usage capacity of 37,000 pounds per year each. Parts Washer Systems Emission Unit ID's W-2 and W-3 were installed in 1994, W-1 - in 1993, W-5 - in 1999. Emission are exhausted to the atmosphere through the Stacks PE-35, PE-15, PE-37, PE-45, and PE-41;

- (d) Three (3) Autobrazers, Emission Units ID's 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. Emission are exhausted to the atmosphere through the 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 CT-1, CT-2, CT-3, and CT-4, 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, 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.

**SECTION B GENERAL CONSTRUCTION CONDITIONS**

THIS SECTION OF THE PERMIT IS BEING ISSUED UNDER THE PROVISIONS OF 326 IAC 2-1.1 AND 40 CFR 52.780, WITH CONDITIONS LISTED BELOW WHICH APPLY TO NEW FIN PRESSES EMISSION UNIT ID's P-5, P-6, AND P-7.

**B.1 Permit No Defense [IC 13]**

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

**B.2 Definitions**

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, any applicable definitions found in IC 13-11, 326 IAC 1-2, and 326 IAC 2-1.1-1 shall prevail.

**B.3 Effective Date of the Permit [IC13-15-5-3]**

Pursuant to IC 13-15-5-3, this permit becomes effective upon its issuance.

**B.4 Modification to Permit [326 IAC 2]**

Notwithstanding the Section B condition entitled "Minor Source Operating Permit", all requirements and conditions of this construction permit shall remain in effect unless modified in a manner consistent with procedures established for modifications of construction permits pursuant to 326 IAC 2 (Permit Review Rules).

**B.5 Annual Fee Payment [326 IAC 52-1.1-7]**

- (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 number: 317-327-2234 (ask for OES Air Compliance), to determine the appropriate permit fee.

**B.6 Permit Term and Renewal [326 IAC 2-6.1-7(a)] [326 IAC 2-1.1-9.5]**

This permit is issued for a fixed term of five (5) years from the original date, as determined in accordance with IC 4-21.5-3-5(f) and IC 13-15-5-3. Subsequent revisions of this permit do not affect the expiration date.

Pursuant to 326 IAC 2-6.1-7, the Permittee shall apply for an operation permit renewal at least ninety (90) days prior to the expiration date. If a timely and sufficient permit application for a renewal has been made, this permit shall not expire and all terms and conditions shall continue in effect until the renewal permit has been issued or denied.

## SECTION C SOURCE OPERATION CONDITIONS

Entire Source
---------------

### C.1 PSD Minor Source Status [326 IAC 2-2] [40 CFR 52.21]

- (a) The total source potential to emit of each criteria air pollutant is less than 250 tons per year. Therefore the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration) and 40 CFR 52.21 will not apply.
- (b) Any change or modification which may increase potential to emit to 250 tons per year from this source, shall cause this source to be considered a major source under PSD, 326 IAC 2-2 and 40 CFR 52.21, and shall require approval from IDEM, OAQ and OES prior to making the change.
- (c) Any change or modification which may increase potential to emit to 10 tons per year of any single hazardous air pollutant, twenty-five tons per year of any combination of hazardous air pollutants, or 100 tons per year of any other regulated pollutant from this source, shall cause this source to be considered a major source under Part 70 Permit Program, 326 IAC 2-7, and shall require approval from IDEM, OAQ and OES prior to making the change.

### C.2 Preventive Maintenance Plan [326 IAC 1-6-3]

- (a) If required by specific condition(s) in Section D of this permit, the Permittee shall prepare and maintain Preventive Maintenance Plans (PMP) after issuance of this permit, including the following information on each emissions unit:
  - (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;
  - (3) Identification and quantification of the replacement parts that will be maintained in inventory for quick replacement.
- (b) The Permittee shall implement the Preventive Maintenance Plans as necessary to ensure that failure to implement the Preventive Maintenance Plan does not cause or contribute to a violation of any limitation on emissions or potential to emit.
- (c) PMP's shall be submitted to IDEM, OAQ, and OES upon request and shall be subject to review and approval by IDEM, OAQ, and OES. IDEM, OAQ, and OES may require the Permittee to revise its Preventive Maintenance Plan whenever lack of proper maintenance causes or contributes to any violation.

### C.3 Permit Revision [326 IAC 2-5.1-3(e)(3)] [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 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  
Office of Air Quality,  
Permits Branch,  
100 North Senate Avenue  
Indianapolis, Indiana 46204-2251

and

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

Any such application should be certified by the "authorized individual" as defined by 326 IAC 2-1.1-1.

- (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)]

**C.4 Inspection and Entry [326 IAC 2-5.1-3(e)(4)(B)] [326 IAC 2-6.1-5(a)(4)]**

Upon presentation of proper identification cards, credentials, and other documents as may be required by law, the Permittee shall allow IDEM OAQ, OES and U.S. EPA, 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) Have access to and copy, at reasonable times, any records that must be kept under this title or the conditions of this permit or any operating permit revisions;
- (c) Inspect, at reasonable times, any processes, emissions units (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit or any operating permit revisions;
- (d) Sample or monitor, at reasonable times, substances or parameters for the purpose of assuring compliance with this permit or applicable requirements; and
- (e) Utilize any photographic, recording, testing, monitoring, or other equipment for the purpose of assuring compliance with this permit or applicable requirements. [326 IAC 2-7-6(6)]

**C.5 Transfer of Ownership or Operation [326 IAC 2-6.1-6(d)(3)]**

Pursuant to [326 IAC 2-6.1-6(d)(3)] :

- (a) In the event that ownership of this source is changed, the Permittee shall notify IDEM, OAQ, Permits Branch and OES, within thirty (30) days of the change.
- (b) The written notification shall be sufficient to transfer the permit to the new owner by an notice-only change pursuant to 326 IAC 2-6.1-6(d)(3).
- (c) IDEM, OAQ, and OES shall issue a revised permit.

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

**C.6 Permit Revocation [326 IAC 2-1-9]**

Pursuant to 326 IAC 2-1-9(a)(Revocation of Permits), this permit to construct and 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.7 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.8 Fugitive Dust Emissions [326 IAC 6-4]**

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

**Testing Requirements**

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

- (a) If required by a specific condition in Section D of this approval, compliance testing on new emissions units shall be conducted within 60 days after achieving maximum production rate, but no later than 180 days after initial start-up. 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 and OES.

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  
Indianapolis, Indiana 46204-2251

and

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

no later than thirty-five (35) days prior to the intended test date. The Permittee shall submit a notice of the actual test date to the above address so that it is received at least two weeks prior to the test date.

- (b) All test reports must be received by IDEM, OAQ and OES within forty-five (45) days after the completion of the testing. An extension may be granted by the IDEM, OAQ, and OES, if the source submits to IDEM, OAQ, and OES a reasonable written explanation within five (5) days prior to the end of the initial forty-five (45) day period.

The documentation submitted by the Permittee does not require certification by the "authorized individual" as defined by 326 IAC 2-1.1-1.

### Compliance Monitoring Requirements

#### C.10 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.

#### C.11 Monitoring Methods [326 IAC 3]

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, or other approved methods as specified in this permit.

#### C.12 Actions Related to Noncompliance Demonstrated by a Stack Test [326 IAC 2-6.1-5]

- (a) When the results of a stack test performed in conformance with Section C - Performance Testing, of this permit, if required by a specific condition in section D of this approval, exceed the level specified in any condition of this permit, the Permittee shall take appropriate corrective actions. The Permittee shall submit a description of these corrective actions to IDEM, OAQ, and OES within thirty (30) days of receipt of the test results. The Permittee shall take appropriate action to minimize emissions from the affected emissions unit while the corrective actions are being implemented. IDEM, OAQ and OES shall notify the Permittee within thirty (30) days, if the corrective actions taken are deficient. The Permittee shall submit a description of additional corrective actions taken to IDEM, OAQ within thirty (30) days of receipt of the notice of deficiency. IDEM, OAQ and OES reserves the authority to use enforcement activities to resolve noncompliant stack tests.
- (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 and OES that retesting in one-hundred and twenty (120) days is not practicable, IDEM, OAQ may extend the retesting deadline. Failure of the second test to demonstrate compliance with the appropriate permit conditions may be grounds for immediate revocation of the permit to operate the affected emissions unit.

The documents submitted pursuant to this condition do not require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1.

## Record Keeping and Reporting Requirements

### 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), and Indianapolis OES 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 and OES, 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 Monitoring Data Availability [326 IAC 2-6.1-2] [IC 13-14-1-13]

- (a) With the exception of performance tests conducted in accordance with Section C-Performance Testing, all observations, sampling, maintenance procedures, and record keeping, required as a condition of this permit shall be performed at all times the equipment is operating at normal representative conditions.
- (b) As an alternative to the observations, sampling, maintenance procedures, and record keeping of subsection (a) above, when the equipment listed in Section D of this permit is not operating, the Permittee shall either record the fact that the equipment is shut down or perform the observations, sampling, maintenance procedures, and record keeping that would otherwise be required by this permit.
- (c) If the equipment is operating but abnormal conditions prevail, additional observations and sampling should be taken with a record made of the nature of the abnormality.
- (d) If for reasons beyond its control, the operator fails to make required observations, sampling, maintenance procedures, or record keeping, reasons for this must be recorded.
- (e) At its discretion, IDEM and OES may excuse such failure providing adequate justification is documented and such failures do not exceed five percent (5%) of the operating time in any quarter.
- (f) Temporary, unscheduled unavailability of staff qualified to perform the required observations, sampling, maintenance procedures, or record keeping shall be considered a valid reason for failure to perform the requirements stated in (a) above.

**C.15 General Record Keeping Requirements [326 IAC 2-6.1-2]**

- (a) Records of all required monitoring data and support information 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 kept at the source location for a minimum of three (3) years and available upon the request of an IDEM, OAQ, and OES representative. 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 make a written request for records to the Permittee, the Permittee shall furnish the records to the Commissioner or OES within a reasonable time.
- (b) Records of required monitoring information shall include, where applicable:
- (1) The date, place, and time of sampling or measurements;
  - (2) The dates analyses were performed;
  - (3) The company or entity performing the analyses;
  - (4) The analytic techniques or methods used;
  - (5) The results of such analyses; and
  - (6) The operating conditions existing at the time of sampling or measurement.
- (c) Support information shall include, where applicable:
- (1) Copies of all reports required by this permit;
  - (2) All original strip chart recordings for continuous monitoring instrumentation;
  - (3) All calibration and maintenance records;
  - (4) Records of preventive maintenance shall be sufficient to demonstrate that failure to implement the Preventive Maintenance Plan did not cause or contribute to a violation of any limitation on emissions or potential to emit. To be relied upon subsequent to any such violation, these records may include, but are not limited to: work orders, parts inventories, and operator's standard operating procedures. Records of response steps taken shall indicate whether the response steps were performed in accordance with the Compliance Response Plan required by Section C - Compliance Monitoring Plan - Failure to take Response Steps, of this permit, and whether a deviation from a permit condition was reported. All records shall briefly describe what maintenance and response steps were taken and indicate who performed the tasks.
- (d) All record keeping requirements not already legally required shall be implemented when operation begins.

**C.16 Annual Notification [326 IAC 2-6.1-5(a)(5)]**

- (a) Annual notification shall be submitted to the Office of Air Quality and OES stating whether or not the source is in operation and in compliance with the terms and conditions contained in this permit.
- (b) Noncompliance with any condition must be specifically identified. If there are any permit conditions or requirements for which the source is not in compliance at any time during the year, the Permittee must provide a narrative description of how the source did or will achieve

compliance and the date compliance was, or will be, achieved. The notification must be signed by an authorized individual.

- (c) The annual notification shall cover the time period from January 1 to December 31 of the previous year, and shall be submitted in the format attached no later than March 1 of each year to:

Indiana Department of Environmental Management  
Office of Air Quality, Compliance Data Section  
100 North Senate Avenue  
Indianapolis, IN 46204-2251

and

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

- (d) 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.

## SECTION D.1

## EMISSIONS UNIT OPERATION CONDITIONS

### Emissions Unit Description:

(a) Fin Presses:

- (1) Five (5) existing Fan Coil Fin Presses Emission Unit ID's P-1 (installed in 1991), P-2 (installed in 1991), P-3 (installed in 1998), P-4 (installed in 1991), P-5 (installed in 2003), and one (1) new Fan Coil Fin Press Emission Unit ID's P-7 (planned to be installed in 2006), each press with 36.75 inches wide Coil Stock and with maximum capacity of 500 pounds of aluminum per hour, utilizing 8997 FR Evaporative Lubricant as metal stamping fluid (mineral spirit) containing 42.76% VOC by weight. Emissions are exhausted to the atmosphere through the Stack GV-1.
- (2) One existing ICP 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, utilizing 8997 FR Evaporative Lubricant as metal stamping fluid (mineral spirit) containing 42.76% VOC by weight. Emissions are exhausted to the atmosphere through the Stack GV-1.

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

Potential VOC emissions from each fin press Emission Unit IDs P-1 - P-7 are less than 25 tons per year, therefore, the best available control technology (BACT) requirement in 326 IAC 8-1-6 (New Facilities: General Reduction Requirements) does not apply.

### Record Keeping and Reporting Requirements

#### D.1.2 Record Keeping Requirements

- (a) Records of the amount and VOC content of the metal stamping fluid 8997 FR Evaporative Lubricant shall include purchase orders, invoices, and material safety data sheets (MSDS) necessary to verify the type, amount used and the annual emissions.
- (b) All records shall be maintained in accordance with Section C.16 - General Record Keeping Requirements, of this permit.

## SECTION D.2

## EMISSIONS UNIT OPERATION CONDITIONS

### Emissions Unit Description:

- (g) 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.2.1 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.16 - General Record Keeping Requirements, of this permit.

## SECTION D.3

## EMISSIONS UNIT OPERATION CONDITIONS

### Emissions Unit Description:

- (a) Five (5) existing Aqueous Detergent Parts Washer Systems, Emission Unit ID's 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 usage capacity of 37,000 pounds per year each. Parts Washer Systems Emission Unit ID's W-2 and W-3 were installed in 1994, W-1 - in 1993, W-5 - in 1999. Emission are exhausted to the atmosphere through the Stacks PE-35, PE-15, PE-37, PE-45, and PE-41;

(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.3.1 326 IAC 8-1-1 (b) & (c) (General Provisions relating to VOC rules: applicability)  
326 IAC 8-3 (Organic Solvent Degreasing Operations)

Any change or modification to the Emission Units ID's W-1, W-2, W-3, W-4, and W-5 which may increase their individual actual VOC emission before add-on controls to 15 pounds per day shall obtain prior approval from the Office of Environmental Services (OES) and IDEM Office of Air Quality (OAQ).

Compliance with this conditions shall make the 326 8-3 (Organic Solvent Degreasing Operations) not applicable.

### Record Keeping and Reporting Requirements

#### D.3.2 Record Keeping Requirements

- (a) Records of the amount and VOC/HAP content of the cleaners used in the parts washers Emission Units ID's W-1, W-2, W-3, W-4, and W-5 shall include purchase orders, invoices, and material safety data sheets (MSDS) necessary to verify the type, amount used and the annual emissions.
- (b) All records shall be maintained in accordance with Section C.16 - General Record Keeping Requirements, of this permit.

**City of Indianapolis**  
**Office of Environmental Services**  
**Air Compliance**  
2700 S. Belmont Ave.  
Indianapolis, Indiana 46221  
Phone: 317 / 327-2234, Fax: 317 / 327- 2274

**Malfunction / Excess Emissions Report**

Company Name: **Carrier Corporation**

Location: **7310 West Morris Street, Indianapolis, Indiana 46206**

Permit No.: **097-15061-00015**

Source/Facility:

Control/Device Which Malfunctioned:
Affected Facility:
Date of Malfunction:
Start Time of Malfunction:
Duration Time of Out of Service:
Pollutant/s Emitted During Malfunction: TSP, PM10, SO <sub>2</sub> , VOC, Other:
Estimate of Amount of Pollutant Emitted During the Malfunction (include how estimate was determined):
Measures Taken to Minimize Shutdown Time:
Reasons Why Facility Cannot be Shutdown During Repairs:
Interim Control Measures:
Measures Taken to Correct Malfunction:

Malfunction Reported By:
Title:
Signature:
Date: _____ Time: _____

The filing of such information is mandated by Federal, State, and Local Air Pollution Legislation. Violation of this mandate through omission or false information may be subject to penalty.

Submitted by: \_\_\_\_\_ Title/Position: \_\_\_\_\_  
(Print)

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

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

**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).

<b>Company Name: Carrier Corporation</b>
<b>Address: 7310 W. Morris Street</b>
<b>City: Indianapolis</b>
<b>Phone #: (317)-481-5746</b>
<b>MSOP #: 097-15061-00015</b>

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 097-15061- 00015**.  
 not in compliance with the requirements of **MSOP 097-15061-00015**.

<b>Authorized Individual (typed):</b>
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.

<b>Noncompliance:</b>

Mail to: Office of Environmental Services  
Air Compliance  
2700 South Belmont Avenue  
Indianapolis, Indiana 46221

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

Technical Support Document (TSD) for

**New Construction and Notice Only Change MSOP Revision**

**Source Background and Description**

<b>Source Name:</b>	<b>Carrier Corporation</b>
<b>Source Location:</b>	<b>7310 West Morris Street, Indianapolis, IN 46206</b>
<b>County:</b>	<b>Marion</b>
<b>SIC Code:</b>	<b>3585</b>
<b>Notice Only Change No.:</b>	<b>097-21725-00015</b>
<b>MSOP No.:</b>	<b>097-15061-00015</b>
<b>Permit Reviewer:</b>	<b>Boris Gorlin</b>

The Indianapolis Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ), and Indianapolis Office of Environmental Services (OES) have reviewed an application from Carrier Corporation relating to the construction and operation of a new Fan Coil Fin Press and modification of existing Fin Presses, new Autobrazer, new Cooling Towers, R&D Paint Booth, and a Vapor Phase Activated Carbon Unit as part of the Soil Remediation System, at the aluminum air conditioning coil manufacturing facility.

**Permitted Emission Units and Pollution Control Equipment**

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

- (a) Four (4) existing Burr Oak fin presses Emission Unit IDs P-1, P-2, P-3, and P-4, with maximum capacity throughput of 500 pounds of feedstock rolled aluminum per hour each, and two (2) new Burr Oak fin presses Emission Unit ID's P-5 and P-6, with maximum capacity throughput of 556 pounds of feedstock rolled aluminum per hour each, utilizing Arrow KT-70-2-FR as metal stamping fluid (petroleum solvent) containing 70% VOC by weight. Emissions are exhausted to the atmosphere through the Stack GV-1.
- (b) One (1) existing 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. Emissions are exhausted to the atmosphere through Stack RE-2. This Soil Remediation System was installed in 1994.
- (c) Five (5) existing Aqueous Detergent Parts Washer Systems, Emission Unit ID's 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 usage capacity of 37,000 pounds per year each. Parts Washer Systems Emission Unit ID's W-2 and W-3 were installed in 1994, W-1 - in 1993, W-5 - in 1999. Emissions are exhausted to the atmosphere through the Stacks PE-35, PE-15, PE-37, PE-45, and PE-41;
- (d) Two (2) existing Autobrazers, Emission Units ID's AB-1 and AB-2, burning natural gas, with total maximum capacity of 11.8 million cubic feet of Natural Gas per year. Emissions are exhausted to the atmosphere through the Stacks PE-39 and PE-50. Autoabrazers are conveyORIZED natural gas fired units in which copper return bends are brazed onto fan coil heat exchanger assemblies. The brazing alloy is provided in the form of rings placed on the

copper hairpin tubes of the fan coil assembly. Brazing flux is introduced into natural gas that is supplied to the autobrazer.

### Unpermitted Emission Units and Pollution Control Equipment

There are no unpermitted facilities operating at this source during this review process.

### Existing Approvals

The source (previously United Technologies Carrier) has been operating under previous approvals including, but not limited to, the following:

- (a) MSOP 097-15061-00015, issued on April 1, 2002 (Four existing Fin Presses P-1 - P-4, and two new Fin Presses P-5 and P-6).
- (b) MSOP NOC 097-16837-00015, issued on December 6, 2002 (change in the Soil Remediation System operation).
- (c) MSOP NOC 097-19004-00015, issued on May 17, 2005 (removal of the Annual Emission Statement requirement).

All conditions from the latest MSOP version, as modified by 097-19004-00015, were incorporated into this permit, except Conditions B.4 (Revocation of Permits) and B.6 (Minor Source Operating Permit) that were deleted because no construction conditions are included in this Notice Only Change for existing source, and all previously approved construction has taken place.

### Justification for the Revision

The MSOP is being revised through a Notice Only Change:

- (a) pursuant to 326 IAC 2-6.1-6(d)(13), as a modification that adds an emissions unit or units, or makes changes to the processes of the same type that are already permitted and that will comply with the same applicable requirements and permit terms and conditions as the existing emission unit or units, and will not result in a potential to emit greater than the thresholds in 326 IAC 2-2 or 326 IAC 2-3, and
- (b) as a modification that adds an emission unit or units with potential emissions that are less than thresholds for minor source revision pursuant to 326 IAC 2-6.1-6(g)(4).

### Revision changes:

- (a) The permittee is permanently replacing the evaporative lubricant Arrow KT-70-2-FR, containing 70% of VOC by weight, used in existing stamping operations (fin presses Emission Units IDs P1 - P6), with new 8997 FR Evaporative Lubricant (mineral spirit), containing 42.76 % VOC by weight. The VOC content of the replacement lubricant will continue to consist of petroleum distillate solvent with no indicated HAP constituents. This change will result in decrease of the stamping operations VOC emission from the current level of 87 ton/yr to less than 65 ton/yr (see Appendix A - Emission Calculations, five (5) pages).
- (b) Addition of one (1) Fan Coil Fin Press, Emission Unit ID P-7, with 36.75 inches wide Coil Stock and with maximum capacity of 500 pounds of aluminum per hour, which will use the new low VOC 8997 FR Evaporative Lubricant. The new Fin Press EU ID P-7 unlimited potential to emit VOC is 9.75 tons per year (see Appendix A - Emission Calculations, page 1 of 6). Construction of the new Fin Press EU P-7 will result in VOC emission increase of less than twenty five (25) tons per year, and equal to or greater than 5 tons per year, but less than 10 tons per year, not requiring the use of air pollution control equipment.

- (c) Correction of the Fin Presses Emission Units P-5 and P-6 capacity from 556 lb/hr of aluminum to 500 and 300 lb/hr of aluminum, respectively, and maximum potential stamping fluid usage in Fin Press EU P-6 from 0.8 to 0.5 lb/hr.
- (d) Addition of the Vapor Phase Activated Carbon unit to the existing Soil Remediation System for removal of perchloroethylene (PCE) from groundwater, Emission Unit ID SR-1. The Vapor Phase Activated Carbon Unit is intended for additional PCE removal from airflow generated through the soil vapor extraction/air sparging portion of the system. No emission increase will result from this change. The Vapor Phase Activated Carbon unit was installed in 2006. It is an additional control device which will not result in emission increase.
- (e) Addition of one (1) new Autobrazer, Emission Unit ID AB-3, burning natural gas, with maximum heat input capacity of 1.2 MMBtu/hr. Emissions are exhausted to the atmosphere through the Stack PE-51. A combined total production capacity of the two (2) existing and one (1) new Autobrazers is 267 fan coil slabs per hour using 28.8 lb/hour of braze rings and 0.87 lb/hr of gas flux.
- (f) Addition of four (4) new forced draft Cooling Towers, Emission Units CT-1, CT-2, CT-3, and CT-4, 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.
- (g) Addition of one (1) Paint Booth, used for Research and Development, 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.

#### **Emission Units After Notice Only Change**

Emission unit descriptions are being modified in this revision to reflect proper equipment and stack identification numbers.

- (a) Fin Presses:
  - (1) Five (5) existing Fan Coil Fin Presses Emission Unit ID's P-1 (installed in 1991), P-2 (installed in 1991), P-3 (installed in 1998), P-4 (installed in 1991), P-5 (installed in 2003), and one (1) new Fan Coil Fin Press Emission Unit ID's P-7 (planned to be installed in 2006), each press with 36.75 inches wide Coil Stock with maximum capacity of 500 pounds of aluminum per hour, utilizing 8997 FR Evaporative Lubricant as metal stamping fluid (mineral spirit) containing 42.76 % VOC by weight. Emissions are exhausted to the atmosphere through the Stack GV-1.
  - (2) One existing ICP 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, utilizing 8997 FR Evaporative Lubricant as metal stamping fluid (mineral spirit) containing 42.76 % VOC by weight. Emissions are exhausted to the atmosphere through the Stack GV-1.
- (b) One (1) existing Soil Remediation System, 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, one (1) air stripping tower for Air Stripping and Soil Vapor Extraction, and one (1) Vapor Phase Activated Carbon unit for removal of perchloroethylene (PCE) from groundwater. Emissions are exhausted to the atmosphere through Stack RE-2. The Soil Remediation System was installed in 1994.

- (c) Five (5) existing Aqueous Detergent Parts Washer Systems, Emission Unit ID's 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 usage capacity of 37,000 pounds per year each. Parts Washer Systems Emission Unit ID's W-2 and W-3 were installed in 1994, W-1 - in 1993, W-5 - in 1999. Emissions are exhausted to the atmosphere through the Stacks PE-35, PE-15, PE-37, PE-45, and PE-41.
- (d) Two (2) existing Autobrazers, Emission Units ID's AB-1 and AB-2, burning natural gas, with total maximum capacity of 11.8 million cubic feet of Natural Gas per year, and one (1) new Autoabrazer, Emission Unit AB-3, burning natural gas, with maximum heat input capacity of 1.2 MMBtu/hr. Emission are exhausted to the atmosphere through the Stacks PE-39, PE-50 (Autoabrazers AB-1 and AB-2, respectively), and AB-1-1 and AB1-2 (Autoabrazer AB-3). Autoabrazers are conveyORIZED natural gas fired units in which copper return bends are brazed onto fan coil heat exchanger assemblies. The brazing alloy is provided in the form of rings placed on the copper hairpin tubes of the fan coil assembly. Brazing flux is introduced into natural gas that is supplied to the autobrazer.
- (e) Four (4) new forced draft Cooling Towers, Emission Units CT-1, CT-2, CT-3, and CT-4, 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, 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 dry paint arrestor panel filters.

#### **Enforcement Issue**

There are no enforcement actions pending.

#### **Recommendation**

The staff recommends to the Administrator that the construction and operation 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.

A complete application for the purposes of this review was received on September 1, 2005, with additional information received on February 2, 2006, March 16, 2006, and April 12, 2006.

#### **Emission Calculations**

See Appendix A of this document for detailed emissions calculations of new units (six pages).

#### **Potential To Emit Prior to Notice Only Change**

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

Pollutant	Existing Emission Units, Prior to Revision	Notice Only Change Emission Increase/Decrease	Existing and New Emission Units, After Revision
PM	0.2	2.4	2.597
PM-10	0.2	2.4	2.597
SO <sub>2</sub>	0.01	0.006	0.016
VOC	99.0	-29.4	69.6
CO	0.4	0.15	0.545
NO <sub>x</sub>	2.0	0.6	2.596
<b>HAPs</b>			
Glycol Ether	2.035	0.948	2.983
<b>TOTAL HAP's</b>	<b>2.256</b>	<b>0.948</b>	<b>3.204</b>

- (a) The potential to emit (as defined in 326 IAC 2-7-1(29)) of all criteria pollutants are less than 100 tons per year. Therefore, the source is not subject to the provisions of 326 IAC 2-7.
- (b) The potential to emit (as defined in 326 IAC 2-7-1(29)) of Volatile Organic Compounds (VOC) is greater than 25 tons per year. Therefore, the source is subject to the provisions of 326 IAC 2-6.1.
- (c) The potential to emit (as defined in 326 IAC 2-7-1(29)) of any single HAP is less than ten (10) tons per year and the potential to emit (as defined in 326 IAC 2-7-1(29)) of a combination of HAPs is less than twenty-five (25) tons per year. Therefore, the source is not subject to the provisions of 326 IAC 2-7.
- (d) **Fugitive Emissions**  
 Since this type of operation is not one of the twenty-eight (28) listed source categories under 326 IAC 2-2 and since there are no applicable New Source Performance Standards that were in effect on August 7, 1980, the fugitive particulate matter (PM) and volatile organic compound (VOC) emissions are not counted toward determination of PSD and Emission Offset applicability.

**Actual Emissions**

The following table shows the actual emissions from the source. This information reflects the 2004 Annual Emission Statement.

Pollutant	Actual Emissions (tons/year)
PM	Not reported
PM-10	Not reported
SO <sub>2</sub>	0.012
VOC	12.7
CO	0.11
NO <sub>x</sub>	0.93
<b>Total HAPs</b>	<b>0.155</b>

### County Attainment Status

The source is located in Marion County.

Pollutant	Status
PM-2.5	nonattainment
PM-10	attainment
SO <sub>2</sub>	maintenance attainment
NO <sub>2</sub>	attainment
8-hour Ozone	basic nonattainment
CO	attainment
Lead	attainment

- (a) Volatile organic compounds (VOC) and Nitrogen Oxides (NOx) are regulated under the Clean Air Act (CAA) for the purposes of attaining and maintaining the National Ambient Air Quality Standards (NAAQS) for ozone. Therefore, VOC and NOx emissions are considered when evaluating the rule applicability relating to the ozone standards. Marion County has been designated as nonattainment for the 8-hour ozone standard. Therefore, VOC and NOx emissions were reviewed pursuant to the requirements for Emission Offset, 326 IAC 2-3.
- (b) 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 surrogate for PM2.5 emissions, pursuant to the Non-attainment New Source Review requirements. See the State Rule Applicability for the source section.
- (c) Marion County has been classified as attainment or unclassifiable in Indiana for PM10, SO<sub>2</sub>, NO<sub>2</sub>, CO, and Lead. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2. See the State Rule Applicability for the source section.
- (b) On August 7, 2006, a temporary emergency rule took effect revoking the one-hour ozone standard in Indiana. The Indiana Air Pollution Control Board has approved a permanent rule revision to incorporate this change into 326 IAC 1-4-1. A permanent revision to 326 IAC 1-4-1 will take effect prior to the expiration of the emergency rule.
- (e) Fugitive  
Since this type of operation is not one of the 28 listed source categories under 326 IAC 2-2 or 2-3 and since there are no applicable New Source Performance Standards that were in effect on August 7, 1980, the fugitive particulate matter (PM) and volatile organic compound (VOC) emissions are not counted toward determination of PSD and Emission Offset applicability.

### Source Status After the Notice Only Change

Existing Source PSD, Emission Offset, Part 70 or FESOP Definition (emissions after controls, based on 8,760 hours of operation per year at rated capacity and/ or as otherwise limited):

Pollutant	Existing and New Emission Units, After Revision
PM	2.597
PM-10	2.597
SO <sub>2</sub>	0.016
VOC	69.6
CO	0.545
NO <sub>x</sub>	2.596

HAPs	
Glycol Ether	2.983
TOTAL HAP's	3.204

- (a) This existing source is not a major stationary source because no attainment regulated pollutant is emitted at a rate of 250 tons per year or greater, no nonattainment pollutant is emitted at a rate of 100 tons per year or greater, and it is not in one of the 28 listed source categories.
- (b) The potential to emit (as defined in 326 IAC 2-7-1(29)) of Volatile Organic Compounds (VOC) after the Notice Only Change is greater than 25 tons per year. Therefore, the source is subject to the provisions of 326 IAC 2-6.1.
- (c) The potential to emit (as defined in 326 IAC 2-7-1(29)) of any single HAP is less than ten (10) tons per year and the potential to emit (as defined in 326 IAC 2-7-1(29)) of a combination of HAPs is less than twenty-five (25) tons per year. Therefore, the source is not subject to the provisions of 326 IAC 2-7.
- (d) These emissions were based on previously issued permits and the Notice Only Change application submitted by the company.

**Part 70 Permit Determination**

**326 IAC 2-7 (Part 70 Permit Program)**

This existing source, with total potential to emit (PTE) as indicated in this Notice Only Change, is still not subject to the Part 70 Permit requirements because the PTE of:

- (a) each criteria pollutant is less than 100 tons per year,
- (b) a single hazardous air pollutant (HAP) is less than 10 tons per year, and
- (c) any combination of HAPs is less than 25 tons/year.

This status is based on all the air approvals issued to the source. This status has been verified by the OES inspector assigned to the source.

**Federal Rule Applicability**

- (a) There are no New Source Performance Standards (NSPS)(326 IAC 12 and 40 CFR Part 60) included in this permit.
- (b) The 40 CFR Part 63 NESHAP, Subpart NNNN (Surface Coating of Large Appliances) is not included in this permit for the fin presses Emission Units P-1 - P-7 because the metal stamping fluid (Evaporative Lubricant) is Protective Oil which is not considered "coating" for the purposes of this subpart.
- (c) 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 for four (4)

new 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, §63.401.

- (d) There are no other National Emission Standards for Hazardous Air Pollutants (NESHAPs)(326 IAC 14 and 40 CFR art 63) included in this permit.

#### State Rule Applicability - Entire Source

##### 326 IAC 2-4.1-1 (New Source Toxics Rule)

- (a) The sourcewide HAPs PTE is 2.256 ton/yr (0.221 ton/yr of Perchloroethylene from the Soil Remediation System EU ID #SR-1, 2.035 ton/yr of Glycol Ether from the Parts Washer Systems EU ID's # W3, W4 and W5), and less than one (1) ton of combined HAPs from the new R&D Paint Booth EU ID.
- (e) The new R&D Paint Booth Potential to Emit HAPs is less than one (1) ton of combined HAPs.

No HAPs will be emitted at 10 ton/yr of individual HAP or 25 ton/yr of combined HAP emissions. Therefore, the New Source Toxics Rule (326 IAC 2-4.1-1) will not apply.

#### State Rule Applicability - Individual Facilities

##### 326 IAC 2-1.1-3 Exemptions

- (a) Pursuant to 326 IAC 2-1.1-3(e)(5)(A), the Autoabrazers Emission Units ID's AB-1, AB-2, and AB-3 are exempt from permitting requirements as heat treat furnaces with heat input less than 10 MMBtu per hour each burning only natural gas.
- (b) The new Research and Development (R&D) Paint Booth, primary purpose of which is research and development of new and improved processes and products, will not be used for production of more than de minimis amounts of commercial products, will not contribute to the manufacture of commercial products by the Permittee in more than a de minimis manner, and will be operated under close supervision of technically trained personnel. R&D Paint Booth PTE of VOC is 2.67 tons per year and less than 15 pounds per day (see Appendix A - page 5 of 6). Therefore, pursuant to 326 IAC 2-1.1-3(e)(2), the R&D Paint Booth is exempt from permitting requirements.
- (c) The four (4) new Cooling Towers Emission Units CT-1, CT-2, CT-3, and CT-4 are forced draft non-contact cooling towers associated with HVAC chilled water systems at the plant and are exempted from permitting requirements, pursuant to 326 IAC 2-1.1-3(e)(13)(F)(ii).

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

- (a) The new R&D Paint Booth is not subject to this rule:
- (1) pursuant to 326 IAC 6-3-1(b)(14), because the PM PTE is less than 0.551 pounds per hour;
- (2) pursuant to 6-3-1.5(2), because this is not a manufacturing process as defined in 326 IAC 6-3-1.5(2) (not "any single series of actions, operations, or treatments in which a mechanical, physical, or chemical transformation of material occurs that emits, or has the potential to emit, particulate in the production of a product). This operation is not producing particulate emission in the production of a product;

- (3) pursuant to 326 IAC 6-3-2(d), because coating usage in the R&D Paint Booth will be less than 5 gallons per day.
- (b) The four (4) new Cooling Towers Emission Units C-1 to C-4 are exempt from this rule, pursuant to 326 IAC 6-3-1(b)(11), as Noncontact Cooling Tower Systems.
- (c) The one (1) new Autobrazer, Emission Unit AB-3, is not subject to this rule, because the PM PTE is less than 0.551 pounds per hour.

**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:

- (a) the new and existing fin presses Emission Units ID's ## P-1 - P-7 are operating independently from each other, and potential emissions from each fin press are less than 25 tons per year (see TSD Appendix A, page 1 of 6);
- (b) the new R&D Paint Booth potential VOC emissions from coating are less than 25 tons per year.

**326 IAC 8 -2 (Surface Coating Emission Limitations)**

- (a) Pursuant to 326 IAC 8-2-1 (Applicability), the new R&D Paint Booth is not subject to this rule because its potential VOC emission is less than 15 pounds per day before add-on control and less than 25 tons per year.
- (b) 326 IAC 8-2-4 (Coil coating operations)  
Pursuant to 326 IAC 8-2-1, existing and new Fin Presses Emission Units P-1 to P-7 are not subject to 326 IAC 8-2-4 (Coil coating operations) because their potential VOC emission is less than 15 pounds per day before add-on control.

No other 326 IAC 8 rules and requirements apply to these emission units.

**Conclusion**

The construction and operation of additional emission units at this aluminum air conditioning coil manufacturing facility shall be subject to the conditions of the attached Notice Only Change **097-21725-00015**.

Company: Carrier Corporation  
 Address: 7310 West Morris Street  
 Permit No.: 097-21725-00015  
 Pit ID: 097-00015  
 Reviewer: B. Gotlin

Fin Presses Emission Calculation

8997FR Low VOC Fin Stamping Evaporative Lubricant Properties	
Specific Gravity	0.78
Lube Density (lb/gal)	6.51
Percent Volatile by Weight	42.76%
Volatile Organic Compound Content (lb/gal)	2.78

Em. Unit	Description	Material	Capacity, alum. (old)	Capacity, alum. (new)	Maximum Potential Fin Stamping Lubricant Usage (old)	Maximum Potential Fin Stamping Lubricant Usage (new)	VOC Content (Old)	VOC Content (new)	PTE Basis		Maximum Potential Lube Use (old)	Maximum Potential Lube Use (new)			Max. VOC PTE (old)	Maximum Potential VOC (new)			Emission Increase/d from Mod.		
									(hr/day)	(hr/yr)		gal/day	gal/mon	gal/yr		lb/day	lb/yr	ton/yr		lb/hr	lb/day
P-1	Existing Fan Coil Fin Press	8997 FR Evaporative Lubricant	500	500	0.695	0.8	4.55	2.78	24.00	8760	6,088	19.2	584	7,008	13.85	2.23	53.4	19,494	9.75	-4.10	
P-2	Existing Fan Coil Fin Press	8997 FR Evaporative Lubricant	500	500	0.695	0.8	4.55	2.78	24.00	8760	6,088	19.2	584	7,008	13.85	2.23	53.4	19,494	9.75	-4.10	
P-3	Existing Fan Coil Fin Press	8997 FR Evaporative Lubricant	500	500	0.695	0.8	4.55	2.78	24.00	8760	6,088	19.2	584	7,008	13.85	2.23	53.4	19,494	9.75	-4.10	
P-4	Existing Fan Coil Fin Press	8997 FR Evaporative Lubricant	500	500	0.695	0.8	4.55	2.78	24.00	8760	6,088	19.2	584	7,008	13.85	2.23	53.4	19,494	9.75	-4.10	
P-5	Existing Fan Coil Fin Press	8997 FR Evaporative Lubricant	556	500	0.8	0.8	4.55	2.78	24.00	8760	7,008	19.2	584	7,008	15.94	2.23	53.4	19,494	9.75	-6.20	
P-6	Existing ICP Fin Press	8997 FR Evaporative Lubricant	556	300	0.8	0.5	4.55	2.78	24.00	8760	7,008	12.0	365	4,380	15.94	1.39	33.4	12,184	6.09	-9.85	
P-7	Proposed Fan Coil Fin Press	8997 FR Evaporative Lubricant		500		0.8	2.78	24.00	8760	8760		19.2	584	7,008		2.23	53.4	19,494	9.75	9.75	
<b>Totals:</b>												<b>38,369</b>	<b>127.2</b>	<b>3,869</b>	<b>46,428</b>	<b>87,290</b>	<b>14.74</b>	<b>353.8</b>	<b>129,145</b>	<b>64.573</b>	<b>-22.72</b>

Company: Carrier Corporation  
 Address: 7310 West Morris Street  
 NOC No.: 097-21725-00015  
 MSOP No.: 097-15061-00015  
 Plt ID: 097-00015  
 Reviewer: B. Gorlin

**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)

Ib Drift per 1000 gallons recirculated	1.7
Ib PM10 per 1000 gallons recirculated	0.019

Unit	Description	Maximum Cooling Tower Water Recirculation Rate (gal/hr)	Total Dissolved Solids Content (lb/gal)	Operating Hours (hr/yr)	Maximum Estimated Drift (water droplet) Emissions			Maximum Potential PM/PM10 Emissions		
					lb/hr	lb/yr	ton/yr	lb/hr	lb/yr	ton/yr
CT-1	East Cooling Tower #1	2400	2000.00	8760	4.08	35741	17.87	0.046	399	0.20
CT-2	East Cooling Tower #2	2400	2000.00	8760	4.08	35741	17.87	0.046	399	0.20
CT-3	West Cooling Tower #1	900	2000.00	8760	1.53	13403	6.70	0.017	150	0.07
CT-4	West Cooling Tower #2	900	2000.00	8760	1.53	13403	6.70	0.017	150	0.07
<b>Totals</b>					<b>11.22</b>	<b>98287</b>	<b>49.14</b>	<b>0.13</b>	<b>1099</b>	<b>0.55</b>

**Company: Carrier Corporation**  
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**Plt ID: 097-00015**  
**Reviewer: B. Gorlin**

**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	<i>Proposed production rate after addition of 3rd Autobrazer</i>
<b>Maximum Braze Ring Usage</b>	28.8	lb/hr	Autobrazing
<b>Maximum Filler Rod Usage</b>	7.0	lb/hr	Manual Brazing w/ Hand Torches
	<u>35.8</u>	lb/hr	

Brazing Emission Factor

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

**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 <sub>10</sub> 0.002	0.043	0.01
Borate Gas Flux Emissions	PM/PM <sub>10</sub> 0.268	6.431	1.17
Subtotal:	<b>0.270</b>	<b>6.474</b>	<b>1.18</b>

**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  
 NOC No.: 097-21725-00015  
 MSOP No.: 097-15061-00015  
 Pit ID: 097-00015  
 Reviewer: B. Gorlin

**Natural Gas Combustion**

**Autobrazers PTE**

Unit ID #	SV ID	MMBtu/hr	Max. Heat Input Capacity	MMscf/year	Potential Throughput, MMscf/yr	TPY	TPY	TPY	TPY	TPY
AB-1	PE-39	0.5	4.380	0.026	0.001	0.219	0.018	0.046		
AB-2	PE-50	0.9	7.884	0.047	0.002	0.394	0.032	0.083		
<b>Totals (existing):</b>		1.4	12.264	0.074	0.004	0.613	0.049	0.129		
AB-3 (new)	PE-51	1.2	10.512	0.063	0.003	0.526	0.042	0.110		
<b>Totals (existing &amp; new):</b>		2.6	22.776	0.137	0.007	1.139	0.091	0.239		

**Aqueous Detergent Parts Washer Systems**

Unit ID #	SV ID	MMBtu/hr	Potential Throughput, MMscf/yr	TPY	TPY	TPY	TPY	TPY	TPY
W-1	PE-39	5.416	0.032	0.002	0.271	0.022	0.057		
W-2	PE-39	3.082	0.018	0.001	0.154	0.012	0.032		
W-3	PE-39	9.630	0.058	0.003	0.482	0.039	0.101		
W-4	PE-39	5.639	0.034	0.002	0.282	0.023	0.059		
W-5	PE-39	5.383	0.032	0.002	0.269	0.022	0.057		
<b>Totals:</b>		29.149	0.175	0.009	1.457	0.117	0.306		

<b>Total PTE (Nat. Gas)</b>	51.925	0.312	0.016	2.596	0.208	0.545
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Emission Factors are from AP 42  
 Assuming all particulates are less than 10 Micrometers in diameter  
 Emission (tons/yr)=Throughput (MMscf/yr) x Emission Factor (lb/MMscf) /2000 lb/ton, or:

Emission Factors, lb/MMscf	PM	SO <sub>2</sub>	NOx	VOC	CO
0.3-10	12	0.6	100	8	21

Company: Carrier Corporation  
 Address: 7310 West Morris Street  
 NOC No.: 097-21725-00015  
 MSOP No.: 097-15061-00015  
 P/ft ID: 097-00015  
 Reviewer: B. Gorlin

**Potential Emissions from R&D Paint Booth**

Maximum Potential Throughput Capacity (units)	6	per day	2,190	per year
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Manufacturer	Product	Density lb/gal	Maximum Gallons per unit	Potential Daily Usage gallons	Potential Annual Usage gallons	Worst case VOC Content lb/gal	VOC lb/day	VOC ton/year	Bis(2- ethylhexyl) Phthalate lbs	Worst Case HAP (Unless Specified, assume Glycol Ether)				
										%	lbs/yr	ton/yr		
Various	Air Dry Enamel	9.00	0.25	1.50	547.50	5.00	7.50	1.37	0.00	25.00%	1,232	0.616		
Various	Mineral Spirits Reducer	6.34	0.13	0.78	284.70	7.51	5.86	1.07	0.00	2.00%	36	0.018		
Various	Xylene Clean-up solvent	7.17	0.04	0.24	87.60	7.51	1.80	0.33		100.00%	628	0.314		
<b>Totals:</b>											<b>15.16</b>	<b>2.77</b>	<b>1,896</b>	<b>0.948</b>

Paint and Reducer VOC/HAP, as applied

lb/hr: 0.63

**Spray Paint Booth PM**

Product	Density lb/gal	Worst Case % Solids by Weight	Estimated Gallons per unit	Potential Daily Usage gallons	Potential Annual Usage gallons	Solids transfer efficiency %	Uncontrolled PM/PM10		Controlled PM/PM10	
							lb/day	ton/yr	lb/day	ton/year
Air Dry Enamel	9.00	45%	0.2500	1.50	547.50	50%	3.04	0.554	0.15	0.03

lb/hr: 0.13

0.006

Company: Carrier Corporation  
 Address: 7310 West Morris Street  
 NOC No.: 097-21725-00015  
 MSOP No.: 097-15061-00015  
 Plt ID: 097-00015  
 Reviewer: B. Gorlin

**VOC POTENTIAL EMISSIONS**

Seven (7) fin presses, Emission Unit ID's: P-1 - P-7, ton/yr	<b>64.573</b>
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**Soil Remediation System Potential Emissions**

**SVE Exhaust**

Maximum concentration of PCE (Perchloroethylene), mkg/l	107.46
Exhaust flow, scfm:	100
Exhaust flow, l/hr:	169,902
PCE Potential Emission:	
lb/day	0.9640
lb/yr	351.86
ton/yr	<b>0.176</b>

**Water Stripper**

Maximum concentration of PCE (Perchloroethylene), mg/l	12
Exhaust flow, l/month	285,221
PCE Potential Emission:	
lb/month	7.53
lb/yr	90.358
ton/yr	<b>0.045</b>

<b>Total PCE PTE, ton/yr</b>	<b>0.221</b>
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**Aqueous Detergent Parts Washer Systems**

EU ID#	Cleaner Throughput Capacity, lb/yr	Glycol Ether weight %	PTE	
			ton/yr	lb/day
W-3	37,000	1%	0.185	1.014
W-4	37,000	5%	0.925	5.068
W-5	37,000	5%	0.925	5.068
<b>Total Glycol Ether PTE</b>			<b>2.035</b>	<b>11.151</b>

**Autobrazers AB-1 & AB-2**

<b>PM/PM10 PTE, ton/yr</b>	<b>1.18</b>
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**R&D Paint Booth**

PM/PM10	<b>0.554</b>
VOC, ton/yr	<b>2.767</b>
Individual HAP (worst case, Glycol Ether), ton/yr	<b>0.948</b>
<b>Total HAPs, ton/yr</b>	<b>0.948</b>

**Total Sourcewide Potential Emissions (after 3rd Notice Only Change), ton/yr:**

PM/PM10	<b>2.597</b>
SO2	<b>0.016</b>
NOx	<b>2.596</b>
VOC	<b>69.595</b>
CO	<b>0.545</b>
Individual HAP (Glycol Ether)	<b>2.983</b>
<b>HAPs, total</b>	<b>3.204</b>