



INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

We Protect Hoosiers and Our Environment.

Mitchell E. Daniels Jr.
Governor

Thomas W. Easterly
Commissioner

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

TO: Interested Parties / Applicant

DATE: May 3, 2012

RE: Carrier Corporation / 097 - 31683 - 00015

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

Notice of Decision – Approval

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

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

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

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

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

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

Enclosures
FNPER-AM.dot12/3/07



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May 3, 2012

Mr. Jean Francois Brossoit
Carrier Corporation
7310 West Morris Street
Indianapolis, IN 46231

Re: 097-31683-00015
Second Notice-Only Change to
M097-24135-00015

Dear Mr. Brossoit:

Carrier Corporation was issued a Minor Source Operating Permit (MSOP) Renewal No. M097-24135-00015 on August 22, 2008 for a stationary air conditioning and furnace manufacturing facility located at 7310 West Morris Street, Indianapolis, IN 46231. On March 30, 2012, the Office of Air Quality (OAQ) received an application from the source:

- (1) relating to the construction and operation of two (2) new A090 fin presses, one (1) new A090 parts washer, and four (4) new cooling towers that are of the same type as the other permitted fine presses, parts washers and cooling towers. The new fin presses (P-8 and P-9), parts washer (W-6) and cooling towers (CT-5 to CT-8) will comply with the same applicable requirements and permit terms and conditions as the existing fin presses, parts washer and cooling towers, but will not cause the source's potential to emit to be greater than the threshold levels specified in 326 IAC 2-2 or 326 IAC 2-3. The uncontrolled/unlimited potential to emit of the entire source will continue to be less than the threshold levels specified in 326 IAC 2-7 (see Appendix A for the calculations). The addition of the new fin presses, parts washer and cooling towers to the permit is considered a notice-only change pursuant to 326 IAC 2-6.1-6(d)(13).
- (2) ~~updating the list and design heat inputs of the natural gas-fired equipment; update water recirculation rates on existing cooling towers; and to correct the calculation of emissions from the diesel-fired emergency generator. This change results in the change in descriptive information concerning the source or emissions units and is considered a notice-only change pursuant to 326 IAC 2-6.1-6(d)(2).~~

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

These emissions are based upon MSOP Renewal No.: 097-26700-00119 issued August 25, 2009.

Process/ Emission Unit	Potential To Emit of the Entire Source Prior to the Notice-Only Change (tons/year)								
	PM	PM10*	PM2.5	SO ₂	NOx	VOC	CO	Total HAPs	Worst Single HAP
Fin Presses (P-1 thru P-7)	-	-	-	-	-	63.14	-	-	-
Cooling Towers (CT-1 thru CT-4)	0.55	0.55	0.55	-	-	-	-	-	-
Miscellaneous Production	-	-	-	-	-	10.71	-	3.063	2.30 (Glycol Ethers)
Autobrazer	1.18	1.18	1.18	-	-	-	-	-	-
Natural Gas Combustion	1.92	1.92	1.92	0.15	25.27	1.39	21.23	0.48	0.45 (Hexane)
Emergency Generators	0.008	0.006	0.006	0.003	0.59	0.01	0.84	0.007	negl.
Parts Washer (W-1 thru W-5)	-	-	-	-	-	1.35	-	1.35	1.35 (Glycol Ethers)
R & D Paint Booth	0.55	0.55	0.55	-	-	2.77	-	0.95	0.95 (Glycol Ethers)
soil Remediation	-	-	-	-	-	0.028	-	1.59	1.68 (PCE)
Total PTE of Entire Source	4.21	4.21	4.21	0.152	25.8	79.37	22.05	<25	<10
Title V Major Source Thresholds**	NA	100	100	100	100	100	100	25	10
PSD Major Source Thresholds**	250	250	NA	250	250	250	250	NA	NA
Emission Offset/ Nonattainment NSR Major Source Thresholds	NA	NA	100	NA	NA	NA	NA	NA	NA
- = negligible *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". **The 100,000 CO ₂ e threshold represents the Title V and PSD subject to regulation thresholds for GHGs in order to determine whether a source's emissions are a regulated NSR pollutant under Title V and PSD.									

The following table is used to determine the appropriate permit level under 326 IAC 2-6.1-6. This table reflects the PTE before controls of the proposed revision. Control equipment is not considered federally enforceable until it has been required in a federally enforceable permit.

Process/ Emission Unit	PTE of Proposed Revision (tons/year)									
	PM	PM10	PM2.5	SO ₂	NOx	VOC	CO	GHGs as CO ₂ e	Total HAPs	Worst Single HAP
Fin Presses (P-8 and P-9)	0	0	0	0	0	19.6	0	0	0	0
Cooling Towers (CT-5 thru CT-8)	0.45	0.45	0.45	0	0	0	0	0	0	0
Parts Washer (W-6)	0	0	0	0	0	0	0	0	0	0
Total PTE of Proposed Revision	0.45	0.45	0.45	0	0	19.6	0	0	0	0

Even though the PTE of the proposed revision can be considered as a minor permit revision under 326 IAC 2-6.1-6(g)(4), the source opted to process this as a notice only under 326 IAC 2-6.1-6(d)(13).

The table below summarizes the potential to emit of the entire source, with updated emissions shown as **bold** values and previous emissions shown as ~~strike through~~ values.

Process/ Emission Unit	Potential To Emit of the Entire Source to accommodate the Notice-Only Change (tons/year)									
	PM	PM10*	PM2.5	SO ₂	NO _x	VOC	CO	GHGs as CO ₂ e**	Total HAPs	Worst Single HAP
Fin Presses (P-1 thru P-7 P-9)	-	-	-	-	-	63.14 82.20	-	-	-	-
Cooling Towers (CT-1 thru CT-4 CT-8)	0.55 0.93	0.55 0.93	0.55 0.93	-	-	-	-	-	-	-
Autobrazer	1.18	1.18	1.18	-	-	-	-	-	-	-
Miscellaneous Production ¹	-	-	-	-	-	10.71 8.41	-	-	3.063 0.77	2.30 0.56 (Glycol Ethers)
Natural Gas Combustion	1.92 0.58	1.92 2.31	1.92 2.31	0.15 0.18	25.27 30.34	1.39 1.67	21.23 25.48	36,626	0.48 0.57	0.45 0.55 (Hexane)
Parts Washer (W-1 thru W-5 W-6)	-	-	-	-	-	1.35 1.48	-	-	1.35 1.38	1.35 1.38 (Glycol Ethers)
R & D Paint Booth	0.55	0.55	0.55	-	-	2.77	-	-	0.95	0.95 (Glycol Ethers)
Emergency Generators	0.008 0.25	0.006 0.25	0.006 0.25	0.003 0.25	0.59 3.46	0.01 0.24	0.84 1.46	-	0.007 0.37	- 0.11 Formaldehyde
Soil Remediation	-	-	-	-	-	0.028	-	-	1.59	1.68 (PCE)
Total PTE of Entire Source	4.21 3.50	4.21 5.23	4.21 5.23	0.152 0.38	25.8 33.79	79.37 96.81	22.05 26.94	36,626	<25 <25	<10 <10
Title V Major Source Thresholds**	NA	100	100	100	100	100	100	100,000	25	10
PSD Major Source Thresholds**	250	250	NA	250	250	250	250	100,000	NA	NA
Emission Offset/ Nonattainment NSR Major Source Thresholds	NA	NA	100	NA	NA	NA	NA	NA	NA	NA

- = negligible

*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".

**The 100,000 CO₂e threshold represents the Title V and PSD subject to regulation thresholds for GHGs in order to determine whether a source's emissions are a regulated NSR pollutant under Title V and PSD.

These emissions are based upon MSOP Renewal No.: 097-26700-00119 issued August 25, 2009.

1. Removed 3160 Aluminum Cleaner NSS from Miscellaneous Production and added to Parts Washer. Parts Washer calculation updated to include current cleaning solutions.

The table below summarizes the potential to emit of the entire source after issuance of this revision, reflecting all limits, of the emission units. Any control equipment is considered federally enforceable only after issuance of this MSOP permit revision, and only to the extent that the effect of the control equipment is made practically enforceable in the permit. (Note: the table below was generated from the above table, with bold text un-bolded and strikethrough text deleted)

Process/ Emission Unit	Potential To Emit of the Entire Source After Issuance of Notice-Only Change (tons/year)									
	PM	PM10*	PM2.5	SO ₂	NOx	VOC	CO	GHGs as CO ₂ e**	Total HAPs	Worst Single HAP
Fin Presses (P-1 thru P-9)	-	-	-	-	-	82.20	-	-	-	-
Cooling Towers (CT-1 thru CT-8)	0.93	0.93	0.93	-	-	-	-	-	-	-
Autobrazer	1.18	1.18	1.18	-	-	-	-	-	-	-
Miscellaneous Production ¹	-	-	-	-	-	8.41	-	-	0.77	0.56 (Glycol Ethers)
Natural Gas Combustion	0.58	2.31	2.31	0.18	30.34	1.67	25.48	36,626	0.57	0.55 (Hexane)
Parts Washer (W-1 thru W-6)	-	-	-	-	-	1.48	-	-	1.38	1.38 (Glycol Ethers)
R & D Paint Booth	0.55	0.55	0.55	-	-	2.77	-	-	0.95	0.95 (Glycol Ethers)
Emergency Generators	0.25	0.25	0.25	0.25	3.46	0.24	1.46	-	0.37	0.11 Formaldehyde
Soil Remediation	-	-	-	-	-	0.028	-	-	1.59	1.68 (PCE)
Total PTE of Entire Source	3.50	5.23	5.23	0.38	33.79	96.81	26.94	36,626	<25	<10
Title V Major Source Thresholds**	NA	100	100	100	100	100	100	100,000	25	10
PSD Major Source Thresholds**	250	250	NA	250	250	250	250	100,000	NA	NA
Emission Offset/ Nonattainment NSR Major Source Thresholds	NA	NA	100	NA	NA	NA	NA	NA	NA	NA
<p>- = negligible *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". **The 100,000 CO₂e threshold represents the Title V and PSD subject to regulation thresholds for GHGs in order to determine whether a source's emissions are a regulated NSR pollutant under Title V and PSD. These emissions are based upon MSOP Renewal No.: 097-26700-00119 issued August 25, 2009.</p> <p>1. Removed 3160 Aluminum Cleaner NSS from Miscellaneous Production and added to Parts Washer. Parts Washer calculation updated to include current cleaning solutions.</p>										

Fin Presses P-8 and P-9

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

The Fin Presses, identified as P-8 and P-9 are not subject to 326 IAC 8-1-6 (New facilities; general reduction requirements) because the fin presses VOC emissions from each fin press are less than 25 tons per year.

Parts Washer W-6

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

- (a) VOC (Glycol Ether) content and daily cleaner consumption in parts washer W-6 shall be limited to less than 15 pounds of VOC per day. Pursuant to 326 IAC 8-1-1(b), Parts Washer W-6 is 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 W-6. Records shall include purchase orders, invoices, and material safety data sheets (MSDS) necessary to verify the type, amount used and daily VOC emissions.

Greenhouse Gases

The potential to emit (PTE) (as defined in 326 IAC 2-1.1-1) greenhouse gases (GHGs) is less than the Title V subject to regulation threshold of one hundred thousand (100,000) tons of CO₂ equivalent emissions (CO₂e) per year. Therefore, the source is not subject to the provisions of 326 IAC 2-7.

Pursuant to the provisions of 326 IAC 2-6.1-6, the permit is hereby revised as follows with the deleted language as ~~strikeouts~~ and new language **bolded**.

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)~~ **Eight (8)** 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), **P-8 and P-9 (installed in 2011)**, 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) ***
- (c) ~~Five (5)~~ **Six (6)** Aqueous Detergent Parts Washer Systems, Emission Unit IDs W-1, W-2, W-3, W-4, ~~and W-5~~, **and W-6**, consisting of wash/rinse furnaces burning natural gas with total maximum capacity of ~~29.4~~ **8.4** 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, **W-6 was installed in 2011**. Emissions are exhausted to the atmosphere through Stacks PE-15, PE-35, PE-37, PE-41, ~~and PE-45~~, **and PE-49**.
- (d) ***

- (e) ~~Four (4)~~ **Eight (8)** forced draft Cooling Towers, Emission Units IDs CT-1, CT-2, CT-3, and CT-4, constructed in 2006 **and CT-5, CT-6, CT-7 and CT-8 constructed in 2011**, 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~~ **2,275** gallons per hour each; CT-3 **has a maximum evaporative water recirculation rate of 236 gallons per hour**; ~~and CT-4 have has~~ a maximum evaporative water recirculation rate of ~~900~~ **1,020** gallons per hour each; **CT-5 has a maximum evaporative water recirculation rate of 1,704 gallons per hour; CT-6 has a maximum evaporative water recirculation rate of 379 gallons per hour; CT-7 has a maximum evaporative water recirculation rate of 1,800 gallons per hour; and CT-8 has a maximum evaporative water recirculation rate of 1,500 gallons per hour.**
- (f) ***
- (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~~ **33.621** MMBtu/hr.
 - (2) ~~Twenty three (23)~~ **Twenty-four (24)** Building 9 heaters/air make-up units, with total heat input capacity of ~~6.173~~ **6.269** MMBtu/hr.
 - (3) ~~Five (5)~~ **Four (4)** 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)~~ **Two hundred and twenty-five (225)** Production Line Test Stations, with total heat input capacity of ~~2.299~~ **1.162** MMBtu/hr.
- (h) ***
- (i) ***

SECTION D.1 FACILITY OPERATION CONDITIONS

Emission Units Description:

- (a) ~~Six (6)~~ **Eight (8)** 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), **P-8 and P-9 (installed in 2011)**, 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.

(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 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~~, **P-8 and P-9** 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)~~ **Six (6)** Aqueous Detergent Parts Washer Systems, Emission Unit IDs W-1, W-2, W-3, W-4, ~~and W-5~~, **and W-6**, consisting of wash/rinse furnaces burning natural gas with total maximum capacity of ~~29.4~~ **8.4** 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, **W-6 was installed in 2011**. Emissions are exhausted to the atmosphere through Stacks PE-15, PE-35, PE-37, PE-41, ~~and PE-45 and PE-49~~.

(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)~~ **Six (6)** Aqueous Detergent Parts Washer Systems, Emission Unit IDs W-1, W-3, W-4, ~~and W-5~~, **and W-6** 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~~, **and W-6** 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.

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~~, **and W-6**. Records shall include purchase orders, invoices, and material safety data sheets (MSDS) necessary to verify the type, amount used and daily VOC emissions.

SECTION D.4 FACILITY OPERATION CONDITIONS

Emission Units Description:

(g) Natural gas fired heating units:

- (3) ~~Five (5)~~ **Four (4)** 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)~~ **four (4)** 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.

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

1. For clarity, IDEM has changed references to the general conditions: *"in accordance with Section B"*, *"in accordance with Section C"*, or other similar language, to "Section C ... contains the Permittee's obligations with regard to the records required by this condition."
2. IDEM has decided that the phrases *"no later than"* and *"not later than"* are clearer than *"within"* in relation to the end of a timeline. Therefore all timeline have been switched to *"no later than"* or *"not later than"* except for the timelines in Section B.10 and Section C.14 because the underlying rules state for these conditions specify *"within"*.
3. Section B -Duty to Provide Information has been revised.
4. IDEM has determined that rather than having a Certification condition and various references throughout the permit as to whether a particular report, notice, or correspondence needs to include a certification, the specific conditions that require an affirmation of truth and completeness shall state so. The certification condition has been removed. All statements to whether a certification, pursuant to the former Section B - Certification, is needed or not have been removed.

Section B - Credible Evidence and Section C - Asbestos Abatement Projects still require certification as the underlying rules also require certifications.
5. To clarify that Section B - Certification only states what a certification must be, IDEM has revised the condition.
6. IDEM has decided to clarify what rule requirements a certification needs to meet. IDEM has decide to remove the last sentence dealing with the need for certification from the form because the Condition requiring the form already address this issue.

7. IDEM has decided to clarify Section B - Preventive Maintenance Plan.
8. IDEM has decided to state which rule establishes the authority to set a deadline for the Permittee to submit additional information. Therefore, Section B - Permit Renewal has been revised.
9. IDEM has added 326 IAC 5-1-1 to the exception clause of Section C - Opacity, since 326 IAC 5-1-1 does list exceptions.
10. IDEM has revised Section C - Incineration to more closely reflect the two underlying rules.
11. IDEM has removed the first paragraph of Section C - Performance Testing due to the fact that specific testing conditions elsewhere in the permit will specify the timeline and procedures.
12. IDEM has removed Section C - Monitoring Methods. The conditions that require the monitoring or testing, if required, state what methods shall be used.
13. IDEM has revised Section C - Compliance Monitoring. The reference to recordkeeping has been removed due to the fact that other conditions already address recordkeeping. The voice of the condition has been change to clearly indicate that it is the Permittee that must follow the requirements of the condition.
14. DEM has revised Section C - Actions Related to Noncompliance Demonstrated by a Stack Test. The requirements to take response steps and minimize excess emissions have been removed because Section C - Response to Excursions or Exceedances already requires response steps related to exceedances and excess emissions minimization. The start of the timelines was switched from "the receipt of the test results" to "the date of the test." There was confusion if the "receipt" was by IDEM, the Permittee, or someone else. Since the start of the timelines has been moved up, the length of the timelines was increased. The new timelines require action within a comparable timeline; and the new timelines still ensure that the Permittee will return to compliance within a reasonable timeframe.
15. The voice of paragraph (b) of Section C - General Record Keeping Requirements has been change to clearly indicate that it is the Permittee that must follow the requirements of the paragraph.
16. IDEM has decided to simplify the referencing in Section C - Compliance with 40 CFR 82 and 326 IAC 22-1.

The permit has been revised as follows with deleted language as ~~strikeouts~~ and new language **bolded**:

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

B.7 Duty to Provide Information

- (a) The Permittee shall furnish to IDEM, OAQ, within a reasonable time, any information that IDEM, OAQ may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. ~~The submittal by the Permittee does require the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).~~ Upon request, the Permittee shall also furnish to IDEM, OAQ copies of records required to be kept by this permit.
- (b) For information furnished by the Permittee to IDEM, OAQ, the Permittee may include a claim of confidentiality in accordance with 326 IAC 17.1. When furnishing copies of requested records directly to U. S. EPA, the Permittee may assert a claim of confidentiality in accordance with 40 CFR 2, Subpart B.

B.8 ~~Reserved 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.10 Preventive Maintenance Plan [326 IAC 1-6-3]

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

The Permittee shall implement the PMPs.

- (b) **If required by specific condition(s) in Section D of this permit where no PMP was previously required, the Permittee shall prepare and maintain Preventive Maintenance Plans (PMPs) within ninety (90) days after issuance of this permit or ninety (90) days after initial start-up, whichever is later, including the following information on each facility:**
 - (1) **Identification of the individual(s) responsible for inspecting, maintaining, and repairing emission control devices;**

- (2) **A description of the items or conditions that will be inspected and the inspection schedule for said items or conditions; and**
- (3) **Identification and quantification of the replacement parts that will be maintained in inventory for quick replacement.**

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

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

The Permittee shall implement the PMPs.

- (c) A copy of the PMPs shall be submitted to IDEM, OAQ upon request and within a reasonable time, and shall be subject to review and approval by IDEM, OAQ. IDEM, OAQ may require the Permittee to revise its PMPs whenever lack of proper maintenance causes or is the primary contributor to an exceedance of any limitation on emissions 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).~~
- (d) To the extent the Permittee is required by 40 CFR Part 60/63 to have an Operation Maintenance, and Monitoring (OMM) Plan for a unit, such Plan is deemed to satisfy the PMP requirements of 326 IAC 1-6-3 for that unit.

B.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 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~~ **an affirmation that the statements in the application are true and complete** by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

Request for renewal shall be submitted to:

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

- (b) A timely renewal application is one that is:
 - (1) Submitted at least one hundred twenty (120) 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 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 takes final action on the renewal application, except that this protection shall cease to apply if, subsequent to the completeness determination, the Permittee fails to submit by the deadline specified, **pursuant to 326 IAC 2-6.1-4(b)**, in writing by IDEM, OAQ 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]

- (c) The Permittee shall notify the OAQ ~~within~~ **no later than** thirty (30) calendar days of implementing a notice-only change. [326 IAC 2-6.1-6(d)]

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

The application which shall be submitted by the Permittee does require ~~the certification an~~ **affirmation that the statements in the application are true and complete** 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 IDEM, OAQ ~~within~~ **no later than** thirty (30) calendar days of receipt of a billing.

C.2 Opacity [326 IAC 5-1]

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

C.5 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~~ **or in this permit. The Permittee shall not operate a refuse incinerator or refuse burning equipment except as provided in 326 IAC 9-1-2 or in this permit.**

C.6 Asbestos Abatement Projects [326 IAC 14-10] [326 IAC 18] [40 CFR 61, Subpart M]

- (d) The notice to be submitted shall include the information enumerated in 326 IAC 14-10-3(3).

All required notifications shall be submitted to:

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

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

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

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

~~no later than thirty-five (35) days prior to the intended test date. The protocol submitted by the Permittee does not require 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 not later than forty-five (45) days after the completion of the testing. An extension may be granted

by IDEM, OAQ if the Permittee submits to IDEM, OAQ a reasonable written explanation not later than five (5) days prior to the end of the initial forty-five (45) day period.

C.10 ~~Reserved Monitoring Methods [326 IAC 3] [40 CFR 60] [40 CFR 63]~~

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

C.12 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 ~~its~~ **these** response actions to IDEM, OAQ, ~~within no later than thirty (30) days of receipt of the test results~~ **seventy-five (75) days after the date of the test.** 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 no later than one hundred eighty (180) twenty (120) days of receipt of the original test results~~ **days after the date of the test.** Should the Permittee demonstrate to IDEM, OAQ that retesting in one hundred **eighty (180) 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).~~

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

- (b) Unless otherwise specified in this permit, **for all record keeping requirements not already legally required, the Permittee shall be allowed up to** ~~shall be implemented within~~ ninety (90) days **from the date** of permit issuance or ~~ninety (90) days~~ **the date** of initial start-up, whichever is later, **to begin such record keeping.**

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

- (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 on or before the date it is due.

- (c) ~~Reserved 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.

D.2.2 Record Keeping Requirements

- (b) ~~All records shall be maintained in accordance with Section C.14 - General Record Keeping Requirements of this permit~~ **contains the Permittee's obligations with regard to the records required by this condition.**

D.3.1 Record Keeping Requirements

- (b) ~~All records shall be maintained in accordance with Section C - General Record Keeping Requirements of this permit~~ **contains the Permittee's obligations with regard to the records required by this condition.**

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

**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:

All other conditions of the permit shall remain unchanged and in effect. Attached please find the entire revised permit.

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

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 Bruce Farrar, of my staff, at 317-234-5401 or 1-800-451-6027, and ask for extension 4-5401.

Sincerely,



Iryn Calilung, Section Chief
Permits Branch
Office of Air Quality

Attachments: Updated Permit and calculations

IC/BF

cc: File - Marion County
Marion County Health Department
U.S. EPA, Region V
Compliance and Enforcement Branch
Billing, Licensing and Training Section



INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

We Protect Hoosiers and Our Environment.

Mitchell E. Daniels Jr.
Governor

Thomas W. Easterly
Commissioner

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

MINOR SOURCE OPERATING PERMIT RENEWAL

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT OFFICE OF AIR QUALITY

**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: <i>Original signed by:</i> Kyle Walker, Deputy Director Department of Public Works	Issuance Date: August 22, 2008 Expiration Date: August 22, 2018

First Notice-Only Change No.: M097-27845-00015 issued on April 29, 2009

Second Notice-Only Change No.: M097-31683-00015	
Issued by:  Iryn Calilung, Section Chief Permits Branch Office of Air Quality	Issuance Date: May 3, 2012 Expiration Date: August 22, 2018

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SECTION A

SOURCE SUMMARY

This permit is based on information requested by the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ). The information describing the source contained in conditions A.1 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
General Source Phone Number:	317-481-5746
SIC Code:	3585 (Air-Conditioning and Warm Air Heating Equipment and Commercial and Industrial Refrigeration Equipment)
County Location:	Marion
Source Location Status:	Nonattainment for PM _{2.5} 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) Eight (8) 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), P-8 and P-9 (installed in 2011), 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) Six (6) Aqueous Detergent Parts Washer Systems, Emission Unit IDs W-1, W-2, W-3, W-4, W-5, and W-6, consisting of wash/rinse furnaces burning natural gas with total maximum capacity of 8.4 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, W-6 was installed in 2011.

Emissions are exhausted to the atmosphere through Stacks PE-15, PE-35, PE-37, PE-41, PE-45 and PE-49.

- (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) Eight (8) forced draft Cooling Towers, Emission Units IDs CT-1, CT-2, CT-3, and CT-4, constructed in 2006 and CT-5, CT-6, CT-7 and CT-8 constructed in 2011, 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 2,275 gallons per hour each; CT-3 has a maximum evaporative water recirculation rate of 236 gallons per hour; CT-4 has a maximum evaporative water recirculation rate of 1,020 gallons per hour; CT-5 has a maximum evaporative water recirculation rate of 1,704 gallons per hour; CT-6 has a maximum evaporative water recirculation rate of 379 gallons per hour; CT-7 has a maximum evaporative water recirculation rate of 1,800 gallons per hour; and CT-8 has a maximum evaporative water recirculation rate of 1,500 gallons per hour.

- (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 33.621 MMBtu/hr.
- (2) Twenty-four (24) Building 9 heaters/air make-up units, with total heat input capacity of 6.269 MMBtu/hr.
- (3) Four (4) Fire Water and R&D Associated Humidity Control Boilers, with total heat input capacity of 5.559 MMBtu/hr.
- (4) Two hundred and twenty-five (225) Production Line Test Stations, with total heat input capacity of 1.162 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, 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

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

B.5 Severability

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

B.8 Reserved

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 and Enforcement Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, IN 46204-2251
- (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 on or before the date it is due.

B.10 Preventive Maintenance Plan [326 IAC 1-6-3]

- (a) A Preventive Maintenance Plan meets the requirements of 326 IAC 1-6-3 if it includes, at a minimum:
 - (1) Identification of the individual(s) responsible for inspecting, maintaining, and repairing emission control devices;
 - (2) A description of the items or conditions that will be inspected and the inspection schedule for said items or conditions; and
 - (3) Identification and quantification of the replacement parts that will be maintained in inventory for quick replacement.

The Permittee shall implement the PMPs.

- (b) If required by specific condition(s) in Section D of this permit where no PMP was previously required, the Permittee shall prepare and maintain Preventive Maintenance Plans (PMPs) within ninety (90) days after issuance of this permit or ninety (90) days after initial start-up, whichever is later, including the following information on each facility:
 - (1) Identification of the individual(s) responsible for inspecting, maintaining, and repairing emission control devices;
 - (2) A description of the items or conditions that will be inspected and the inspection schedule for said items or conditions; and
 - (3) Identification and quantification of the replacement parts that will be maintained in inventory for quick replacement.

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

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

The Permittee shall implement the PMPs.

- (c) A copy of the PMPs shall be submitted to IDEM, OAQ upon request and within a reasonable time, and shall be subject to review and approval by IDEM, OAQ. IDEM, OAQ may require the Permittee to revise its PMPs whenever lack of proper maintenance causes or is the primary contributor to an exceedance of any limitation on emissions.
- (d) To the extent the Permittee is required by 40 CFR Part 60/63 to have an Operation Maintenance, and Monitoring (OMM) Plan for a unit, such Plan is deemed to satisfy the PMP requirements of 326 IAC 1-6-3 for that unit.

B.11 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 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 an affirmation that the statements in the application are true and complete by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

Request for renewal shall be submitted to:

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

- (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 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 takes final action on the renewal application, except that this protection shall cease to apply if, subsequent to the completeness determination, the Permittee fails to submit by the deadline specified pursuant to 326 IAC 2-6.1-4(b), in writing by IDEM, OAQ 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
Permit Administration and Support Section, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, IN 46204-2251

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 no later than 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, 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
Permit Administration and Support Section, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, IN 46204-2251

The application which shall be submitted by the Permittee does require an affirmation that the statements in the application are true and complete 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 IDEM, OAQ no later than thirty (30) calendar days of receipt of a billing.
- (b) The Permittee may call the following telephone numbers: 1-800-451-6207 or 317-233-4230 (ask for OAQ, Billing, Licensing, and Training Section), 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, 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 5-1-1 (Applicability) and 326 IAC 5-1-3 (Temporary Alternative Opacity Limitations), opacity shall meet the following, unless otherwise stated in this permit:

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

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

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

C.6 Asbestos Abatement Projects [326 IAC 14-10] [326 IAC 18] [40 CFR 61, Subpart M]

- (a) Notification requirements apply to each owner or operator. If the combined amount of regulated asbestos containing material (RACM) to be stripped, removed or disturbed is at least 260 linear feet on pipes or 160 square feet on other facility components, or at least thirty-five (35) cubic feet on all facility components, then the notification requirements of 326 IAC 14-10-3 are mandatory. All demolition projects require notification whether or not asbestos is present.
- (b) The Permittee shall ensure that a written notification is sent on a form provided by the Commissioner at least ten (10) working days before asbestos stripping or removal work or before demolition begins, per 326 IAC 14-10-3, and shall update such notice as necessary, including, but not limited to the following:
- (1) When the amount of affected asbestos containing material increases or decreases by at least twenty percent (20%); or
- (2) If there is a change in the following:
- (A) Asbestos removal or demolition start date;
- (B) Removal or demolition contractor; or
- (C) Waste disposal site.
- (c) The Permittee shall ensure that the notice is postmarked or delivered according to the guidelines set forth in 326 IAC 14-10-3(2).
- (d) The notice to be submitted shall include the information enumerated in 326 IAC 14-10-3(3).
- All required notifications shall be submitted to:
- Indiana Department of Environmental Management
Compliance and Enforcement Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, IN 46204-2251
- The notice shall include a signed certification from the owner or operator that the information provided in this notification is correct and that only Indiana licensed workers and project supervisors will be used to implement the asbestos removal project.
- (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.

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

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

no later than thirty-five (35) days prior to the intended test date.

- (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 not later than forty-five (45) days after the completion of the testing. An extension may be granted by IDEM, OAQ if the Permittee submits to IDEM, OAQ, a reasonable written explanation not later than five (5) days prior to the end of the initial forty-five (45) day period.

Compliance Requirements [326 IAC 2-1.1-11]

C.8 Compliance Requirements [326 IAC 2-1.1-11]

IDEM, OAQ 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 Reserved

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 submit a description of these response actions to IDEM, OAQ, no later than seventy-five (75) days after the date of the test.
- (b) A retest to demonstrate compliance shall be performed no later than one hundred eighty (180) days after the date of the test. Should the Permittee demonstrate to IDEM, OAQ that retesting in one hundred eighty (180) days is not practicable, IDEM, OAQ may extend the retesting deadline.
- (c) IDEM, OAQ reserves the authority to take any actions allowed under law in response to noncompliant stack tests.

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 makes a request for records to the Permittee, the Permittee shall furnish the records to the Commissioner within a reasonable time.
- (b) Unless otherwise specified in this permit, all record keeping requirements not already legally required shall be implemented within ninety (90) days of permit issuance.

C.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 and Enforcement Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, IN 46204-2251
- (b) Unless otherwise specified in this permit, for all record keeping requirements not already legally required, the Permittee shall be allowed up to ninety (90) days from the date of permit issuance or the date of initial start-up, whichever is later, to begin such record keeping.
- (c) Reserved.
- (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) Eight (8) 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), P-8 and P-9 (installed in 2011), 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.

(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 if the source proposes to modify any of the Emission Units IDs P-1, P-2, P-4, P-5, P-6, P-7, P-8 and P-9 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) Six (6) Aqueous Detergent Parts Washer Systems, Emission Unit IDs W-1, W-2, W-3, W-4, W-5, and W-6, consisting of wash/rinse furnaces burning natural gas with total maximum capacity of 8.4 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, W-6 was installed in 2011. Emissions are exhausted to the atmosphere through Stacks PE-15, PE-35, PE-37, PE-41, PE-45, and PE-49.

(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) Six (6) Aqueous Detergent Parts Washer Systems, Emission Unit IDs W-1, W-3, W-4, W-5, and W-6 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, W-5, and W-6 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.

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, W-5, and W-6. Records shall include purchase orders, invoices, and material safety data sheets (MSDS) necessary to verify the type, amount used and daily VOC emissions.
- (b) Section C - General Record Keeping Requirements contains the Permittee's obligations with regard to the records required by this condition.

SECTION D.3

FACILITY 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) Section C - General Record Keeping Requirements contains the Permittee's obligations with regard to the records required by this condition.

SECTION D.4

FACILITY OPERATION CONDITIONS

Emission Units Description:

(g) Natural gas fired heating units:

(3) Four (4) 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 four (4) 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
COMPLIANCE AND ENFORCEMENT BRANCH**

**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**

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:

**Appendix A: Emissions Calculations
Total Source Emissions Summary**

Company Name: Carrier Corporation
Address City IN Zip: 7310 West Morris Street, Indianapolis, IN 46206
MSOP NOC Number: 097-31683-00015
Pit ID: 097-00015
Reviewer: Bruce Farrar
Date: March 30, 2012

Emission Unit	Uncontrolled Emissions Tons per Year									
	PM	PM10	PM2.5	SO2	NOx	VOC	CO	GHG as CO2e	Total HAP	Single HAP
Fin Pressess (P-1 thru P-8)	-	-	-	-	-	82.20	-	-	-	-
Cooling Towers (CT-1 thru CT-8)	0.93	0.93	0.93	-	-	-	-	-	-	-
Autobrazer	1.18	1.18	1.18	-	-	-	-	-	-	-
Miscellaneous Production	-	-	-	-	-	8.41	-	-	0.77	0.56
Natural Gas Combustion	0.58	2.31	2.31	0.18	30.34	1.67	25.48	36,626	0.57	0.55
Parts Washers (W-1 thru W-6)	-	-	-	-	-	1.48	-	-	1.38	1.38
R & D Paint Booth	0.55	0.55	0.55	-	-	2.77	-	-	0.95	0.95
Emergency Generators	0.25	0.25	0.25	0.20	3.46	0.24	1.46	-	0.37	0.11
Soil Remediation System	-	-	-	-	-	0.03	-	-	1.61	1.61
total	3.50	5.23	5.23	0.38	33.79	96.81	26.94	36,626	5.64	

**Appendix A: Emissions Calculations
Fin Presses
VOC Emissions**

Company Name: Carrier Corporation
Address City IN Zip: 7310 West Morris Street, Indianapolis, IN 46206
MSOP NOC Number: 097-31683-00015
Plt ID: 097-00015
Reviewer: Bruce Farrar
Date: March 30, 2012

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 (gal/hr)	VOC Content (lb/gal)	PTE Basis		Maximum Potential Lube Use			Maximum Potential VOC			
	lb/hr	(gal/hr)			(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	
P-8	500	0.8	2.72	24.00	8760	19.2	584	7,008	2.18	52.2	19,062	9.53	
P-9	500	0.8	2.72	24.00	8760	19.2	584	7,008	2.18	52.2	19,062	9.53	
Totals:						165.60	5,037	60,444	18.77	450.43	164,408	82.20	

Methodology

PTE VOC (lbs/hr) = (gallons/hour) * (VOC lbs/gallon)

PTE VOC (tons/year) = (gallons/hour) * (VOC lbs/gallon) * (8760 hours/1 year) * (1 ton/2000 lbs)

**Appendix A: Emissions Calculations
Fin Presses
Cooling Towers**

Company Name: Carrier Corporation
Address City IN Zip: 7310 West Morris Street, Indianapolis, IN 46206
MSOP NOC Number: 097-31683-00015
Plt ID: 097-00015
Reviewer: Bruce Farrar
Date: March 30, 2012

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

Unit	Description	Maximum Cooling Tower Water Recirculation Rate (gal/hr)	Operating Hours (hr/yr)	Maximum Potential PM/PM10 Emissions		
				lb/hr	lb/yr	ton/yr
CT-1	East Cooling Tower #1	2275	8760	0.043	379	0.19
CT-2	East Cooling Tower #2	2275	8760	0.043	379	0.19
CT-3	West Cooling Tower #1	236	8760	0.004	39	0.02
CT-4	West Cooling Tower #2	1020	8760	0.019	170	0.08
CT-5	Bldg 9 - North Cooling Tower on expansion	1704	8760	0.032	284	0.14
CT-6	Bldg 9 - West Cooling Tower	379	8760	0.007	63	0.03
CT-7	Bldg 9 - LTS	1800	8760	0.034	300	0.15
CT-8	East Cooling Tower #3	1500	8760	0.029	250	0.12
Totals:				0.21	1862.30	0.93

PM10 Emission Factor from AP-42 13.4 (Particulate Emissions Factors for Wet Cooling Towers) Table 13.4-1 dated 01/1995.
 Assume PM10 = PM/PM2.5

Methodology

PM/PM10/PM2.5 Emissions (lbs/hr) = (water gallons/hour) * (PM10 lbs/1,000 gallons water)

PM/PM10/PM2.5 Emissions (tons/year) = (water gallons/hour) * (PM10 lbs/1,000 gallons water) * (8760 hours/1 year) * (1 ton/2000 lbs)

**Appendix A: Emissions Calculations
Autobrazer Gas Flux/ Braze Alloy
PM Emissions**

Company Name: Carrier Corporation
Address City IN Zip: 7310 West Morris Street, Indianapolis, IN 46206
MSOP NOC Number: 097-31683-00015
Plt ID: 097-00015
Reviewer: Bruce Farrar
Date: March 30, 2012

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) = Max Usage Rate (lb/hr) x Emission Factor (lb/1000lb or % by weight)
Emissions (lb/day) = Emissions (lb/hr) x 24 Hours of Operation (hr/day)
Emissions (tpy) = Emissions (lb/hr) x 8760 Hours of Operation (hr/yr) / 2000 lb/ton

**Appendix A: Emissions Calculations
Parts Washers
VOC and HAP Emissions**

Company Name: Carrier Corporation
Address City IN Zip: 7310 West Morris Street, Indianapolis, IN 46206
MSOP NOC Number: 097-31683-00015
Plt ID: 097-00015
Reviewer: Bruce Farrar
Date: March 30, 2012

Dept.	Cleaning Solution Manufacturer	Cleaning Solution Name	Actual Product Usage Rate Gallons per unit	Maximum Production Rate Units per hour	Potential Hourly Usage gallons	Potential Annual Usage gallons	Product Density lb/gal	VOC wt%	VOC lb/hr	VOC lb/year	Hazardous Air Pollutant (HAP) Content				
											Glycol Ethers		Diethanolamine		
											%	lbs/yr	%	lbs/yr	
Line 127 ACME-FAB Furnace Washer	W-1	Galaxy	Challenge 1219	0.0014	140	0.1960	1717	8.89	1.0%	0.017	153	0.00%	0.00	0.00%	0
Line 128 Ramco Furnace Washer	W-2	Galaxy	Challenge 1219	0.00047	147	0.0691	605	8.89	1.0%	0.006	54	0.00%	0.00	0.00%	0
Line 128 Hx Young and Bertke Furnace Washer	W-3	THIS WASHER ONLY USES HOT WATER AND IS NOT A VOC EMISSIONS SOURCE							0.0%	0.000	0	0.00%	0.00	0.00%	0.00
Line 164 CAE Ransohoff Fan Coil Washer	W-4	Oakite	3160 Aluminum Cleaner	0.00386	92	0.3551	3111	9.00	1.8%	0.058	504	1.80%	504	0.00%	0.00
Line 163 CAE Ransohoff Fan Coil Washer	W-5	Oakite	3160 Aluminum Cleaner	0.011	144	1.5840	13876	9.00	1.8%	0.257	2248	1.80%	2248	0.00%	0.00
Line A90 Parts Washer	W-6	The AO90 (W-6) does not use any solvent-based cleaner.													
TOTAL (lbs)										0.338	2958		2752		0
TOTAL (tons)										1.48			1.38		0.00

Methodology

VOC/HAP (lbs/hr) = (gallons/hour) * (lbs/gallon) * (% wt VOC or HAP)

VOC/HAP (lbs/yr) = (gallons/hour) * (lbs/gallon) * (% wt VOC or HAP) * (8760 hours/1 year) * (1 ton/2000 lbs)

Appendix A: Emissions Calculations
Miscellaneous Product Usage from Production Area
VOC and HAP Emissions

Company Name: Carrier Corporation
Address City IN Zip: 7310 West Morris Street, Indianapolis, IN 46206
MSOP NOC Number: 097-31683-00015
Plt ID: 097-00015
Reviewer: Bruce Farrar
Date: March 30, 2012

	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/ W	Solvent 142	1.33E-04	0.094	827.46	0.79	6.62	6.62	0.63	5477.41
Paint Touch-up and repair	Silver Sage Aerosol Paint (new gray)	1.19E-06	0.00085	7.45	1.05	8.76	3.99	0.0034	29.7
	Gray Mist Aerosol Paint (smoke gray)	1.19E-06	0.00085	7.45	0.76	6.34	2.75	0.0023	20.5
Plantwide Assembly	Vegetable Oil Aerosol Lubricant	1.12E-04	0.0795	696.15	0.92	7.67	1.36	0.108	946.0
Insulation repair adhesive	Hi-Tack Spray Adhesive	1.63E-04	0.1163	1,019	0.70	5.80	4.12	0.479	4193.0
Assembly and packaging	Bondmaster Glue 40-0880	4.92E-03	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	22.45
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	See Parts Washer worksheet for calculations							
Totals (lb/yr):			10.047	88,009				1.92	16,830
Total (ton/yr):								8.41	

Miscellaneous Product Usage from Production Area VOC and HAP Emissions continue

Department / Product Name	Hazardous Air Pollutant (HAP) Content											
	Xylene		MEK		Toluene		Ethylbenzene		Glycol Ethers		Diethanolamine	
	%	lbs/yr	%	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%	379.6
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												
Total (lb/yr):		23.39	6.881		1,119		0.307		2		379.6	
Total (ton/yr):		0.0117	0.0034		0.559		0.0002		0.001		0.190	

Pollutant	ton/yr
VOC	#REF!
Total HAP	0.765
Largest Single HAP	0.559

Appendix A: Emissions Calculations

R & D Paint Booth

VOC and HAP Emissions

Company Name: Carrier Corporation
Address City IN Zip: 7310 West Morris Street, Indianapolis, IN 46206
MSOP NOC Number: 097-31683-00015
Plt ID: 097-00015
Reviewer: Bruce Farrar
Date: March 30, 2012

Potential Emissions from R&D Paint Booth

Maximum Potential Throughput Capacity (units) 6 per day 2,190 per year

		Density	Maximum Gallons	Potential Daily Usage	Potential Annual Usage	Worst case VOC Content	VOC	VOC	Worst Case HAP (Unless Specified, assume Glycol Ether)		
Manufacturer	Product	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

		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
Product	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	

Appendix A: Emissions Calculations

Natural Gas Combustion Only

MM BTU/HR <100

Company Name: Carrier Corporation
Address City IN Zip: 7310 West Morris Street, Indianapolis, IN 46206
MSOP NOC Number: 097-31683-00015
Plt ID: 097-00015
Reviewer: Bruce Farrar
Date: March 30, 2012

Heat Input Capacity MMBtu/hr	HHV mmBtu mmscf	Potential Throughput MMCF/yr
---------------------------------	-----------------------	---------------------------------

69.3	1000	606.7
------	------	-------

Emission Factor in lb/MMCF	Pollutant						
	PM*	PM10*	direct PM2.5*	SO2	NOx 100 **see below	VOC	CO
Potential Emission in tons/yr	0.6	2.3	2.3	0.2	30.3	1.7	25.5

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

PM2.5 emission factor is filterable and condensable PM2.5 combined.

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

Methodology

All emission factors are based on normal firing.

MMBtu = 1,000,000 Btu

MMCF = 1,000,000 Cubic Feet of Gas

Emission Factors are from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03

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

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

See page 10 for HAPs emissions calculations.

**Appendix A: Emissions Calculations
 Natural Gas Combustion Only
 MM BTU/HR <100
 HAPs Emissions**

Company Name: Carrier Corporation
Address City IN Zip: 7310 West Morris Street, Indianapolis, IN 46206
MSOP NOC Number: 097-31683-00015
Plt ID: 097-00015
Reviewer: Bruce Farrar
Date: March 30, 2012

HAPs - Organics					
Emission Factor in lb/MMcf	Benzene 2.1E-03	Dichlorobenzene 1.2E-03	Formaldehyde 7.5E-02	Hexane 1.8E+00	Toluene 3.4E-03
Potential Emission in tons/yr	6.371E-04	3.640E-04	2.275E-02	5.461E-01	1.031E-03

HAPs - Metals					
Emission Factor in lb/MMcf	Lead 5.0E-04	Cadmium 1.1E-03	Chromium 1.4E-03	Manganese 3.8E-04	Nickel 2.1E-03
Potential Emission in tons/yr	1.517E-04	3.337E-04	4.247E-04	1.153E-04	6.371E-04

Methodology is the same as page 9.

The five highest organic and metal HAPs emission factors are provided above.
 Additional HAPs emission factors are available in AP-42, Chapter 1.4.
 See Page 11 for Greenhouse Gas calculations.

Appendix A: Emissions Calculations**Natural Gas Combustion Only****MM BTU/HR <100****Greenhouse Gas Emissions****Company Name: Carrier Corporation****Address City IN Zip: 7310 West Morris Street, Indianapolis, IN 46206****MSOP NOC Number: 097-31683-00015****Plt ID: 097-00015****Reviewer: Bruce Farrar****Date: March 30, 2012**

	Greenhouse Gas		
Emission Factor in lb/MMcf	CO2 120,000	CH4 2.3	N2O 2.2
Potential Emission in tons/yr	36,404	0.7	0.7
Summed Potential Emissions in tons/yr	36,405		
CO2e Total in tons/yr	36,626		

Methodology

The N2O Emission Factor for uncontrolled is 2.2. The N2O Emission Factor for low Nox burner is 0.64.

Emission Factors are from AP 42, Table 1.4-2 SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03.

Global Warming Potentials (GWP) from Table A-1 of 40 CFR Part 98 Subpart A.

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

CO2e (tons/yr) = CO2 Potential Emission ton/yr x CO2 GWP (1) + CH4 Potential Emission ton/yr x CH4 GWP (21) + N2O Potential Emission ton/yr x N2O GWP (310).

**Appendix A: Emissions Calculations
Emergency Generators**

Company Name: Carrier Corporation
Address City IN Zip: 7310 West Morris Street, Indianapolis, IN 46206
MSOP NOC Number: 097-31683-00015
Plt ID: 097-00015
Reviewer: Bruce Farrar
Date: March 30, 2012

Emergency Natural Gas IC Engine Generators

Rich Burn Natural Gas IC Engine emission factors

- (1) Onan Generator Set - 30 KW (45 HP)
- (1) Generac Generator Set - 60 KW (90 HP)

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

Note: Emergency generator emissions calculated based on 500 hr per year operation per unit

Two Natural-Gas-Fired Generators

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

Total Generator Capacity for Two Units:	90	kW/hr
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

Btu input/hp-hr	Max Hourly	0.945	MMBtu/hr fuel input	135	hp-hr output
	Max Dail	22.68	MMBtu/hr fuel input	3,240	hp-hr output
	Max Annual	472.5	MMBtu/hr fuel input	67,500	hp-hr output

Maximum hourly heat input:	0.945	MMBtu/hr
Maximum Hourly Natural Gas Usage:	945	scf/hr
Maximum Daily Natural Gas Usage:	22,680	scf/day
Maximum Annual Natural Gas Usage:	472,500	scf/yr

Pollutant	AP-42 Emission Maximum Projected Emissions **				
	lb/10^6 Btu	lb/hr	lb/yr	Ton/yr	
Criteria Pollutants					
PM (using PM10 factor)	0.194	0.183	91.71	0.0459	
PM10/PM2.5 filterable + condensable	0.194	0.183	91.71	0.0459	
SO2	5.88E-04	0.001	0.28	1.39E-04	
NOx	2.27	2.145	1072.58	0.5363	
VOC (using larger TOC factor)	3.58E-02	0.034	16.92	0.0085	
CO	3.51	3.317	1658.48	0.8292	
HAPs					
1,1,2,2-tetrachloroethane	2.53E-05	0.000	0.01	5.98E-06	5.98E-06
1,3-Butadiene	6.63E-04	0.001	0.31	1.57E-04	1.57E-04
Acetaldehyde	2.79E-03	0.003	1.32	6.59E-04	6.59E-04
Acrolein	2.63E-03	0.002	1.24	6.21E-04	6.21E-04
Benzene	1.58E-03	0.001	0.75	3.73E-04	
Formaldehyde	2.05E-02	0.019	9.69	4.84E-03	
POM (AP-42 = PAH)	1.41E-04	0.000	0.07	3.33E-05	3.33E-05
Toluene	5.58E-04	0.001	0.26	1.32E-04	
Xylenes	1.95E-04	0.000	0.09	4.61E-05	
Methanol	2.58E-03	0.002	1.22	6.10E-04	6.10E-04
Methylene Chloride	4.12E-05	0.000	0.02	9.73E-06	9.73E-06
Other Trace HAPs **	2.35E-04	0.000	0.11	5.54E-05	5.54E-05
			Total HAPs	7.55E-03	
This unit only runs in the event of a power outage or in order to perform preventative			Other Combustion HAPs****	2.15E-03	

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

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

*** Other trace HAPs are summed in attached table (HAPs at detection limit)

**** Other combustion HAPs are HAPs that only occur at the generators and are summed for the plantwide summary tables

Other Trace HAPs - AP-42 Table 3.2.3		
1,1,2-Trichloroethane	<1.53 E-05	1.530E-05
1,3-Dichloropropane	<1.27 E-05	1.270E-05
Carbon Tetrachloride	<1.77 E-05	1.770E-05
Chlorobenzene	<1.29 E-05	1.290E-05
Chloroform	<1.37 E-05	1.370E-05
Ethylbenzene	<2.48 E-05	2.480E-05
Ethylene Dibromide	<2.13 E-05	2.130E-05
Naphthalene	<9.71 E-05	9.710E-05
Styrene	<1.19 E-05	1.190E-05
Vinyl Chloride	<7.18 E-06	7.180E-06
	total	2.35E-04

One Diesel-Fired Generators

Diesel IC Engine Generators emission factors

(1) Caterpillar 3306 Generator Set - AP-42 Section 3.3,(10/96)

Generator Capacity:	250	kW/hr
Max Power Output of Nat Gas IC Engines:	377	hp
Brake Specific Fuel Combustion factor:	7,000	Btu/hp-hr*
Average Duration of Engine Test:	60	min/engine
Maximum Engine Tests per hour:	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 Nat Gas fuel:	137,000	Btu/gallon

Btu input/hp-hr	Max Hourly	2.639	MMBtu/hr fuel input	377	hp-hr output
	Max Daily	63.336	MMBtu/hr fuel input	9,048	hp-hr output
	Max Annual	1319.5	MMBtu/hr fuel input	188,500	hp-hr output

Maximum hourly heat input:	2.639	MMBtu/hr
Maximum Hourly Diesel Fuel Usage:	19.3	gallons/hr
Maximum Daily Diesel Fuel Usage:	462	gallons/day
Maximum Annual Diesel Fuel Usage:	9,631	gallons/yr

Pollutant	AP-42 Emission Maximum Projected Emissions **				
	lb/hp-hr	lb/hr	lb/yr	Ton/yr	
Criteria Pollutants					
PM (using PM10 factor)	0.0022	0.829	414.70	0.207	
PM10/PM2.5	0.0022	0.829	414.70	0.207	
SO2	0.0021	0.792	395.85	0.198	
NOx	0.0310	11.687	5843.50	2.922	
VOC (using larger TOC factor sum)	0.0025	0.943	471.25	0.236	
CO	0.0067	2.526	1262.95	0.631	
HAPs					
Acetaldehyde	7.67E-04	0.289	144.58	7.23E-02	7.23E-02
Acrolein	9.25E-05	0.035	17.44	8.72E-03	8.72E-03
Benzene	9.33E-04	0.352	175.87	8.79E-02	
Formaldehyde	1.18E-03	0.445	222.43	1.11E-01	
POM (AP-42 = PAH)	1.68E-04	0.063	31.67	1.58E-02	1.58E-02
Toluene	4.09E-04	0.154	77.10	3.85E-02	
Xylenes	2.85E-04	0.107	53.72	2.69E-02	
1,3-Butadiene	3.91E-05	0.015	7.37	3.69E-03	3.69E-03
			Total HAPs	0.36509	
			Other Combustion HAPs****		1.01E-01

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

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

**** Other combustion HAPS are HAPS that only occur at the generators and are summed for the plantwide summary tables

**Appendix A: Emissions Calculations
Soil Remediation System
Soil Vapor Extraction System (SVE-1)
Volatile Organic Compounds (HAPs)**

Company Name: Carrier Corporation
Address City IN Zip: 7310 West Morris Street, Indianapolis, IN 46206
MSOP NOC Number: 097-31683-00015
Plt ID: 097-00015
Reviewer: Bruce Farrar
Date: March 30, 2012

The potential to emit (PTE) of Volatile Organic Compounds (VOCs) is calculated for the soil vapor extraction (SVE) remediation system exhaust as follows:

$$PTE \text{ (tons/yr)} = \frac{(C) * (MW) * (Q) * (P) * (28.317 \text{ L/cf}) * (60 \text{ min/hr}) * (8760 \text{ hr/yr})}{(R) * (T) * (1E+06 \text{ L/million L}) * (453.59 \text{ g/lb}) * (2000 \text{ lb/ton})}$$

where:

PTE = Potential to Emit pollutant from the SVE remediation system (tons/yr)
 C = Concentration of pollutant in SVE remediation system inlet air in parts per million by volume (ppmv)*
 MW = Molecular Weight in g/mol of pollutant
 Q = SVE air flow rate in cubic feet per minute (cfm)
 R = Universal Gas Constant (0.082058 L-atm/mol-K)
 T = Temperature (in degrees Kelvin) (assumed 68 degrees Fahrenheit = 20 degrees Celsius = 293.15 K)
 P = Atmospheric pressure (assumed 1 atm)

* Pollutant concentrations provided by the source

C =	3.1	ppmv	136.0	ppmv
MW =	131.4	g/mol (VOC)	165.8	g/mol (PCE)
Q =	100.0	Q (cfm)	100.0	Q (cfm)
R =	0.082058	L-atm/mol-K	0.082058	L-atm/mol-K
T =	68.0	oF	68.0	oF
T =	20.0	oC	20.0	oC
T =	293.15	oK	293.15	oK
P =	1	atm	1	atm

PTE of VOC = 0.03 ton/yr

PTE of HAP (PCE)* = 1.54 ton/yr

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.

**Appendix A: Emissions Calculations
Groundwater Remediation System
Air Stripper System (AS-1)
Volatile Organic Compounds (VOCs)**

**Company Name: Carrier Corporation
Address City IN Zip: 7310 West Morris Street, Indianapolis, IN 46206
MSOP NOC Number: 097-31683-00015
Pit ID: 097-00015
Reviewer: Bruce Farrar
Date: March 30, 2012**

The potential to emit (PTE) of PCE is calculated for the groundwater remediation system exhaust as follows:

$$\text{PTE (tons/yr)} = \frac{[\text{C (ug/L)}] * [\text{Q (liter/min)}] * [60 \text{ min/hr}] * [8760 \text{ hr/yr}]}{[1\text{E}+06 \text{ ug/g}] * [453.59 \text{ g/lb}] * [2000 \text{ lb/ton}]}$$

where:

PTE = Potential to Emit PCE from the remediation system exhaust (tons/yr)
C = Groundwater PCE concentration in micrograms per liter (ug/L)*
Q = Groundwater extraction flow rate in gallons per minute (gal/min)

* Pollutant concentrations provided by the source

C = 6000.0 ug/L
Q = 20.0 liters/min

PTE of PCE = 0.07 tons/yr

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.



INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

We Protect Hoosiers and Our Environment.

Mitchell E. Daniels Jr.
Governor

Thomas W. Easterly
Commissioner

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

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

TO: Jennifer Doyle
Carrier Corporation
7310 W Morris St
Indianapolis, IN 46231

DATE: May 3, 2012

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

SUBJECT: Final Decision
MSOP - Notice-Only Change
097 - 31683 - 00015

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

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

A copy of the final decision and supporting materials has also been sent via standard mail to:
Jean-Francois Brossoit, Plant Mgr
Kaiser Baig AECOM
OAQ Permits Branch Interested Parties List

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

Final Applicant Cover letter.dot 11/30/07

Mail Code 61-53

IDEM Staff	LPOGOST 5/3/2012 Carrier Corporation 097 - 31683 - 00015 final)		Type of Mail: CERTIFICATE OF MAILING ONLY	AFFIX STAMP HERE IF USED AS CERTIFICATE OF MAILING
Name and address of Sender		Indiana Department of Environmental Management Office of Air Quality – Permits Branch 100 N. Senate Indianapolis, IN 46204		

Line	Article Number	Name, Address, Street and Post Office Address	Postage	Handing Charges	Act. Value (If Registered)	Insured Value	Due Send if COD	R.R. Fee	S.D. Fee	S.H. Fee	Rest. Del. Fee
											Remarks
1		Jennifer Doyle Carrier Corporation 7310 W Morris St Indianapolis IN 46231 (Source CAATS) Via confirmed delivery									
2		Jean-Francois Brossoit Plant Mgr Carrier Corporation 7310 W Morris St Indianapolis IN 46231 (RO CAATS)									
3		Marion County Health Department 3838 N, Rural St Indianapolis IN 46205-2930 (Health Department)									
4		Indianapolis City Council and Mayors Office 200 East Washington Street, Room E Indianapolis IN 46204 (Local Official)									
5		Marion County Commissioners 200 E. Washington St. City County Bldg., Suite 801 Indianapolis IN 46204 (Local Official)									
6		Qaiser Baig AECOM 13955 Farmington Road Livonia MI 48154 (Consultant)									
7		Matt Mosier Office of Sustainability 1200 S Madison Ave #200 Indianapolis IN 46225 (Local Official)									
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