

217/782-2113

FEDERALLY ENFORCEABLE STATE OPERATING PERMIT

PERMITTEE

Revcor, Inc.
Attn: Mr. Rich Woodrich
251 Edwards Avenue
Carpentersville, Illinois 60110

Application No.: 04070026 I.D. No.: 089020ABI
Applicant's Designation: Date Received: July 13, 2004
Subject: Metal Fans and Wheels for HVACs
Date Issued: Expiration Date:
Location: 251 Edwards Avenue, Carpentersville, Kane County, 60110

This permit is hereby granted to the above-designated Permittee to OPERATE emission unit(s) and/or air pollution control equipment consisting of:

A Soil Vapor Extraction (SVE) Unit
16 Screw Machines
74 Punch Presses
A Powder Coating Operation with filters and curing oven
A 5 mmBtu/hour Natural Gas-fired Boiler

pursuant to the above-referenced application. This permit is subject to standard conditions attached hereto and the following special condition(s):

- 1a. This federally enforceable state operating permit is issued:
- i. To limit the emissions of air pollutants from the source to less than major source thresholds (i.e., 100 tons per year of volatile organic material (VOM), 25 tons per year of combined hazardous air pollutants (HAPs), and 10 tons per year of a single HAP). As a result the source is excluded from the requirement to obtain a Clean Air Act Permit Program (CAAPP) permit. The maximum emissions of this source, as limited by the conditions of this permit, are described in Attachment A.
 - ii. This permit is issued based upon the source not being subject to the requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAP) for Site Remediation, 40 CFR 63 Subpart GGGGG. This is consequence of the federally enforceable production and operating limitations, which restrict a potential to emit to less than 10 tons/year for any individual Hazardous Air Pollutant (HAP), and 25 tons/year of any combination of such HAPs.
 - iii. To limit the emissions of volatile organic material from the source to less than 25 tons/year. As a result, the source is excluded from the requirements of 35 Ill. Adm. Code Part 205, Emission Reduction Market System. The maximum emissions of this source as limited by the conditions of this permit are described in Attachment A.

- iv. This permit is issued based upon the plant not being subject to the requirements of 35 Ill. Adm. Code Part 218 Subpart PP (Miscellaneous Fabricated Product Manufacturing Processes) and 35 Ill. Adm. Code Part 218 Subpart TT (Other Emission Units). This is consequence of the federally enforceable production and operating limitations, which restrict a potential to emit to less than 25 tons per year.
 - b. Prior to issuance, a draft of this permit has undergone a public notice and comment period.
 - c. This permit supersedes all operating permits issued for this location.
- 2a. No person shall cause or allow the emission of smoke or other particulate matter, with an opacity greater than 30 percent, into the atmosphere from any emission unit other than those emission units subject to the requirements of 35 Ill. Adm. Code 212.122, pursuant to 35 Ill. Adm. Code 212.123(a), except as allowed by 35 Ill. Adm. Code 212.123(b) and 212.124.
- b. No person shall cause or allow any visible emissions of fugitive particulate matter from any process, including any material handling or storage activity beyond the property line of the emission source unless the wind speed is greater than 40.2 kilometers per hour (25 miles per hour), pursuant to 35 Ill. Adm. Code 212.301 and 212.314.
 - c. Pursuant to 35 Ill. Adm. Code 212.321(a), no person shall cause or allow the emission of particulate matter into the atmosphere in any one hour period from any new process emission unit which, either alone or in combination with the emission of particulate matter from all other similar process emission units for which construction or modification commenced on or after April 14, 1972, at a source or premises, exceeds the allowable emission rates specified in 35 Ill. Adm. Code 212.321(c).
- 3a. Pursuant to 35 Ill. Adm. Code 218.204(j)(4)(B), no owner or operator of a coating line shall apply at any time any coating in which the VOM content exceeds the following emission limitations for the specified coating. The following emission limitations are expressed in units of VOM per volume of coating (minus water and any compounds which are specifically exempted from the definition of VOM) as applied at each coating applicator, except where noted. Compounds which are specifically exempted from the definition of VOM should be treated as water for the purpose of calculating the "less water" part of the coating composition. The emission limitations are as follows:
- | | | |
|--|------|--------|
| Miscellaneous Metal Parts and Products Coating | kg/l | lb/gal |
| All other coatings - Baked | 0.34 | (2.8) |
- b. Exemptions for all coating categories except wood furniture coating. The limitations of 35 Ill. Adm. Code 218 Subpart F shall not apply to coating lines within a source, that otherwise would be subject to the

same subsection of 35 Ill. Adm. Code 218.204 (because they belong to the same coating category, e.g. can coating), provided that combined actual emissions of VOM from all lines at the source subject to that subsection never exceed 6.8 kg/day [15 lbs/day] before the application of capture systems and control devices. (For example, can coating lines within a source would not be subject to the limitations of 35 Ill. Adm. Code 218.204 (b) if the combined actual emissions of VOM from the can coating lines never exceed 6.8 kg/day [15 lbs/day] before the application of capture systems and control devices.) Volatile organic material emissions from heavy off-highway vehicle products coating lines must be combined with VOM emissions from miscellaneous metal parts and products coating lines to determine applicability. Any owner or operator of a coating source shall comply with the applicable coating analysis test methods and procedures specified in 35 Ill. Adm. Code 218.105(a) and the recordkeeping and reporting requirements specified in 35 Ill. Adm. Code 218.211(a) if total VOM emissions from the subject coating lines are always less than or equal to 6.8 kg/day [15 lbs/day] before the application of capture systems and control devices and, therefore, are not subject to the limitations of 35 Ill. Adm. Code 218.204. Once a category of coating lines at a source is subject to the limitations in 35 Ill. Adm. Code 218.204 the coating lines are always subject to the limitations in 35 Ill. Adm. Code 218.204, pursuant to 35 Ill. Adm. Code 218.208(a).

- c. Pursuant to 35 Ill. Adm. Code 218.301, no person shall cause or allow the discharge of more than 3.6 kg/hour (8 lbs/hour) of organic material into the atmosphere from any emission unit, except as provided in 35 Ill. Adm. Code 218.302, 218.303, 218.304 and the following exception: If no odor nuisance exists the limitation of 35 Ill. Adm. Code 218 Subpart G shall apply only to photochemically reactive material.
- d. In the event that the operation of this source results in an odor nuisance, the Permittee shall take appropriate and necessary actions to minimize odors, including but not limited to, changes in raw material or installation of controls, in order to eliminate the nuisance.
- 4. This permit is issued based on no material or clean-up solvents used at the source containing any hazardous air pollutants (HAP).
- 5a. Emissions and operation of the Soil Vapor Extraction Unit shall not exceed the following limits:

Exhaust Total Contaminant Concentration (ppmv)	Maximum Design Exhaust Flow Rate (dscfm)	VOM/HAP Emissions		
		(Lbs/Hr)	(Tons/Mo)	(Tons/Yr)
300	120	0.73	0.32	3.2

- i. These limits are based on maximum measured contaminant concentrations, vapor flow rate, highest molecular weight of 131.4 lb/lb-mole (trichloroethene) and continuous operation

(8,760 hours/year). Note that there is a "nested" limit on the emissions of the combination of HAPs as a result of the limit on VOM emissions. The HAPs emitted at this source have been determined to be VOMs and therefore limiting VOM emissions also limits HAP emissions.

- ii. The above limitations were established in Permit 04120007, pursuant to 35 Ill. Adm. Code Part 203. These limits ensure that the construction and/or modification addressed in the aforementioned permit does not constitute a new major source or major modification pursuant to Title I of the Clean Air Act, specifically 35 Ill. Adm. Code Part 203.

- b. Compliance with the limits in Condition 5(a) are based on the following equation:

$$\text{Emissions (tpy)} \left[\frac{\text{Exhaust Total Contaminant Concentration (ppmv)} \times 120 \text{ dscfm (Max. Design Exhaust Flowrate from Application)} \times 131.4 \text{ lb/lb - Mole} \times 60 \text{ min/hr}}{387 \text{ cu ft/lb - Mole}} \right] \times \frac{\text{Hours Operated}}{2000} \div \frac{\#}{\text{Ton}}$$

- 6a. Emissions and operation of equipment shall not exceed the following limits:

<u>Equipment</u>	<u>VOM Usage and Emissions</u>	
	<u>(Tons/Mo)</u>	<u>(Tons/Yr)</u>
16 Screw Machines	0.07	0.7
74 Punch Presses	2.00	20.3

- i. These limits are based on the maximum material VOM usage, the maximum material VOM content and the complete volatilization of the VOM contained in the materials.
- ii. The above limitations contain revisions to previously issued Permit 96090081. The source has requested that the Illinois EPA establish conditions in this permit that allow various refinements from the conditions of this aforementioned permit, consistent with the information provided in the FESOP application. The source has requested these revisions and has addressed the applicability and compliance of Title I of the Clean Air Act, specifically 35 Ill. Adm. Code Part 203, Major Stationary Sources Construction and Modification. These limits continue to ensure that the construction and/or modification addressed in this permit does not constitute a new major source or major modification pursuant to these rules. These limits are the primary enforcement mechanism for the equipment and

activities permitted in this permit and the information in the FESOP application contains the most current and accurate information for the source. Specifically, the material usage and the resulting VOM emissions associated with the punch presses have been increased from 1.51 tons/year to 20.3 tons/year.

- b. Emissions and operation of all natural gas combustion equipment shall not exceed the following limits:

Total Max. Firing Rate (mmBtu/Hr)	Pollutant	Emission Factors (Lbs/mmBtu)	Emissions	
			(Tons/Mo)	(Tons/Yr)
23	NO _x	0.098	1.00	9.9
	CO	0.083	0.84	8.4
	PM	0.0075	0.08	0.8
	VOM	0.0054	0.05	0.5

These limits are based on maximum design firing rates, continuous operation (8,760 hours/year), standard AP-42 emission factors for natural gas combustion from AP42, Tables 1.4-1 and 1.4-2, and a conversion factor of 1,020 mmBtu/mmScf.

- c. This permit is issued based on negligible emissions of particulate matter and VOM from the powder coating operation with filters and curing oven. For this purpose, emissions of PM shall not exceed nominal rates of 0.1 lb/hour and 0.44 tons/year, and emissions of VOM shall not exceed 0.1 lb/hour and 0.44 tons/year.
- 7. The emissions of Hazardous Air Pollutants (HAP) as listed in Section 112(b) of the Clean Air Act shall be less than 10 tons/year of any single HAP and 25 tons/year of any combination of such HAPs. As a result of this condition, this permit is issued based on the emissions of all HAPs from this source not triggering the requirements to obtain a Clean Air Act Permit Program (CAAPP) Permit.
- 8. Compliance with the annual limits of this permit shall be determined on a monthly basis from the sum of the data for the current month plus the preceding 11 months (running 12 month total).
- 9a. Pursuant to 35 Ill. Adm. Code 212.107, 212.109, and 212.110, testing for particulate matter emissions shall be performed as follows:
 - i. For both fugitive and nonfugitive particulate matter emissions, a determination as to the presence or absence of visible emissions from emission units shall be conducted in accordance with Method 22, 40 CFR part 60, Appendix A, incorporated by reference in 35 Ill. Adm. Code 212.113, except that the length of the observing period shall be at the discretion of the observer, but not less than one minute. This Condition shall not apply to 35 Ill. Adm. Code 212.301, pursuant to 35 Ill. Adm. Code 212.107.

- ii. Except as otherwise provided in 35 Ill. Adm. Code Part 212, and except for the methods of data reduction when applied to 35 Ill. Adm. Code 212.122 and 212.123, measurements of opacity shall be conducted in accordance with Method 9, 40 CFR Part 60, Appendix A, and the procedures in 40 CFR 60.675(c) and (d), if applicable, incorporated by reference in 35 Ill. Adm. Code 212.113, except that for roadways and parking areas the number of readings required for each vehicle pass will be three taken at 5-second intervals. The first reading shall be at the point of maximum opacity and second and third readings shall be made at the same point, the observer standing at right angles to the plume at least 15 feet away from the plume and observing 4 feet above the surface of the roadway or parking area. After four vehicles have passed, the 12 readings will be averaged, pursuant to 35 Ill. Adm. Code 212.109.
 - iii. Measurement of particulate matter emissions from stationary emission units subject to 35 Ill. Adm. Code Part 212 shall be conducted in accordance with 40 CFR part 60, Appendix A, Methods 5, 5A, 5D, or 5E, pursuant to 35 Ill. Adm. Code 212.110(a).
 - iv. The volumetric flow rate and gas velocity shall be determined in accordance with 40 CFR part 60, Appendix A, Methods 1, 1A, 2, 2A, 2C, 2D, 3, and 4, pursuant to 35 Ill. Adm. Code 212.110(b).
 - v. Upon a written notification by the Illinois EPA, the owner or operator of a particulate matter emission unit subject to 35 Ill. Adm. Code Part 212 shall conduct the applicable testing for particulate matter emissions, opacity, or visible emissions at such person's own expense, to demonstrate compliance. Such test results shall be submitted to the Illinois EPA within thirty (30) days after conducting the test unless an alternative time for submittal is agreed to by the Illinois EPA, pursuant to 35 Ill. Adm. Code 212.110(c).
- b. Testing required by Condition 9(a) shall be performed by a qualified independent testing service.
- 10. Pursuant to 35 Ill. Adm. Code 218.211(a), the VOM content of each coating and the efficiency of each capture system and control device shall be determined by the applicable test methods and procedures specified in 35 Ill. Adm. Code 218.105 to establish the records required under 35 Ill. Adm. Code 218.211.
 - 11. The Permittee shall, in accordance with the manufacturer(s) and/or vendor(s) recommendations, perform periodic inspections and maintenance on the equipment covered under this permit such that the equipment be kept in proper working condition and not cause a violation of the Environmental Protection Act or regulations promulgated therein.
 - 12a. Pursuant to 40 CFR 63.10(b)(3), if an owner or operator determines that his or her stationary source that emits (or has the potential to emit,

without considering controls) one or more hazardous air pollutants regulated by any standard established pursuant to section 112(d) or (f) of the Clean Air Act, and that stationary source is in the source category regulated by the relevant standard, but that source is not subject to the relevant standard (or other requirement established under 40 CFR Part 63) because of limitations on the source's potential to emit or an exclusion, the owner or operator must keep a record of the applicability determination on site at the source for a period of 5 years after the determination, or until the source changes its operations to become an affected source, whichever comes first. The record of the applicability determination must be signed by the person making the determination and include an analysis (or other information) that demonstrates why the owner or operator believes the source is unaffected (e.g., because the source is an area source). The analysis (or other information) must be sufficiently detailed to allow the USEPA and/or Illinois EPA to make a finding about the source's applicability status with regard to the relevant standard or other requirement. If relevant, the analysis must be performed in accordance with requirements established in relevant subparts of 40 CFR Part 63 for this purpose for particular categories of stationary sources. If relevant, the analysis should be performed in accordance with USEPA guidance materials published to assist sources in making applicability determinations under Section 112 of the Clean Air Act, if any. The requirements to determine applicability of a standard under 40 CFR 63.1(b)(3) and to record the results of that determination under 40 CFR 63.10(b)(3) shall not by themselves create an obligation for the owner or operator to obtain a Title V permit.

- b. Pursuant to 35 Ill. Adm. Code 212.110(e), the owner or operator of an emission unit subject to 35 Ill. Adm. Code Part 212 shall retain records of all tests which are performed. These records shall be retained for at least three (3) years after the date a test is performed.
- c. Pursuant to 35 Ill. Adm. Code 218.211(b)(3), any owner or operator of a coating line which is exempted from the limitations of 35 Ill. Adm. Code 218.204 because of 35 Ill. Adm. Code 218.208(a) shall collect and record all of the following information each day for each coating line and maintain the information at the source for a period of three years:
 - i. The name and identification number of each coating as applied on each coating line; and
 - ii. The weight of VOM per volume and the volume of each coating (minus water and any compounds which are specifically exempted from the definition of VOM) as applied each day on each coating line.
- d. Pursuant to 35 IAC 218.211(c)(2), any owner or operator of a coating line subject to the limitations of 35 Ill. Adm. Code 218.204 of and complying by means of 35 Ill. Adm. Code 218.204 shall collect and

record following information each day for each coating line and maintain the information at the source for a period of three years:

- i. The name and identification number of each coating as applied on the coating lines.
 - ii. The weight of VOM per volume of each coating (minus water and any compounds which are specifically exempted from the definition of VOM) as applied each day on the coating lines.
- e. The Permittee shall maintain records of the following items so as to demonstrate compliance with the conditions of this permit:
- i. Records addressing use of good operating practices for the powder coating booth filters:
 - A. Records for periodic inspection of the emission sources with date, individual performing the inspection, and nature of inspection; and
 - B. Records for prompt repair of defects, with identification and description of defect, effect on emissions, date identified, date repaired, and nature of repair.
 - ii. Measured exhaust total contaminant concentration (ppmv) in exhaust air flow samples of the SVE Unit. These samples and measurements shall be taken at start-up, twice/day for first 3 days, and once/month thereafter;
 - iii. Exhaust air flow rate (dscfm) of the SVE Unit at start-up, twice/day for first 3 days, and once/month thereafter;
 - iv. Usage of all VOM and HAP containing materials (tons/month, tons/year);
 - v. VOM & HAP contents of all materials (coatings, clean-up solvents, lubricants, etc) used at the source;
 - vi. Natural gas usage of the source (mmscf/month and mmscf/year); and
 - vii. Monthly and annual emissions of CO, NO_x, PM, PM₁₀, SO₂, VOM and/or HAPS with supporting calculations (tons/month and tons/year).
13. All records and logs required by this permit shall be retained at a readily accessible location at the source for at least five (5) years from the date of entry and shall be made available for inspection and copying by the Illinois EPA or USEPA upon request. Any records retained in an electronic format (e.g., computer) shall be capable of being retrieved and printed on paper during normal source office hours so as to be able to respond to an Illinois EPA or USEPA request for records during the course of a source inspection.

- 14a. Pursuant to 35 Ill. Adm. Code 212.110(d), a person planning to conduct testing for particulate matter emissions to demonstrate compliance shall give written notice to the Illinois EPA of that intent. Such notification shall be given at least thirty (30) days prior to the initiation of the test unless a shorter period is agreed to by the Illinois EPA. Such notification shall state the specific test methods from 35 Ill. Adm. Code 212.110 that will be used.
 - b. Pursuant to 35 Ill. Adm. Code 218.211(b)(5), any owner or operator of a coating line which is exempted from the limitations of 35 Ill. Adm. Code 218.204 because of because of 35 Ill. Adm. Code 218.208(a) shall notify the Illinois EPA of any record showing that total VOM emissions from the coating line or group of coating lines exceed 6.8 kg (15 lbs) in any day before the application of capture systems and control devices by sending a copy of such record to the Illinois EPA within 30 days after the exceedance occurs.
 - c. Pursuant to 35 Ill. Adm. Code 218.211(c)(3), any owner or operator of a coating line subject to the limitations of 35 Ill. Adm. Code 218.204 of and complying by means of 35 Ill. Adm. Code 218.204 shall notify the Illinois EPA in the following instances:
 - i. Any record showing violation of 35 Ill. Adm. Code 218.204 shall be reported by sending a copy of such record to the Illinois EPA within 30 days following the occurrence of the violation.
 - ii. At least 30 calendar days before changing the method of compliance from 35 Ill. Adm. Code 218.204 to 35 Ill. Adm. Code 218.205 or 35 Ill. Adm. Code 218.207, the owner or operator shall comply with all requirements of 35 Ill. Adm. Code 218.211(d)(1) or (e)(1), respectively. Upon changing the method of compliance from 35 Ill. Adm. Code 218.204 to 35 Ill. Adm. Code 218.205 or 35 Ill. Adm. Code 218.207, the owner or operator shall comply with all requirements of 35 Ill. Adm. Code 218.211(d) or (e), respectively.
 - d. If there is an exceedance of or a deviation from the requirements of this permit as determined by the records required by this permit, the Permittee shall submit a report to the Illinois EPA's Compliance Section in Springfield, Illinois within 30 days after the exceedance or deviation. The report shall include the emissions released in accordance with the recordkeeping requirements, a copy of the relevant records, and a description of the exceedance or deviation and efforts to reduce emissions and future occurrences.
15. Two (2) copies of required reports and notifications shall be sent to:

Illinois Environmental Protection Agency
Division of Air Pollution Control
Compliance Section (#40)
P.O. Box 19276
Springfield, Illinois 62794-9276

and one (1) copy shall be sent to the Illinois EPA's regional office at the following address unless otherwise indicated:

Illinois Environmental Protection Agency
Division of Air Pollution Control
9511 W. Harrison
Des Plaines, Illinois 60016

16. The issuance of this permit does not relieve the Permittee of the responsibility of complying with the applicable provisions of the State of Illinois Rules and Regulations, Title 35: Subtitle C, Water Pollution Control, Chapter 1. The Permittee may need to obtain a permit from the Division of Water Pollution Control for operation of the wastewater and discharge tributary.

It should be noted that issuance of this permit does not relieve the Permittee from compliance with the applicable portions of 35 Ill. Adm. Code Part 731 Underground Storage Tanks or the permit requirements of Section 21 and 39 of the Environmental Protection Act with respect to a waste management operation, nor does it constitute a release from further responsibility for preventive or corrective action as defined under Section 4(y) of the Environmental Protection Act. Pursuant to 35 Ill. Adm. Code Part 731, approval may be required from the Bureau of Land - Leaking Underground Storage Tank Section (217/782-6762) prior to the installation of this equipment.

If you have any questions on this permit, please contact Randy Solomon at 217/782-2113.

Edwin C. Bakowski, P.E.
Acting Manager, Permit Section
Division of Air Pollution Control

ECB:RBS:psj

cc: Illinois EPA, FOS Region 1
Lotus Notes

Attachment A - Emission Summary

This attachment provides a summary of the maximum emissions from Manufacturing Metal Fans and Wheels for HVACs, operating in compliance with the requirements of this federally enforceable permit. In preparing this summary, the Illinois EPA used the annual operating scenario which results in maximum emissions from such a plant. This is handling 21 tons of VOM per year. The resulting maximum emissions are below the levels (e.g., less than 100 tons/year of volatile organic material (VOM), 25 tons/year of combined HAPs, and 10 tons/year of each single HAP) at which this source would be considered a major source for purposes of the Clean Air Act Permit Program. Actual emissions from this source will be less than predicted in this summary to the extent that less material is handled and control measures are more effective than required in this permit.

<u>Emission Unit</u>	E M I S S I O N S (Tons/Year)						Single <u>HAP</u>	Total <u>HAPs</u>
	<u>CO</u>	<u>NOx</u>	<u>PM</u>	<u>SO₂</u>	<u>VOM</u>			
SVE Unit					3.20		3.2	3.2
16 Screw Machines					0.70			
74 Punch Presses					20.30			
Powder Coating Operation			0.44		0.44			
Fuel Combustion	<u>8.4</u>	<u>9.9</u>	<u>0.80</u>	<u>----</u>	<u>0.05</u>	<u>----</u>	<u>----</u>	<u>----</u>
Totals	8.4	9.9	1.24	--	24.69	< 10	< 25	

RBS:psj