

217/782-2113

FEDERALLY ENFORCEABLE STATE OPERATING PERMIT -- RENEWAL

PERMITTEE

Clad-Rex, Inc.  
Attn: Michael G. Harker  
11500 West King Street  
Franklin Park, Illinois 60131

Application No.: 74120084

I.D. No.: 031096ABM

Applicant's Designation:

Date Received: November 7, 2005

Subject: Vinyl Metal Laminating

Date Issued: October 7, 2008

Expiration Date: October 7, 2013

Location: 11500 West King Street, Franklin Park, Cook County

Permit is hereby granted to the above-designated Permittee to OPERATE emission source(s) and/or air pollution control equipment consisting of a laminator and a back coater, both controlled by regenerative thermal oxidizer (RTO) and an alkaline/phosphate cleaning line 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/year of volatile organic materials (VOM), 10 tons/year for a single hazardous air pollutant (HAP) and 25 tons/year of any combination of such HAPs). 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. To establish 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 so that the source is not subject to the requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAP) for Surface Coating of Miscellaneous Metal Parts and Products, 40 CFR 63 Subpart Mmmm.
  - iii. To limit the potential emissions of VOM from the source to less than 25 tons/year. As a result, the source is excluded from the requirement 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.
- 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. Pursuant to 35 Ill. Adm. Code 212.301, no person shall cause or allow the emission of fugitive particulate matter from any process, including any material handling or storage activity, that is visible by an observer looking generally toward the zenith at a point beyond the property line of the emission source.
- c. Pursuant to 35 Ill. Adm. Code 212.306, all normal traffic pattern access areas surrounding storage piles specified in 35 Ill. Adm. Code 212.304 and all normal traffic pattern roads and parking facilities which are located on mining or manufacturing property shall be paved or treated with water, oils or chemical dust suppressants. All paved areas shall be cleaned on a regular basis. All areas treated with water, oils or chemical dust suppressants shall have the treatment applied on a regular basis, as needed, in accordance with the operating program required by 35 Ill. Adm. Code 212.309, 212.310 and 212.312.
- d. Pursuant to 35 Ill. Adm. Code 212.309(a), the emission units described in 35 Ill. Adm. Code 212.304 through 212.308 shall be operated under the provisions of an operating program, consistent with the requirements set forth in 35 Ill. Adm. Code 212.310 and 212.312, and prepared by the owner or operator and submitted to the Illinois EPA for its review. Such operating program shall be designed to significantly reduce fugitive particulate matter emissions.
- e. Pursuant to 35 Ill. Adm. Code 212.310, as a minimum the operating program shall include the following:
  - i. The name and address of the source;
  - ii. The name and address of the owner or operator responsible for execution of the operating program;
  - iii. A map or diagram of the source showing approximate locations of storage piles, conveyor loading operations, normal traffic pattern access areas surrounding storage piles and all normal traffic patterns within the source;
  - iv. Location of unloading and transporting operations with pollution control equipment;
  - v. A detailed description of the best management practices utilized to achieve compliance with 35 Ill. Adm. Code 212 Subpart K, including an engineering specification of particulate collection equipment, application systems for water, oil, chemicals and dust suppressants utilized and equivalent methods utilized;

- vi. Estimated frequency of application of dust suppressants by location of materials; and
  - vii. Such other information as may be necessary to facilitate the Illinois EPA's review of the operating program.
- f. Pursuant to 35 Ill. Adm. Code 212.314, 35 Ill. Adm. Code 212.301 shall not apply and spraying pursuant to 35 Ill. Adm. Code 212.304 through 212.310 and 35 Ill. Adm. Code 212.312 shall not be required when the wind speed is greater than 40.2 km/hr (25 mph). Determination of wind speed for the purposes of this rule shall be by a one-hour average or hourly recorded value at the nearest official station of the U.S. Weather Bureau or by wind speed instruments operated on the site. In cases where the duration of operations subject to this rule is less than one hour, wind speed may be averaged over the duration of the operations on the basis of on-site wind speed instrument measurements.
- g. 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 218.207(a), any owner or operator of a coating line subject to 35 Ill. Adm. Code 218.204 (i.e. the back coater) may comply with 35 Ill. Adm. Code 218.207, rather than with 35 Ill. Adm. Code 218.204, if a capture system and control device are operated at all times the coating line is in operation and the owner or operator demonstrates compliance with 35 Ill. Adm. Code 218.207(c), (d), (e), (f), (g), (h), (i), (j), or (k) of (depending upon the source category) through the applicable coating analysis and capture system and control device efficiency test methods and procedures specified in 35 Ill. Adm. Code 218.105 and the recordkeeping and reporting requirements specified in 35 Ill. Adm. Code 218.211(e); and the control device is equipped with the applicable monitoring equipment specified in 35 Ill. Adm. Code 218.105(d) and the monitoring equipment is installed, calibrated, operated and maintained according to vendor specifications at all times the control device is in use. A capture system and control device, which does not demonstrate compliance with 35 Ill. Adm. Code 218.207(c), (d), (e), (f), (g), (h), (i), (j), or (k) may be used as an alternative to compliance with 35 Ill. Adm. Code 218.204 only if the alternative is approved by the Illinois EPA and approved by the USEPA as a SIP revision.
- b. i Pursuant to 35 Ill. Adm. Code 218.207(b)(1), the coating line is equipped with a capture system and control device that provides 81 percent reduction in the overall emissions of VOM from the coating line and the control device has a 90 percent efficiency, or
  - ii Pursuant to 35 Ill. Adm. Code 218.207(b)(2), the system used to control VOM from the coating line is demonstrated to have an

overall efficiency sufficient to limit VOM emissions to no more than what is allowed under 35 Ill. Adm. Code 218.204.

- c. Pursuant to 35 Ill. Adm. Code 218.207(d), no owner or operator of a miscellaneous metal parts and products coating line which applies one or more coatings during the same day, all of which are subject to the same numerical emission limitation within Section 218.204(j) (e.g., all coatings used on the line are subject to 0.42 kg/l [3.5 lbs/gal], and which is equipped with a capture system and control device shall operate the subject coating line unless the requirements in subsection (b)(1) or (b)(2) of this Section are met.
- d. Pursuant to 35 Ill. Adm. Code 218.926, every owner or operator of miscellaneous fabricated product manufacturing process emission unit (i.e., the laminator) subject to 35 Ill. Adm. Code 218 Subpart PP shall comply with the requirements of 218.926(a), (b) or (c):
  - i. Emission capture and control techniques which achieve an overall reduction in uncontrolled VOM emissions of at least 81 percent from each emission unit; or
  - ii. For coating lines: The daily-weighted average VOM content shall not exceed 0.42 kg VOM/l (3.5 lbs VOM/gal) of coating as applied (minus water and any compounds which are specifically exempted from the definition of VOM) during any day. Owners and operators complying with this limitation are not required to comply with 35 Ill. Adm. Code 218.301.
- 4. Pursuant to 35 Ill. Adm. Code 218.209, no owner or operator of a coating line subject to the limitations of 35 Ill. Adm. Code 218.204 is required to meet the limitations of 35 Ill. Adm. Code 218 Subpart G (35 Ill. Adm. Code 218.301 or 218.302).
- 5a. The regenerative thermal oxidizer shall be in operation at all times when the associated coating line and laminator are in operation and emitting air contaminants.
- b. The regenerative thermal oxidizer combustion chamber shall be preheated to the temperature no less than the average temperature at which compliance was demonstrated during the most recent performance test. This temperature shall be maintained during operation of the associated emission units.
- c. The Permittee shall, in accordance with the manufacturer(s) and/or vendor(s) recommendations, perform periodic maintenance on the regenerative thermal oxidizer such that the regenerative thermal oxidizer be kept in proper working condition and not cause a violation of the Illinois Environmental Protection Act or regulations promulgated therein.
- 6a. The operations and VOM emissions of the laminator and back coater shall not exceed the following limits:

Raw Material	VOM	Control
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<u>Raw Material</u>	<u>Usage</u>		<u>Content</u> (Lb/Gal)	<u>Efficiency</u> (%)	<u>VOM Emissions</u>	
	(Gal/Mo)	(Gal/Yr)			(Ton/Mo)	(Ton/Yr)
Adhesive	5,000	50,000	5.8	90	1.5	14.5
Thinner	2,200	22,000	7.4	90	0.8	8.1
Paint	200	1,000	7.5	90	0.04	0.4
Solvent	50	400	7.5	--	0.2	<u>1.5</u>
					Total	24.5

These limits define the potential emissions of the VOM and are based on the actual emissions determined from the maximum production capacity, the highest VOM content of raw materials and control efficiency of the RTO complying with requirements of 218.207(a) and 218.926(a) as requested by Permittee.

- b. This permit is issued based on negligible emission of particulate matter (PM) from the cleaning line. For this purpose, emission shall not exceed nominal emission rates of 0.1 lb/hour and 0.44 tons/year.
  - c. The emissions of Hazardous Air Pollutants (HAPs) as listed in Section 112(b) of the Clean Air Act shall not exceed 0.9 tons/month and 9.0 tons/year of any single HAP and 2.25 tons/month and 22.5 tons/year of any combination of such HAPs. As a result of this condition, this permit is issued based on the emissions of any HAP from this source not triggering the requirement to obtain a CAAPP permit from the Illinois EPA.
  - d. Compliance with annual limits 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).
- 7a. Pursuant to 35 Ill. Adm. Code 201.282, every emission source or air pollution control equipment shall be subject to the following testing requirements for the purpose of determining the nature and quantities of specified air contaminant emissions and for the purpose of determining ground level and ambient air concentrations of such air contaminants:
- i. Testing by Owner or Operator. The Illinois EPA may require the owner or operator of the emission source or air pollution control equipment to conduct such tests in accordance with procedures adopted by the Illinois EPA, at such reasonable times as may be specified by the Illinois EPA and at the expense of the owner or operator of the emission source or air pollution control equipment. The Illinois EPA may adopt procedures detailing methods of testing and formats for reporting results of testing. Such procedures and revisions thereto, shall not become effective until filed with the Secretary of State, as required by the APA Act. All such tests shall be made by or under the direction of a person qualified by training and/or experience in the field of air pollution testing. The Illinois EPA shall have the right to observe all aspects of such tests.

- ii. Testing by the Illinois EPA. The Illinois EPA shall have the right to conduct such tests at any time at its own expense. Upon request of the Illinois EPA, the owner or operator of the emission source or air pollution control equipment shall provide, without charge to the Illinois EPA, necessary holes in stacks or ducts and other safe and proper testing facilities, including scaffolding, but excluding instruments and sensing devices, as may be necessary.
- b. Testing required by Conditions 8 and 9 shall be performed upon a written request from the Illinois EPA by a qualified independent testing service.
- 8. Pursuant to 35 Ill. Adm. Code 212.110(c), 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.
- 9a. 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 of this Part to establish the records required under 35 Ill. Adm. Code 218.211.
- b. Pursuant to 35 Ill. Adm. Code 218.928(a), when in the opinion of the Illinois EPA it is necessary to conduct testing to demonstrate compliance with 35 Ill. Adm. Code 218.926, the owner or operator of a VOM emission unit subject to the requirements of this 35 Ill. Adm. Code 218 Subpart PP shall, at his own expense, conduct such tests in accordance with the applicable test methods and procedures specified in 35 Ill. Adm. Code 218.105.
- 10a. Pursuant to 35 Ill. Adm. Code 218.105(d)(2)(A)(i), an owner or operator that uses an afterburner or carbon adsorber to comply with any Section of 35 Ill. Adm. Code Part 218 shall use Illinois EPA and USEPA approved continuous monitoring equipment which is installed, calibrated, maintained, and operated according to vendor specifications at all times the control device is in use except as provided in 35 Ill. Adm. Code 218.105(d)(3). The continuous monitoring equipment must monitor for each afterburner which does not have a catalyst bed, the combustion chamber temperature of each afterburner.
- b. Pursuant to 35 Ill. Adm. Code 218.105(d)(2)(B), an owner or operator must install, calibrate, operate and maintain, in accordance with manufacturer's specifications, a continuous recorder on the temperature monitoring device, such as a strip chart, recorder or computer, having an accuracy of  $\pm 1$  percent of the temperature measured in degrees Celsius or  $\pm 0.5^{\circ}$  C, whichever is greater.

11. 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.
12. 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.
- 13a. Pursuant to 35 Ill. Adm. Code 218.211(e)(2), any owner or operator of a coating line subject to the limitations of 35 Ill. Adm. Code 218.207 and complying by means of 35 Ill. Adm. Code 218.207(c), (d), (e), (f), (g) or (h) 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 weight of VOM per volume of coating solids as applied each day on each coating line, if complying pursuant to 35 Ill. Adm. Code 218.207(b)(2).
  - ii. Control device monitoring data, i.e. RTO temperature.
  - iii. A log of operating time for the capture system, control device, monitoring equipment and the associated coating line.
  - iv. A maintenance log for the capture system, control device and monitoring equipment detailing all routine and non-routine

maintenance performed including dates and duration of any outages.

- b. Pursuant to 35 Ill. Adm. Code 218.991(a)(2), any owner or operator of a VOM emission unit subject to the requirements of 35 Ill. Adm. Code 218 Subpart PP, QQ, RR or TT and complying by the use of emission capture and control equipment shall collect and record all of the following information each day and maintain the information at the source for a period of three years:
  - i. Control device monitoring data, i.e. RTO temperature.
  - ii. A log of the operating time for the capture system, control device, monitoring equipment and the coating operation.
  - iii. A maintenance log for the capture system, control device and monitoring equipment detailing all routine and non-routine maintenance performed including dates and duration of any outages.
  
- 14a. 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 regenerative thermal oxidizer:
    - A. Records for periodic inspection of the regenerative thermal oxidizer with date, individual performing the inspection, and nature of inspection; and
    - B. Records for prompt repair of defects, with identification and description of defect, observed effect on emissions, whether excess emission occurred, date identified, date repaired, and nature of repair.
  - ii. Names and amounts of adhesives and thinners used in the laminator (gallons/month);
  - iii. Name and amount of paint used in the back coater (gallons/month);
  - iv. Names and amounts of solvents used for cleanup (gallons/month);
  - v. VOM and HAP content of materials used in the laminator and the back coater (lbs/gallon); and
  - vi. Monthly and annual VOM and HAP emissions with supporting calculations (lbs/month and tons/year).
  
- b. 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 a computer shall be capable of being retrieved and printed on paper during normal source office hours so as to be able to respond

them to an Illinois EPA or USEPA request for records during the course of a source inspection.

15. 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.
- 16a. Pursuant to 35 Ill. Adm. Code 218.211(e)(3), any owner or operator of a coating line subject to the limitations of 35 Ill. Adm. Code 218.207 and complying by means of 35 Ill. Adm. Code 218.207(c), (d), (e), (f), (g) or (h) shall notify the Illinois EPA in the following instances:
  - i. Any record showing violation of 35 Ill. Adm. Code 218.207 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 with 35 Ill. Adm. Code 218 Subpart F from 35 Ill. Adm. Code 218.207 to 35 Ill. Adm. Code 218.204 or 35 Ill. Adm. Code 218.205, the owner or operator shall comply with all requirements of 35 Ill. Adm. Code 218.207(c)(1) or (d)(1), respectively. Upon changing the method of compliance with 35 Ill. Adm. Code 218 Subpart F from 35 Ill. Adm. Code 218.207 to 35 Ill. Adm. Code 218.204 or 35 Ill. Adm. Code 218.205, the owner or operator shall comply with all requirements of 35 Ill. Adm. Code 218.207(c) or (d), respectively.
- b. Pursuant to 35 Ill. Adm. Code 218.991(a)(3), any owner or operator of a VOM emission unit subject to the requirements of 35 Ill. Adm. Code 218 Subpart PP, QQ, RR or TT and complying by the use of emission capture and control equipment shall notify the Illinois EPA in the following instances:
  - i. Any record showing a violation of the requirements of 35 Ill. Adm. Code 218 Subpart PP, QQ, RR or TT 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 with 35 Ill. Adm. Code 218 Subpart PP or TT from the use of capture systems and control devices to the use of complying coatings, the owner or operator shall comply with all requirements of 35 Ill. Adm. Code 218.991(b)(1). Upon changing the method of compliance with 35 Ill. Adm. Code 218 Subpart PP or TT from the use of capture systems and control devices to the use of complying coatings, the owner or operator shall comply with all requirements of 35 Ill. Adm. Code 218.991(b).
17. If there is an exceedance of or 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/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.

18. 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 West Harrison  
Des Plaines, Illinois 60016

If you have any questions on this, please call Valeriy Brodsky at 217/782-2113.

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

Date Signed: \_\_\_\_\_

ECB:VJB:jws

cc: Illinois EPA, FOS Region 1  
Lotus Notes

Attachment A - Emissions Summary

This attachment provides a summary of the maximum emissions from metal laminating plant 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 usage of 50,000 gallons of adhesive, 22,000 gallons of adhesive thinner, 1,000 gallons of paint, 400 gallons of clean-up solvents per year and continuous operation of the catalytic afterburner with minimum efficiency of 90%. The resulting maximum emissions are below the levels (e.g., 100 tons per year of VOM, 10 tons per year for a single HAP and 25 tons per year for totaled HAPs) 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)			
	<u>PM</u>	<u>VOM</u>	<u>Individual HAP</u>	<u>Total HAPs</u>
Laminator and Back Coater		24.5	9.0	22.5
Cleaning Line	<u>0.44</u>	<u>--</u>	<u>--</u>	<u>--</u>
Totals	0.44	24.5	9.0	22.5

VJB:jws