

217/782-2113

CONSTRUCTION PERMIT

PERMITTEE

Eakas Corporation
Attn: Laurence Castelli
31st Road and U.S. Route 251
Peru, Illinois 61354

Application No.: 04090058 I.D. No.: 099085ABL
Applicant's Designation: Date Received: September 20, 2004
Subject: Production Increases at Existing Lines
Date Issued: February 22, 2005
Location: 31st Road and U.S. Route 251, Peru

This Permit is hereby granted to the above-designated Permittee to CONSTRUCT emission source(s) and/or air pollution control equipment consisting of modifications to the L coating line, with spray booth waterwash and oven afterburner and the RW coating line with spray booth waterwash, as described in the above-referenced application. This Permit is subject to standard conditions attached hereto and the following special condition(s):

1.0 Unit Specific Conditions

1.1 Unit: Coating Lines
Control: Waterwash Chamber, Concentrator/Catalytic Oxidizer

1.1.1 Description

Unfinished plastic automotive fittings and parts are painted (primed, base coated, and clear coated) with a variety of coatings. Coating is principally applied in the paint booths via spray robots. Coated parts are conveyed to an electric curing oven to be heat dried.

The compact line and HG line have the option to use a zeolite rotary concentrator and catalytic oxidizer for the control of volatile organic material (VOM) emissions from the drying process. The L line has the option to use a regenerative thermal oxidizer for the control of VOM emissions from the drying process. On each line, particulate matter generated during coating application are exhausted through a water wash chamber.

1.1.2 List of Emission Units and Air Pollution Control Equipment

Emission Unit	Description	Emission Control Equipment
Compact Line	Coating Line with Oven	Waterwash Chamber, Concentrator/Catalytic Oxidizer
L Line	Coating Line with Oven	Waterwash Chamber, Regenerative Thermal Oxidizer
RW Line	Coating Line with Oven	Waterwash Chamber
HG Line	Coating Line with Ovens	Waterwash Chamber, Concentrator/Catalytic Oxidizer

1.1.3 Applicability Provisions and Applicable Regulations

- a. The "affected lines" for the purpose of these unit-specific conditions, are the coating lines as described in Conditions 1.1.1 and 1.1.2.
- b. The individual emission sources in the affected lines (spray booth and oven) shall comply with the organic material standards of 35 IAC Part 215, Subpart K: Use of organic material, as further set forth below:
 - i. Option 1: No person shall cause or allow the discharge of more than 3.6 kg/hr (8 lbs/hr) of organic material into the atmosphere from any emission source, except as provided by the following exception: If no odor nuisance exists this limitation shall apply only to photochemically reactive material; or
 - ii. Option 2: Emissions shall be controlled by a combustion type control device so as to convert 85 percent of the hydrocarbons to carbon dioxide and water.
- c. The affected lines are subject to 35 IAC 212.321(b)(1), which provides that 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, either alone or in combination with the emission of particulate matter from all other similar process emission units for which construction or modification commenced after April 14, 1972, at a source or premises, exceeds the allowable emission rates specified in 35 IAC 212.321(c) [35 IAC 212.321(a)].

1.1.4 Non-Applicability of Regulations of Concern

- a. This permit is issued based on the affected lines not being subject to 35 IAC 215.204, because the affected lines coat plastic parts.
- b. The Permittee has addressed the applicability of 40 CFR 52.21, Prevention of Significant Deterioration (PSD) to this project. The limits in this permit are intended to ensure that the project addressed in this construction permit does not constitute a major modification pursuant to these rules. In particular, the new limitations on the original plant (L Line and RW Line) continue to be limited to less than a major source (less than 250 tons of VOM), the plant addition in 2000 (HG Line) is also less than a major

source (less than 250 tons of VOM), and the plant addition in 2004 (Compact Line) is less than significant (less than 40 tons).

- c. This permit is issued based on the compact line and the HG line not being a new major source of HAPs, so that the these lines are not subject to a case-by-case determination of Maximum Achievable Control Technology (MACT), pursuant to Section 112(g) of the Clean Air Act.

1.1.5 Control Requirement and Operational Limits and Work Practices

- a. If the Permittee elects to operate an oxidizer on the affected lines to comply with 35 IAC Part 215, Subpart K Option 2 (Condition 1.1.3(b) (ii)):
 - i.
 - A. The rotary concentrator and catalytic oxidizer system shall be operated to achieve at least 85% overall control (combination of capture and control) of the VOM.
 - B. The regenerative thermal oxidizer shall be operated to achieve at least 85% overall control (combination of capture and control) of the VOM.
 - ii. Each oxidizer combustion chamber shall be preheated to at least the manufacturer's recommended temperature but no less than the pre-heat temperature at which compliance was demonstrated in the most recent compliance test, before the affected lines begin operation. This temperature shall be maintained during operation of the affected lines.
 - iii.
 - A. The catalytic oxidizer shall be equipped with a continuous temperature indicator and strip chart recorder or disk storage for the inlet temperature and the temperature rise across each catalytic oxidizer bed.
 - B. The regenerative thermal oxidizer shall be equipped with a continuous temperature indicator and strip chart recorder or disk storage for the oxidizer's combustion chamber temperature.

- b. i. The VOM content of coatings used on the affected lines as applied, shall not exceed 5.75 lb/gallon (weighted monthly average).
- ii. A. The usage of coating, as applied, on the L Line and RW Line shall not exceed 8,661 gallons per month and 86,608 gallons per year, total.
B. The usage of coating, as applied, on the HG Line shall not exceed 1,704 gallons per month and 17,043 gallons per year.
C. The usage of coating, as applied, on the HG Line shall not exceed 1,357 gallons per month and 13,565 gallons per year.
- iii. The Permittee shall recycle all of the VOM flushing thinner in the process. As a consequence, there shall be no VOM emissions associated with the flushing thinner.

1.1.6 Emission Limitations

- a. Emissions from the L Line and RW Line shall not exceed the following limits:

VOM Emissions	
<u>(Tons/Month)</u>	<u>(Tons/Year)</u>
24.9	249.0

- b. Emissions from the HG Line shall not exceed the following limits:

VOM Emissions	
<u>(Tons/Month)</u>	<u>(Tons/Year)</u>
4.9	49.0

- c. Emissions from the Compact Line shall not exceed the following limits:

VOM Emissions	
<u>(Tons/Month)</u>	<u>(Tons/Year)</u>
3.9	39.0

- d. Emissions of HAPs from the affected lines shall not exceed 9.0 tons per year of individual HAPs and 24.0 tons per year for total HAPs.

- e. This permit is issued based on minimal emissions of particulate matter from the affected lines. For this purpose, emissions from each such unit shall not exceed the nominal emission rate of 1.0 tons per year.
- f. 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).

1.1.7 Testing Requirements

- a. The VOM content of coatings shall be determined by Method 24, 40 CFR Part 60, Appendix A, except for glues and adhesive coatings, two component reactive coatings forming volatile reaction products, coatings requiring energy other than heat to initiate curing, and coatings requiring high temperature catalysis for curing, providing the person proposing testing of the material submits to the Illinois EPA proof that the Method 24 results would not be representative and proof that a proposed alternative test method gives representative, accurate test results.
- b. Any alternate test method must be approved by the Illinois EPA, which shall consider data comparing the performance of the proposed alternative to the performance of the approved test method(s). If the Illinois EPA determines that such data demonstrates that the proposed alternative will achieve results equivalent to the approved test method(s), the Illinois EPA shall approve the proposed alternative [35 IAC 215.208(a)].

1.1.8 Monitoring Requirements

- a. By March 1, 2006, the Permittee shall install, calibrate, maintain, and operate continuous monitoring equipment which will monitor the VOM concentration of the zeolite concentrator exhaust, according to vendor specifications at all times the zeolite concentrator is in use.

1.1.9 Recordkeeping Requirements

The Permittee shall maintain records of the following items for the plant:

- a. The following records for the emission sources in the affected lines related to compliance with 35 IAC Part 215, Subpart K:

- i. When complying with 35 IAC Part 215, Subpart K using Option 1 (see Condition 1.1.3(b)(i)), the Permittee shall maintain:
 - A. A file containing calculations for the maximum organic material emissions that could be emitted in any continuous one hour period for each emission source (See also Condition 1.1.3(c)).
 - B. If the Permittee chooses to use the exception for emissions of organic material that are not photochemically reactive, as defined in 35 IAC 211.4690, in 35 IAC Part 215.301 and Condition 1.1.3(b)(i), the Permittee shall maintain a file which identifies which coatings whose organic material emissions are not photochemically reactive, with supporting documentation.
- ii. When complying with 35 IAC Part 215, Subpart K using Option 2 (see Condition 1.1.3(b)(ii)), the Permittee shall collect and record all of the following information each day for the oxidizer:
 - A. Monitoring data for inlet temperature and temperature rise across the catalyst bed for the catalytic oxidizer;
 - B. Monitoring data for the regenerative thermal oxidizer combustion chamber;
 - C. A log of the operating time for the capture systems, oxidizer, monitoring device and the associated coating line;
 - D. A maintenance log for the capture system, oxidizer and monitoring device detailing all routine and non-routine maintenance performed including dates and duration of any outages;
- b. The following operational records for the affected lines:
 - i. Usage of each material used on each coating line (gallons/month and gallons/year);

- ii. VOM and HAP content of each material used (lb/gallon, less water);
- iii. VOM emissions from each affected line (tons/month and tons/year); and
- iv. HAP emissions from the affected lines (tons/month and tons/year).

1.1.10 Reporting Requirements

The Permittee shall promptly notify the Illinois EPA of deviations with the permit requirements as follows. Reports shall describe the probable cause of such deviations, and any corrective actions or preventive measures taken:

- a. Any deviation from the requirements in Conditions 1.1.5 and 1.1.6 shall be reported by sending a copy of such record to the Illinois EPA within 30 days following the occurrence of the deviation.
- b. Any record showing violation of the emission limitations in Condition 1.1.6 shall be reported by sending a copy of such record to the Illinois EPA within 30 days following the occurrence of the violation.

1.1.11 Compliance Procedures

Compliance with the VOM and HAP emission limits established in Condition 1.1.6 shall be based on the recordkeeping requirements in Condition 1.1.9 and the emission factors and formulas listed below:

- a. Controlled Operations:

$$E = U \times C \times (1-K)$$

Where:

E = Emissions of VOM or HAP (pounds)

U = Material usage (gallons)

C = VOM or HAP content of the material used (lb/gallon)

K = Overall control device efficiency (percent), if used appropriately

b. Uncontrolled Operations:

$$E = U \times C$$

2. The affected lines may operate until December 31, 2005 under this construction permit.

Please note that this construction permit does not authorize construction of the compact line because information in the application indicates construction has either commenced or been completed prior to issuance of this permit.

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

Donald E. Sutton, P.E.
Manager, Permit Section
Division of Air Pollution Control

DES:JMS:jar

cc: Region 2
Lotus Notes