



State of Ohio Environmental Protection Agency

**RE: FINAL PERMIT TO INSTALL CERTIFIED MAIL
MAHONING COUNTY**

Street Address:

122 S. Front Street

Lazarus Gov. Center TELE: (614) 644-3020 FAX: (614) 644-2329

Mailing Address:

Lazarus Gov. Center
P.O. Box 1049

**Application No: 02-19549
Fac ID: 0250110920**

DATE: 9/7/2004

EXAL Corporation
Tom Alcaro
One Performance Place
Youngstown, OH 44502

Enclosed please find an Ohio EPA Permit to Install which will allow you to install the described source(s) in a manner indicated in the permit. Because this permit contains several conditions and restrictions, I urge you to read it carefully.

The Ohio EPA is urging companies to investigate pollution prevention and energy conservation. Not only will this reduce pollution and energy consumption, but it can also save you money. If you would like to learn ways you can save money while protecting the environment, please contact our Office of Pollution Prevention at (614) 644-3469.

You are hereby notified that this action by the Director is final and may be appealed to the Ohio Environmental Review Appeals Commission pursuant to Chapter 3745.04 of the Ohio Revised Code. The appeal must be in writing and set forth the action complained of and the grounds upon which the appeal is based. It must be filed within thirty (30) days after the notice of the Directors action. A copy of the appeal must be served on the Director of the Ohio Environmental Protection Agency within three (3) days of filing with the Commission. An appeal may be filed with the Environmental Review Appeals Commission at the following address:

Environmental Review Appeals Commission
309 South Fourth Street, Room 222
Columbus, Ohio 43215

Sincerely,

Michael W. Ahern, Manager
Permit Issuance and Data Management Section
Division of Air Pollution Control

CC: USEPA

NEDO



**Permit To Install
Terms and Conditions**

**Issue Date: 9/7/2004
Effective Date: 9/7/2004**

FINAL PERMIT TO INSTALL 02-19549

Application Number: 02-19549
Facility ID: 0250110920
Permit Fee: **\$200**
Name of Facility: EXAL Corporation
Person to Contact: Tom Alcaro
Address: One Performance Place
Youngstown, OH 44502

Location of proposed air contaminant source(s) [emissions unit(s)]:

**One Performance Place
Youngstown, Ohio**

Description of proposed emissions unit(s):

Can Coating Line No. 8.

The above named entity is hereby granted a Permit to Install for the above described emissions unit(s) pursuant to Chapter 3745-31 of the Ohio Administrative Code. Issuance of this permit does not constitute expressed or implied approval or agreement that, if constructed or modified in accordance with the plans included in the application, the above described emissions unit(s) of environmental pollutants will operate in compliance with applicable State and Federal laws and regulations, and does not constitute expressed or implied assurance that if constructed or modified in accordance with those plans and specifications, the above described emissions unit(s) of pollutants will be granted the necessary permits to operate (air) or NPDES permits as applicable.

This permit is granted subject to the conditions attached hereto.

Ohio Environmental Protection Agency

Director

Part I - GENERAL TERMS AND CONDITIONS

A. Permit to Install General Terms and Conditions

1. Compliance Requirements

The emissions unit(s) identified in this Permit to Install shall remain in full compliance with all applicable State laws and regulations and the terms and conditions of this permit.

2. Reporting Requirements

The permittee shall submit required reports in the following manner:

- a. Reports of any required monitoring and/or record keeping information shall be submitted to the appropriate Ohio EPA District Office or local air agency.
- b. Except as otherwise may be provided in the terms and conditions for a specific emissions unit, quarterly written reports of (a) any deviations (excursions) from emission limitations, operational restrictions, and control device operating parameter limitations that have been detected by the testing, monitoring, and record keeping requirements specified in this permit, (b) the probable cause of such deviations, and (c) any corrective actions or preventive measures which have been or will be taken, shall be submitted to the appropriate Ohio EPA District Office or local air agency. If no deviations occurred during a calendar quarter, the permittee shall submit a quarterly report, which states that no deviations occurred during that quarter. The reports shall be submitted quarterly, i.e., by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters. (These quarterly reports shall exclude deviations resulting from malfunctions reported in accordance with OAC rule 3745-15-06.)

3. Records Retention Requirements

Each record of any monitoring data, testing data, and support information required pursuant to this permit shall be retained for a period of five years from the date the record was created. Support information shall include, but not be limited to, all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by this permit. Such records may be maintained in computerized form.

4. Inspections and Information Requests

The Director of the Ohio EPA, or an authorized representative of the Director, may, subject to the safety requirements of the permittee and without undue delay, enter upon the premises of this source at any reasonable time for purposes of making inspections, conducting tests, examining records or reports pertaining to any emission of air contaminants, and determining compliance with any applicable State air pollution laws and regulations and the terms and conditions of this permit. The permittee shall furnish to the Director of the Ohio EPA, or an authorized

representative of the Director, upon receipt of a written request and within a reasonable time, any information that may be requested to determine whether cause exists for modifying, reopening or revoking this permit or to determine compliance with this permit. Upon verbal or written request, the permittee shall also furnish to the Director of the Ohio EPA, or an authorized representative of the Director, copies of records required to be kept by this permit.

5. Scheduled Maintenance/Malfunction Reporting

Any scheduled maintenance of air pollution control equipment shall be performed in accordance with paragraph (A) of OAC rule 3745-15-06. The malfunction of any emissions units or any associated air pollution control system(s) shall be reported to the appropriate Ohio EPA District Office or local air agency in accordance with paragraph (B) of OAC rule 3745-15-06. Except as provided in that rule, any scheduled maintenance or malfunction necessitating the shutdown or bypassing of any air pollution control system(s) shall be accompanied by the shutdown of the emissions unit(s) that is (are) served by such control system(s).

6. Permit Transfers

Any transferee of this permit shall assume the responsibilities of the prior permit holder. The appropriate Ohio EPA District Office or local air agency must be notified in writing of any transfer of this permit.

7. Air Pollution Nuisance

The air contaminants emitted by the emissions units covered by this permit shall not cause a public nuisance, in violation of OAC rule 3745-15-07.

8. Termination of Permit to Install

This Permit to Install shall terminate within eighteen months of the effective date of the Permit to Install if the owner or operator has not undertaken a continuing program of installation or modification or has not entered into a binding contractual obligation to undertake and complete within a reasonable time a continuing program of installation or modification. This deadline may be extended by up to 12 months if application is made to the Director within a reasonable time before the termination date and the party shows good cause for any such extension.

9. Construction of New Sources(s)

The proposed emissions unit(s) shall be constructed in strict accordance with the plans and application submitted for this permit to the Director of the Ohio Environmental Protection Agency. There may be no deviation from the approved plans without the express, written approval of the Agency. Any deviations from the approved plans or the above conditions may lead to such sanctions and penalties as provided under Ohio law. Approval of these plans does not constitute an assurance that the proposed facilities will operate in compliance with all Ohio laws and regulations. Additional facilities shall be installed upon orders of the Ohio

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Environmental Protection Agency if the proposed sources cannot meet the requirements of this permit or cannot meet applicable standards.

If the construction of the proposed emissions unit(s) has already begun or has been completed prior to the date the Director of the Environmental Protection Agency approves the permit application and plans, the approval does not constitute expressed or implied assurance that the proposed facility has been constructed in accordance with the approved plans. The action of beginning and/or completing construction prior to obtaining the Director's approval constitutes a violation of OAC rule 3745-31-02. Furthermore, issuance of the Permit to Install does not constitute an assurance that the proposed source will operate in compliance with all Ohio laws and regulations. Approval of the plans in any case is not to be construed as an approval of the facility as constructed and/or completed. Moreover, issuance of the Permit to Install is not to be construed as a waiver of any rights that the Ohio Environmental Protection Agency (or other persons) may have against the applicant for starting construction prior to the effective date of the permit. Additional facilities shall be installed upon orders of the Ohio Environmental Protection Agency if the proposed facilities cannot meet the requirements of this permit or cannot meet applicable standards.

10. Public Disclosure

The facility is hereby notified that this permit, and all agency records concerning the operation of this permitted source, are subject to public disclosure in accordance with OAC rule 3745-49-03.

11. Applicability

This Permit To Install is applicable only to the emissions unit(s) identified in the Permit To Install. Separate Permit To Install for the installation or modification of any other emissions unit(s) are required for any emissions unit for which a Permit To Install is required.

12. Best Available Technology

As specified in OAC Rule 3745-31-05, all new sources must employ Best Available Technology (BAT). Compliance with the terms and conditions of this permit will fulfill this requirement.

13. Source Operation and Operating Permit Requirements After Completion of Construction

This facility is permitted to operate each source described by this Permit to Install for a period of up to one year from the date the source commenced operation. This permission to operate is granted only if the facility complies with all requirements contained in this permit and all applicable air pollution laws, regulations, and policies. Pursuant to OAC Chapter 3745-35, the permittee shall submit a complete operating permit application within ninety (90) days after commencing operation of the emissions unit(s) covered by this permit.

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14. Construction Compliance Certification

The applicant shall provide Ohio EPA with a written certification (see enclosed form) that the facility has been constructed in accordance with the Permit to Install application and the terms and conditions of the Permit to Install. The certification shall be provided to Ohio EPA upon completion of construction but prior to startup of the source.

15. Fees

The permittee shall pay fees to the Director of the Ohio EPA in accordance with ORC section 3745.11 and OAC Chapter 3745-78. The permittee shall pay all applicable Permit to Install fees within 30 days after the issuance of this Permit to Install.

B. Permit to Install Summary of Allowable Emissions

The following information summarizes the total allowable emissions, by pollutant, based on the individual allowable emissions of each air contaminant source identified in this permit.

SUMMARY (for informational purposes only)
TOTAL PERMIT TO INSTALL ALLOWABLE EMISSIONS

| <u>Pollutant</u> | <u>Tons Per Year</u> |
|------------------|----------------------|
| VOC | 10 |
| combined HAPs | 2.7 |
| individual HAP | 1.2 |
| Cleanup VOC | 1.5 |

PART II - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)

A. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

| <u>Operations, Property, and/or Equipment</u> | <u>Applicable Rules/Requirements</u> | <u>Applicable Emissions Limitations/Control Measures</u> |
|---|---|--|
| K008 - Can coating line 8 with catalytic incinerator. | OAC Rule 3745-31-05 (A)(3) | 3.65 lbs/hr The requirements of this rule also include compliance with the requirements of OAC rule 3745-31-5(C). See Section A.2.b. |
| | OAC Rule 3745-21-09 (D) | The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3). |
| | OAC 3745-31-05(C) Synthetic Minor to avoid Title V and PSD | See Section A.2.c and B.2. |

2. Additional Terms and Conditions

- 2.a** The interior body spray booth, exterior basecoat applicator, overvarnish applicator and all bake ovens shall be vented to the thermal incinerator.
- 2.b** The permittee shall maintain for this emissions unit an overall VOC removal efficiency which is at least 85% by weight and a control efficiency (i.e., destruction or removal efficiency) which is at least 90% by weight.

- 2.c** The permittee shall limit emissions from this emissions unit (K008) to the following:
- i. 10 tons as a rolling, 12-month summation of VOC from the coating operation;
 - ii. 1.5 tons per year VOC from the cleanup materials; and
 - iii. 2.7 tons as a rolling, 12-month summation of combined hazardous air pollutants (HAPs), and 1.2 tons as a rolling, 12-month summation of individual HAPs.

B. Operational Restrictions

1. The average temperature of the exhaust gases immediately before the catalyst bed, for any 3-hour block of time when the emissions unit is in operation, shall not be more than 50 degrees Fahrenheit below the average temperature during the most recent emission test that demonstrated the emissions unit was in compliance. The average temperature difference across the catalyst bed, for any 3-hour block of time when the emissions unit is in operation, shall not be less than 80 percent of the average temperature difference during the most recent emission test that demonstrated the emissions unit was in compliance.
2. The total weight of volatile organic materials applied for K008 shall not exceed 10 tons of VOC applied per rolling 12 months, calculated using the following formula:

$$10 \text{ tons VOC} \geq \sum_{n=1}^i \frac{(P_i) (\text{VOC}_i) [1 - (\text{capture} * \text{DRE})]}{2000 \text{ lbs/ton}}$$

where:

P_i = usage of coating i in gallons.

VOC_i = volatile organic compound content of coating i in pounds VOC per gallon.

capture = the capture efficiency, calculated during the most recent emission test that demonstrated the emissions unit was in compliance.

DRE = destruction removal efficiency of the incinerator.

This restriction will effectively limit combined and individual HAPs emissions below 2.7 and 1.2 tons, respectively.

3. To ensure enforceability during the first 12 calendar months of operation following the issuance of this permit, the permittee shall not exceed the volatile organic material usage levels specified in the following table for K008:

| <u>Month(s)</u> | <u>Maximum Allowable Cumulative Volatile Organic Material Applied</u> |
|-----------------|---|
| 1 | 0.83 |
| 1-2 | 1.66 |
| 1-3 | 2.49 |
| 1-4 | 3.32 |
| 1-5 | 4.15 |
| 1-6 | 4.98 |
| 1-7 | 5.81 |
| 1-8 | 6.64 |
| 1-9 | 7.47 |
| 1-10 | 8.30 |
| 1-11 | 9.13 |
| 1-12 | 10 |

After the first 12 calendar months of operation following the issuance of this permit, compliance with the annual volatile organic material usage limitation shall be based upon a rolling, 12-month summation of the volatile organic material usage figures.

C. Monitoring and/or Record keeping Requirements

1. The permittee shall operate and maintain continuous temperature monitors and recorder(s) which measure and record(s) the temperature immediately upstream and downstream of the incinerator's catalyst bed when the emissions unit is in operation. Units shall be in degrees Fahrenheit. The monitoring and recording devices shall be capable of accurately measuring the desired parameter. The temperature monitors and recorder(s) shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, with any modifications deemed necessary by the permittee.

2. The permittee shall collect and record the following information for each day of operation of the emissions unit:
 - a. All 3-hour blocks of time (when the emissions unit was in operation) during which the average temperature of the exhaust gases immediately before the catalyst bed was more than 50 degrees Fahrenheit below the average temperature during the most recent emission test that demonstrated the emissions unit was in compliance;
 - b. All 3-hour blocks of time (when the emissions unit was in operation) during which the average temperature difference across the catalyst bed was less than 80 percent of the average temperature difference during the most recent emission test that demonstrated the emissions unit was in compliance; and
 - c. A log of the downtime for the capture (collection) system, control device, and monitoring equipment, when the associated emissions unit was in operation.

3. The permittee shall collect and record the following information each month for the coatings employed in this emissions unit:
 - a. The name and identification number of each coating employed;
 - b. The VOC content of each coating, as applied, in pounds of VOC per gallon of coating applied (PVGC);
 - c. The number of gallons of each coating employed (CT);
 - d. For each coating, the amount of VOC emitted, in tons per month, to be defined as "CVOC" and calculated as follows:
$$CVOC = [(CT) * (PVGC) * (1 \text{ ton}/2000 \text{ lbs})] * (1 - DE)$$

where:
DE = overall destruction efficiency from the most recent performance test that demonstrated compliance; and
 - e. The total amount of VOC emitted from this emissions unit from all coatings employed, in tons per month.

4. The permittee shall collect and record the following information each month for the cleanup materials employed in this emissions unit:

- a. The name and identification number of each cleanup material employed;
 - b. The amount of each cleanup material used, "CM", equal to the amount of each fresh cleanup material required minus the amount of each used cleanup material recovered for disposal, in gallons per month;
 - c. The VOC content of each cleanup solvent, in pounds of VOC per gallon of cleanup material used (PVGCM);
 - d. For each cleanup material, the amount of VOC emitted, in tons per month, to be defined as "CMVOC" and calculated as follows:
$$\text{CMVOC} = [(CM) * (PVGCM) * (1 \text{ ton}/2000 \text{ lbs})]; \text{ and}$$
 - e. The total amount of VOC emitted from the facility from all cleanup materials employed, in tons per month.
- 5.** The permittee shall maintain monthly records of the following information:
- a. The volatile organic material applied by weight as determined by the equation in Section B.2., in tons per month;
 - b. Beginning after the first 12 calendar months of operation following the issuance of this permit, the rolling, 12-month summation of the volatile organic materials applied, in tons;
 - c. The individual HAP content of each coating and cleanup material, as applied, in pounds of HAP per gallon of coating or cleanup material applied;
 - d. The total combined HAP content of each coating and cleanup material, as applied, in pounds of HAP per gallon of coating or cleanup material applied (sum of all the individual HAP contents from Section C.5.c);
 - e. The total individual HAP emissions for each HAP from all coatings and cleanup materials employed, in pounds or tons per month and pounds or tons per rolling, 12-month period (individual HAP emissions = total number of gallons x individual HAP content x (1 - DE), for each coating or cleanup material, where DE = overall destruction efficiency from the most recent performance test that demonstrated compliance); and

- f. The total combined HAP emissions from all coatings and cleanup materials employed, in pounds or tons per month and pounds or tons per rolling, 12-month period (total combined HAP emissions = total number of gallons x combined HAP content x (1 -DE), where DE = overall destruction efficiency from the most recent performance test that demonstrated compliance).
6. The permittee shall record the total annual VOC emissions from all coatings and cleanup materials employed in this emissions unit, in tons per calendar year. The total shall be a summation of the monthly VOC emissions from coatings recorded in Section C.3.e for the calendar year plus the monthly VOC emissions from all clean up materials recorded in Section C.4.e.

D. Reporting Requirements

1. The permittee shall submit quarterly deviation (excursion) reports that identify all 3-hour blocks of time when the emissions unit was in operation during which the average temperature of the exhaust gases immediately before the catalyst bed or the average temperature difference across the catalyst bed does not comply with the temperature limitation specified above. (These reports do not waive the reporting requirements of OAC Rule 3745-15-06.)
2. The permittee shall submit annual reports which specify the total VOC emissions from coatings and the total VOC emissions from the cleanup materials, in tons, for the previous calendar year. These reports shall be submitted by January 31 of each year.

E. Testing Requirements

1. The facility shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:
 - a. The emission testing shall be conducted within 30 days following start of full production capacity.
 - b. The emissions testing shall be conducted to demonstrate compliance with the allowable mass emission rate for VOC and the overall control efficiency limitation for VOC.
 - c. The following test methods shall be employed to demonstrate compliance with the allowable mass emission rate: Methods 1 through 4 and Method 25 or 25A of 40 CFR Part 60,

Appendix A. The test methods which must be employed to demonstrate compliance with the overall control efficiency limitations for VOC are specified below.

- d. The test(s) shall be conducted under maximum production rates unless otherwise specified or approved by the appropriate Ohio EPA District Office or local air agency.
 - e. The capture efficiency shall be determined using Methods 204 through 204F, as specified in 40 CFR Part 51, Appendix M, or the permittee may request to use an alternative method or procedure for the determination of capture efficiency in accordance with the USEPA's "Guidelines for Determining Capture Efficiency," dated January 9, 1995. (The Ohio EPA will consider the request, including an evaluation of the applicability, necessity and validity of the alternative, and may approve the use of the alternative if such approval does not contravene any other applicable requirement.) The control efficiency (i.e. the percent reduction in mass emissions between the inlet and outlet of the control system) shall be determined in accordance with the test methods and procedures specified in OAC Rule 3745-21-10. The test methods and procedures selected shall be based on a consideration of the diversity of the organic species present and their total concentration, and on a consideration of the potential presence of interfering gases.
2. Not later than 30 days prior to the proposed test date(s), this facility shall submit an "Intent to Test" notification to the appropriate Ohio EPA District Office or local air agency. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the tests, and the person(s) who will be conducting the tests. Failure to submit such notification for review and approval prior to the tests may result in the appropriate Ohio EPA District Office or local air agency's refusal to accept the results of the emission tests.
 3. Personnel from the appropriate Ohio EPA District Office or local air agency shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.
 4. A comprehensive written report on the results of the emissions tests shall be signed by the person or persons responsible for the tests and submitted to the appropriate Ohio EPA District Office or local air agency within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the appropriate Ohio EPA District Office or local air agency.
 5. Emissions Limitation:
1.5 tons per year of VOC from cleanup materials

Applicable Compliance Method:

Compliance shall be based upon the record keeping specified in Section C.4.e of these terms and conditions. The monthly estimate of VOC emissions from cleanup materials shall be summed to provide the annual emissions.

- 6. Emissions Limitation:**
85% overall reduction of VOC

Applicable Compliance Method:

Compliance shall be determined according to OAC Rule 3745-21-10(C) and the emissions testing procedures required in Section E.1 of these terms and conditions.

- 7. Emissions Limitation:**
3.65 pounds VOC per hour

Applicable Compliance Method:

Compliance shall be determined as part of emissions testing, required in Section E.1 of these terms and conditions.

- 8. Emissions Limitation:**
10 tons VOC per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be based upon the record keeping specified in Section C.5 of these terms and conditions.

- 9. Emissions Limitation:**
2.7 tons as a rolling, 12-month summation of combined hazardous air pollutants (HAPs), and 1.2 tons as a rolling, 12-month summation of individual HAPs

Applicable Compliance Method:

Compliance shall be based upon the record keeping specified in Section C.5 of these terms and conditions.

- 10. Formulation data or USEPA Method 24 or Method 24A (for coatings, inks and cleanup materials) shall be used to determine the organic compound contents of the coatings and cleanup materials.**

F. Miscellaneous Requirements

1. Prior to coating beverage cans (as defined in 40 CFR Part 60, Subpart WW), the permittee shall apply for an Ohio EPA Permit to Install.
2. Modeling to demonstrate compliance with the Ohio EPA's "Air Toxic Policy" was not necessary because the emissions unit's maximum annual emissions for each toxic compound will be less than 1.0 ton. OAC Chapter 3745-31 requires permittees to apply for and obtain a new or modified permit to install prior to making a "modification" as defined by OAC rule 3745-31-01. The permittee is hereby advised that changes in the composition of the materials, or use of new materials, that would cause the emissions of any pollutant that has a listed TLV to increase to above 1.0 ton per year may require the permittee to apply for and obtain a new permit to install.
3. Pursuant to OAC rule 3745-31-05(C), the following terms and conditions are federally enforceable: sections A., B., C., D., E. and F.1. and F.3. as well as Prevention of Significant Deterioration rules applicability.