

**CONSTRUCTION PERMIT  
OFFICE OF AIR MANAGEMENT**

**Elpaco Coatings Corporation  
28867 U. S. Highway 33  
Elkhart, Indiana 46516**

is hereby authorized to construct

the following facilities used in the manufacture of various types of coating:

- (a) Mixing/blending tank MT7, which has a capacity of 2,000 gallons,
- (b) Mixing/blending tanks MT8, and MT9, each has a capacity of 750 gallons, and
- (c) Mixing/blending tank MT10, which has a capacity of 660 gallons.

This permit is issued to the above mentioned company (herein known as the Permittee) under the provisions of 326 IAC 2-1 and 40 CFR 52.780, with conditions listed on the attached pages.

Construction Permit No.: CP-039-8959-00248	
Issued by:  Paul Dubenetzky, Branch Chief Office of Air Management	Issuance Date:

## Construction Conditions

### General Construction Conditions

1. That the data and information supplied with the application shall be considered part of this permit. Prior to any proposed change in construction which may affect allowable emissions, the change must be approved by the Office of Air Management (OAM).
2. That this permit to construct does not relieve the permittee of the responsibility to comply with the provisions of the Indiana Environmental Management Law (IC 13-11 through 13-20; 13-22 through 13-25; and 13-30), the Air Pollution Control Law (IC 13-17) and the rules promulgated thereunder, as well as other applicable local, state, and federal requirements.

### Effective Date of the Permit

3. That pursuant to IC 13-15-5-3, this permit becomes effective upon its issuance.
4. That pursuant to 326 IAC 2-1-9(b)(Revocation of Permits), the Commissioner may revoke this permit if construction is not commenced within eighteen (18) months after receipt of this approval or if construction is suspended for a continuous period of one (1) year or more.
5. That notwithstanding Construction Condition No. 6, all requirements and conditions of this construction permit shall remain in effect unless modified in a manner consistent with procedures established for modifications of construction permits pursuant to 326 IAC 2 (Permit Review Rules).

### First Time Operation Permit

6. That this document shall also become a first-time operation permit pursuant to 326 IAC 2-1-4 (Operating Permits) when, prior to start of operation, the following requirements are met:
  - (a) The attached affidavit of construction shall be submitted to the Office of Air Management (OAM), Permit Administration & Development Section, verifying that the facilities were constructed as proposed in the application. The facilities covered in the Construction Permit may begin operating on the date the Affidavit of Construction is postmarked or hand delivered to IDEM.
  - (b) If construction is completed in phases; i.e., the entire construction is not done continuously, a separate affidavit must be submitted for each phase of construction. Any permit conditions associated with operation start up dates such as stack testing for New Source Performance Standards (NSPS) shall be applicable to each individual phase.
  - (c) Permittee shall receive an Operation Permit Validation Letter from the Chief of the Permit Administration & Development Section and attach it to this document.
  - (d) The operation permit will be subject to annual operating permit fees pursuant to 326 IAC 2-7-19 (Fees).

- (e) The Permittee has submitted their Part 70 application (**T-039-8940-00248**) on September 2, 1997 for the existing source. The equipment being reviewed under this permit shall be incorporated in the submitted Part 70 application.

- 7. That when the facility is constructed and placed into operation the following operation conditions shall be met:

### **Operation Conditions**

#### General Operation Conditions

- 1. That the data and information supplied in the application shall be considered part of this permit. Prior to any change in the operation which may result in an increase in allowable emissions exceeding those specified in 326 IAC 2-1-1 (Construction and Operating Permit Requirements), the change must be approved by the Office of Air Management (OAM).
- 2. That the Permitted shall comply with the provisions of the Indiana Environmental Management Law (IC 13-11 through 13-20; 13-22 through 13-25; and 13-30), the Air Pollution Control Law (IC 13-17) and the rules promulgated thereunder.

#### Preventive Maintenance Plan

- 3. That pursuant to 326 IAC 1-6-3 (Preventive Maintenance Plans), the Permitted shall prepare and maintain a preventive maintenance plan, including the following information:
  - (a) Identification of the individual(s) responsible for inspecting, maintaining, and repairing emission control devices.
  - (b) A description of the items or conditions that will be inspected and the inspection schedule for said items or conditions.
  - (c) Identification of the replacement parts which will be maintained in inventory for quick replacement.

The preventive maintenance plan shall be submitted to IDEM, OAM upon request and shall be subject to review and approval.

#### Transfer of Permit

- 4. That pursuant to 326 IAC 2-1-6 (Transfer of Permits):
  - (a) In the event that ownership of this coatings manufacturing plant is changed, the Permitted shall notify OAM, Permit Branch, within thirty (30) days of the change. Notification shall include the date or proposed date of said change.
  - (b) The written notification shall be sufficient to transfer the permit from the current owner to the new owner.
  - (c) The OAM shall reserve the right to issue a new permit.

Permit Revocation

5. That pursuant to 326 IAC 2-1-9(a)(Revocation of Permits), this permit to construct and operate may be revoked for any of the following causes:
- (a) Violation of any conditions of this permit.
  - (b) Failure to disclose all the relevant facts, or misrepresentation in obtaining this permit.
  - (c) Changes in regulatory requirements that mandate either a temporary or permanent reduction of discharge of contaminants. However, the amendment of appropriate sections of this permit shall not require revocation of this permit.
  - (d) Noncompliance with orders issued pursuant to 326 IAC 1-5 (Episode Alert Levels) to reduce emissions during an air pollution episode.
  - (e) For any cause which establishes in the judgment of IDEM, the fact that continuance of this permit is not consistent with purposes of 326 IAC 2-1 (Permit Review Rules).

Availability of Permit

6. That pursuant to 326 IAC 2-1-3(l), the Permittee shall maintain the applicable permit on the premises of this source and shall make this permit available for inspection by the IDEM, or other public official having jurisdiction.

Annual Emission Reporting

7. That pursuant to 326 IAC 2-6 (Emission Reporting), the Permittee must annually submit an emission statement for the source. This statement must be received by April 15 of each year and must comply with the minimum requirements specified in 326 IAC 2-6-4. The annual statement must be submitted to:

Indiana Department of Environmental Management  
Technical Support and Modeling Section, Office of Air Management  
100 North Senate Avenue, P. O. Box 6015  
Indianapolis, Indiana 46206-6015

The annual emission statement covers the twelve (12) consecutive month time period starting December 1 and ending November 30.

Opacity Limitations

8. That pursuant to 326 IAC 5-1-2 (Visible Emission Limitations) except as provided in 326 IAC 5-1-3 (Temporary Exemptions), the visible emissions shall meet the following:
- (a) visible emissions shall not exceed an average of 40% opacity in 24 consecutive readings.
  - (b) visible emissions shall not exceed 60% opacity for more than a cumulative total of 15 minutes (60 readings) in a 6-hour period.

PM Process Operation

9. That pursuant to 326 IAC 6-3 (Process Operations), the pigment handling shall have an allowable PM emissions 0.93 pounds per hour. This PM allowable emission is based on the following equation:

$$E = 4.10 P^{0.67}$$

Where:

E = PM allowable emission in pound per hour  
P = Process weight rate in ton per hour

Fugitive Dust Emissions

10. That pursuant to 326 IAC 6-4 (Fugitive Dust Emissions), the permittee shall be in violation of 326 IAC 6-4 (Fugitive Dust Emissions) if any of the criteria specified in 326 IAC 6-4-2(1) through (4) are violated. Observations of visible emissions crossing the property line of the source at or near ground level must be made by a qualified representative of IDEM. [326 IAC 6-4-5(c)].

BACT Minor Limitation

11. (a) That VOC input usage in mixing/blending tanks M7 through MT10 shall be limited to 2,200,621.4 pounds per year (lb/yr), rolled on a monthly basis, which will result to a VOC emissions of 22 tons per year, based on a monthly basis. Therefore, the Best Available control Technology (BACT) requirements of 326 IAC 8-1-6 will not apply.
- (b) During the first 12 months of operation, the input VOC in tanks M7 through MT10 shall be limited such that the VOC input usage divided by the accumulated months of operation shall not exceed the limit specified.

New Source Toxics Control

12. Any change or modification which may increase the single HAP or any combination of HAPs emissions to 10 tons per year and 25 tons per year respectively, from mixing/blending tanks MT7 through MT10, covered in this permit shall require prior approval.

Reporting Requirements

13. That a log of information necessary to document compliance with operation permit condition nos. 11 and 12 shall be maintained. These records shall be kept for at least the past 36 month period and made available upon request to the Office of Air Management (OAM).

- (a) A quarterly summary shall be submitted to:

Indiana Department of Environmental Management  
Compliance Data Section, Office of Air Management  
100 North Senate Avenue, P.O. Box 6015  
Indianapolis, Indiana 46206-6015

within thirty (30) calendar days after the end of the quarter being reported in the format attached. These records shall include the solvent mixed, material safety data sheet (MSDS) and the date of use.

- (b) Unless otherwise specified in this permit, any notice, report, or other submissions required by this permit shall be timely if:
  - (i) Postmarked on or before the date it is due; or
  - (ii) Delivered by any other method if it is received and stamped by IDEM, OAM, on or before the date it is due.
- (c) All instances of deviations from any requirements of this permit must be clearly identified in such reports.
- (d) Any corrective actions taken as a result of an exceedance of a limit, an excursion from the parametric values, or a malfunction that may have caused excess emissions must be clearly identified in such reports.
- (e) The first report shall cover the period commencing the postmarked submission date of the Affidavit of Construction.

Open Burning

14. The Permitted shall not open burn any material except as provided in 326 IAC 4-1-3, 326 IAC 4-1-4 or 326 IAC 4-1-6. The previous sentence notwithstanding, the Permitted may open burn in accordance with an open burning approval issued by the Commissioner under 326 IAC 4-1-4.1.

Emergency Reduction Plans

15. Pursuant to 326 IAC 1-5-2 (Emergency Reduction Plans; Submission):

- (a) The Permitted shall prepare written emergency reduction plans (ERPs) consistent with safe operating procedures.
- (b) These ERPs shall be submitted for approval to:

Indiana Department of Environmental Management  
Compliance Branch, Office of Air Management  
100 North Senate Avenue, P.O. Box 6015  
Indianapolis, Indiana 46206-6015

within 180 calendar days from the issuance date of this permit.

- (c) If the ERP is disapproved by IDEM, OAM, the Permitted shall have an additional thirty (30) days to resolve the differences and submit an approvable ERP. If after this time, the Permitted does not submit an approvable ERP, IDEM, OAM, shall supply such a plan.

- (d) These ERPs shall state those actions that will be taken, when each episode level is declared, to reduce or eliminate emissions of the appropriate air pollutants.
- (e) Said ERPs shall also identify the sources of air pollutants, the approximate amount of reduction of the pollutants, and a brief description of the manner in which the reduction will be achieved.
- (f) Upon direct notification by IDEM, OAM, that a specific air pollution episode level is in effect, the Permitted shall immediately put into effect the actions stipulated in the approved ERP for the appropriate level. [326 IAC 1-5-3].

## Indiana Department of Environmental Management Office of Air Management

### Technical Support Document (TSD) for New Construction and Operation

#### Source Background and Description

Source Name:	Elpaco Coatings Corporation
Source Location:	28867 U. S. Highway 33, Elkhart, Indiana 46516
County:	Elkhart
Construction Permit No.:	CP-039-8959-00248
SIC Code:	2851
Permit Reviewer:	Aida De Guzman

The Office of Air Management (OAM) has reviewed an application from Elpaco Coatings Corporation relating to the construction and operation of the following new facilities used in the manufacture of various types of coating:

- (a) Mixing/blending tank MT7, which has a capacity of 2,000 gallons,
- (b) Mixing/blending tanks MT8, and MT9, each has a capacity of 750 gallons, and
- (c) Mixing/blending tank MT10, which has a capacity of 660 gallons.

#### Recommendation

The staff recommends to the Commissioner that the construction and operation be approved. This recommendation is based on the following facts and conditions:

Information, unless otherwise stated, used in this review was derived from the application and additional information submitted by the applicant.

The Part 70 permit application which include the proposed construction and the CWOP/OWOP facilities for the purposes of this review was received on September 2, 1997, with additional information received on October 31, 1997, November 5, 13, 1997, and December 2, 1997.

When the review of the source's Part 70 permit application will be made, the CWOP/OWOP facilities will be referred for enforcement.

A New Source Review is done on mixing/blending tanks MT7 through MT10 because they are new facilities that require construction as soon as possible, and the source's Part 70 permit application has not been scheduled for review.

#### Emissions Calculations

- (d) Mixing/blending tanks MT7 through MT10:

$$\begin{aligned} \text{VOC Emissions} &= 14,083,977.6 \text{ lb/yr} * 0.02 \text{ lb VOC/lb coating} * \text{ton}/2000 \text{ lb} \\ &= 140.8 \text{ ton/yr} \end{aligned}$$

- (b) PM Uncontrolled Emissions from pigment handling:  
= 0.11 ton/hr \* 20 lb/ton \* ton/2000 lb \* 8760 hr/yr  
= 9.6 ton/yr

This process is done in an enclosed bin and is not vented into the atmosphere. The building acts as a control unit and the efficiency will be at 90%.

$$\begin{aligned} \text{PM Controlled Emissions} &= 9.6 \text{ tons/yr (1-.90)} \\ &= 0.96 \text{ tons/yr} \end{aligned}$$

- (c) VOC Emissions Limitation:

*Note: The source has requested that their averaging time for recordkeeping be in a monthly rolling for their VOC and HAPs limits. Therefore, the total yearly limit will be reduced by one month's emission.*

New mixing/blending tanks MT7 through MT10 will be limited to 24 tons VOC/year. However, they will be limited further on their VOC emissions to decrease their single HAP emissions below 10 tons per year to avoid 326 IAC 2-1-3.4 (New Source Air Toxics Control). The limit is as follows:

Mixing/blending tanks MT7 through MT10  
Single HAP Limit = 9.4 tons/yr

$$\begin{aligned} \text{VOC limit} &= 9.4 \text{ ton/yr} / 92.7 \text{ ton/yr} * 140.8 \text{ ton/yr} \\ &= 14.3 \text{ tons/yr} * (11/12) \\ &= 13 \text{ tons/year} \end{aligned}$$

- (d) HAPs Emissions:

*Note: The worst case solvent is Xylene.*

$$\begin{aligned} &\text{Mixing/blending tanks MT7 through MT10:} \\ \text{Xylene} &= 121,722 \text{ gal/yr} * 21\% \text{ usage by the 4 tanks} \\ &= 25,561 \text{ gal/yr} * 100\% \text{ xylene} * 7.25 \text{ lb/gal} * \text{ton}/2000 \text{ lb} \\ &= 92.7 \text{ tons/yr} \end{aligned}$$

- (e) HAPs Limit:

$$\begin{aligned} \text{HAPs limit from MT7 through MT10:} \\ \text{Xylene} &= 24 \text{ tons/yr} / 107 \text{ ton/yr} * 70.6 \text{ ton/yr} \\ &= 15.84 \text{ tons/yr} \end{aligned}$$

This limit be reduced further as follows to avoid the air toxics control rule, 326 IAC 2-1-3.4:

$$\begin{aligned} \text{Xylene} &= 9.4 \text{ ton/yr} * (11/12) \\ &= 8.6 \text{ ton/yr} \end{aligned}$$

Methodology:  
 HAP limit = VOC limit, ton/yr / VOC pot'l emissions, ton/yr \* HAP pot'l. emissions, ton/yr

**Total Potential and Allowable Emissions**

Indiana Permit Allowable Emissions Definition (after compliance with applicable rules, based on 8,760 hours of operation per year at rated capacity):

Pollutant	Allowable Emissions (tons/year)	Potential Emissions (tons/year)
Particulate Matter (PM)	4.6	9.6
Particulate Matter (PM10)	4.6	9.6
Sulfur Dioxide (SO <sub>2</sub> )	0.0	0.0
Volatile Organic Compounds (VOC)	140.8	140.8
Carbon Monoxide (CO)	0.0	0.0
Nitrogen Oxides (NO <sub>x</sub> )	0.0	0.0
Single Hazardous Air Pollutant (HAP)	92.7	92.7
Combination of HAPs	92.7	92.7

- (a) Allowable emissions are determined from the applicability of rule 326 IAC 6-3. This mandates an allowable PM emissions on the pigment handling process using the following equation:
 
$$\begin{aligned}
 E &= 4.10 P^{0.67} \\
 &= 4.10 (0.11)^{0.67} \\
 &= 0.93 \text{ lb/hr} \\
 &= 4.1 \text{ ton/yr}
 \end{aligned}$$

Where:  
 E = PM allowable emissions in pounds per hour  
 P = Process weight rate in ton per hour  
 = 0.11 ton/hr
- (b) The allowable emissions based on the rules cited are less than the potential emissions, therefore, the allowable emissions are used for the permitting determination.
- (c) Allowable emissions (as defined in the Indiana Rule) of volatile organic compounds (VOC) are greater than 25 tons per year. Therefore, pursuant to 326 IAC 2-1, Sections 1 and 3, a construction permit is required.
- (d) Allowable emissions (as defined in the Indiana Rule) of a single hazardous air pollutant (HAP) are greater than 10 tons per year and/or the allowable emissions of any combination of the HAPs are greater than 25 tons per year. Therefore, pursuant to 326 IAC 2-1, a construction permit is required.

**County Attainment Status**

- (a) Volatile organic compounds (VOC) and oxides of nitrogen (NOx) are precursors for the formation of ozone. Therefore, VOC emissions are considered when evaluating the rule applicability relating to the ozone standards. Elkhart County has been designated as attainment or unclassifiable for ozone. Therefore, VOC and NOx emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 and 40 CFR 52.21.
- (b) Elkhart County has been classified as attainment or unclassifiable for all the other criteria pollutants. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 and 40 CFR 52.21.

**Source Status**

Existing Source PSD Definition (emissions after controls, based on the "Airs Facility Quick Look Report" dated July 24, 1997):

Pollutant	Emissions (ton/yr)
PM	1.87
PM10	1.87
SO <sub>2</sub>	0.0
VOC	11.9
CO	0.0
NO <sub>x</sub>	0.0

This existing source is not a major stationary source because no attainment pollutant is emitted at a rate of 250 tons per year or greater and it is not in one of the 28 listed source categories. Therefore, pursuant to 326 IAC 2-2, and 40 CFR 52.21, the PSD requirements do not apply.

**Proposed Modification**

PTE from the proposed modification (based on 8,760 hours of operation per year at rated capacity including enforceable emission control and production limit, where applicable):

Pollutant	PM (ton/yr)	PM10 (ton/yr)	SO <sub>2</sub> (ton/yr)	VOC (ton/yr)	CO (ton/yr)	NO <sub>x</sub> (ton/yr)
Proposed Modification	0.96	0.96	0.0	13.0	0.0	0.0
PSD Threshold Level	250	250	250	250	250	250

- (a) The amount of coating per year produced by mixing/blending tanks MT7 through MT10 will be limited, in order to stay below 25 tons per year. However, this was reduced further to 13 tons of VOC per year, in order for these tanks' single HAP emissions will stay below 10 tons per year. Therefore, 326 IAC 8-1-6 requirements, and 326 IAC 2-1-3.4, New Source Air Toxics Control rule will not apply.

*Note: Since VOC emission is limited, the HAPs emission will be scaled down. See calculation on page 2 of this TSD.*

- (b) This modification to an existing minor stationary source is not major because the emission increase is less than the PSD significant levels. Therefore, pursuant to 326 IAC 2-2, and 40 CFR 52.21, the PSD requirements do not apply.

### **Part 70 Permit Determination**

326 IAC 2-7 (Part 70 Permit Program)

This existing source is subject to this rule, and has submitted their Part 70 (T-039-8940-00248) application on September 2, 1997. The equipment being reviewed under this permit shall be incorporated in the submitted Part 70 application.

### **Federal Rule Applicability**

- (a) **New Source Performance Standards**  
40 CFR § 60.740, Subpart VVV - Standards of Performance for Polymeric Coatings of Supporting Substrate Facilities: This subpart apply to each coating operation and any onsite coating mix preparation equipment used to prepare coatings for the polymeric coating of supporting substrates.

This subpart is not applicable to this source because its coating operation and coating mix equipment are not used to prepare coatings for the polymeric coating of supporting substrate.

- (b) 40 CFR § 60.110b, Subpart Kb - Standards of performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for which Construction, Reconstruction, or Modification commenced after July 23, 1984.

This subpart is not applicable to tanks MT7 through MT10, because these tanks are process tanks and not storage tanks.

- (c) 40 CFR § 60.610, Subpart III - Standards of Performance for Volatile Organic Compounds (VOC) Emissions From the Synthetic organic Chemical Manufacturing Industry (SOCMI) Air Oxidation Unit Process.

This subpart is not applicable to this source because the manufacture of paintings/coatings which the source does, does not involve any air oxidation reaction to produce one or more organic compounds.

- (d) There are no other New Source Performance Standards (326 IAC 12) and 40 CFR Part 60 applicable to this facility.

- (e) **National Emission Standard for Hazardous Air Pollutants (NESHAPs)**  
There are no NESHAPs (40 CFR Part 63) applicable to this source.

### State Rule Applicability

- (a) 326 IAC 2-6 (Emission Reporting)  
This facility is subject to 326 IAC 2-6 (Emission Reporting), because the source emits more than 10 tons/yr for Elkhart County. Pursuant to this rule, the owner/operator of this facility must annually submit an emission statement of the facility. The annual statement must be received by April 15 of each year and must contain the minimum requirements as specified in 326 IAC 2-6-4.
- (b) 326 IAC 2-1-3.4 (New Source Toxics Control)  
Mixing tanks MT7 through MT10 are new facilities and are major for single HAP emissions. However, the source had requested a limit of 24 tons per year in their VOC emissions, which decreased or scaled down their single HAP emissions to 15.8 tons per year. With this VOC limit these facilities are still major for single HAP at above 10 tons per year. Therefore, the VOC emissions will be limited further to decrease their single HAP emissions below 10 tons per year. The limit is as follows:

$$\begin{aligned}\text{Single HAP Limit} &= 9.4 \text{ tons/yr (11/12)} \\ &= 8.6 \text{ tons/yr}\end{aligned}$$

$$\begin{aligned}\text{VOC limit} &= 9.4 \text{ ton/yr} / 92.7 \text{ ton/yr} * 140.8 \text{ ton/yr} \\ &= 14.3 \text{ tons/yr} * (11/12) \\ &= 13 \text{ tons/year}\end{aligned}$$

Methodology:

$$\text{VOC limit, ton/yr} = \text{HAP limit, ton/yr} / \text{HAP pot'l. emission, ton/yr} * \text{VOC pot'l emission, ton/yr}$$

These facilities are not subject to this rule, because their single HAP emission is limited below 10 tons per year.

- (c) 326 IAC 8-1-6 (General Reduction Requirements)  
Mixing/Blending tanks MT7 through MT10, with potential VOC emissions of 140.8 tons per year are limited to 13 tons per year. Therefore, the requirements under 326 IAC 8-1-6 does not apply for these tanks.
- (d) 326 IAC 8 (Volatile Organic Compounds Rules)  
There are no other 326 IAC 8 rules that will apply to these facilities, because they do not fit any category listed in the rules.
- (e) 326 IAC 6-3 (Process weight: Allowable PM emissions)  
This mandates an allowable PM emissions on the pigment handling process using the following equation:

$$\begin{aligned}E &= 4.10 P^{0.67} \\ &= 4.10 (0.11)^{0.67} \\ &= 0.93 \text{ lb/hr} \\ &= 4.1 \text{ ton/yr}\end{aligned}$$

Where:

E = PM allowable emissions in pounds per hour  
P = Process weight rate in ton per hour  
= 0.11 ton/hr

The source is in compliance with this rule, because this process is done in an enclosed bin and is not vented into the atmosphere. The building acts as a control unit, which reduces their PM emissions. See calculations on page 2 of this TSD.

### **Air Toxic Emissions**

Indiana presently requests applicants to provide information on emissions of the 189 hazardous air pollutants set out in the Clean Air Act Amendments of 1990. These pollutants are either carcinogenic or otherwise considered toxic and are commonly used by industries. They are listed as air toxics on the Office of Air Management (OAM) Construction Permit Application Form Y.

- (a) This modification will emit levels of air toxics less than those which constitute a major source according to Section 112 of the 1990 Amendments to Clean Air Act.
  
- (b) See calculations on page 3 and 6 of this TSD for detailed air toxic calculations.

### **Conclusion**

The construction of these mixing/blending tanks MT1 through MT10 will be subject to the conditions of the attached proposed **Construction Permit No. CP-039-8959-00248**.

## Indiana Department of Environmental Management Office of Air Management

### Addendum to the Technical Support Document for New Construction and Operation

Source Name: Elpaco Coatings Corporation  
 Source Location: 28867 U. S. Highway 33, Elkhart, Indiana 46516  
 County: Elkhart  
 Construction Permit No.: CP-039-8959-00248  
 SIC Code: 2851  
 Permit Reviewer: Aida De Guzman

On December 15, 1997, the Office of Air Management (OAM) had a notice published in the Truth Publishing, Elkhart, Indiana, stating that Elpaco Coatings had applied for a construction permit to construct and operate four (4) mixing/blending tanks, used in the manufacture of various types of coating. The notice also stated that OAM proposed to issue a permit for this installation and provided information on how the public could review the proposed permit and other documentation. Finally, the notice informed interested parties that there was a period of thirty (30) days to provide comments on whether or not this permit should be issued as proposed.

Upon further review, the OAM made the following changes in the TSD and proposed construction permit:

**TSD:** (Pages 1 through 3 of 7)

In the painting industry 2% is considered loss in the solvent used, and assumed to be emitted.

**From:**

- (a) Mixing/blending tanks MT7 through MT10:

$$\begin{aligned} \text{VOC Emissions} &= 14,083,977.6 \text{ lb/yr} * 0.02 \text{ lb VOC/lb coating} * \text{ton}/2000 \text{ lb} \\ &= 140.8 \text{ ton/yr} \end{aligned}$$

- (b) PM Uncontrolled Emissions from pigment handling:

$$\begin{aligned} &= 0.11 \text{ ton/hr} * 20 \text{ lb/ton} * \text{ton}/2000 \text{ lb} * 8760 \text{ hr/yr} \\ &= 9.6 \text{ ton/yr} \end{aligned}$$

This process is done in an enclosed bin and is not vented into the atmosphere. The building acts as a control unit and the efficiency will be at 90%.

$$\begin{aligned} \text{PM Controlled Emissions} &= 9.6 \text{ tons/yr} (1-.90) \\ &= 0.96 \text{ tons/yr} \end{aligned}$$

- (c) VOC Emissions Limitation:

*Note: The source has requested that their averaging time for recordkeeping be in a monthly rolling for their VOC and HAPs limits. Therefore, the total yearly limit will be reduced by one month's emission.*

New mixing/blending tanks MT7 through MT10 will be limited to 24 tons VOC/year. However, they will be limited further on their VOC emissions to decrease their single HAP

emissions below 10 tons per year to avoid 326 IAC 2-1-3.4 (New Source Air Toxics Control). The limit is as follows:

Mixing/blending tanks MT7 through MT10  
Single HAP Limit = 9.4 tons/yr

VOC limit = 9.4 ton/yr / 92.7 ton/yr \* 140.8 ton/yr  
= 14.3 tons/yr \* (11/12)  
= 13 tons/year

(d) HAPs Emissions:

*Note: The worst case solvent is Xylene.*

Mixing/blending tanks MT7 through MT10:  
Xylene = 121,722 gal/yr \* 21% usage by the 4 tanks  
= 25,561 gal/yr \* 100% xylene \* 7.25 lb/gal \* ton/2000 lb  
= 92.7 tons/yr

(e) HAPs Limit:

HAPs limit from MT7 through MT10:  
Xylene = 24 tons/yr / 107 ton/yr \* 70.6 ton/yr  
= 15.84 tons/yr

This limit be reduced further as follows to avoid the air toxics control rule, 326 IAC 2-1-3.4:

Xylene = 9.4 ton/yr \* (11/12)  
= 8.6 ton/yr

Methodology:

HAP limit = VOC limit, ton/yr / VOC pot'l emissions, ton/yr \* HAP pot'l. emissions, ton/yr

**To:** (Changes are bolded for emphasis)

(a) Mixing/blending tanks MT7 through MT10:

VOC emissions = 14,083,977.6 lb/yr \* 0.02 lb VOC/lb coating \* ton/2000 lb  
= 140.8 tons/yr

(b) PM Uncontrolled Emissions from pigment handling:

= 0.11 ton/hr \* 20 lb/ton \* ton/2000 lb \* 8760 hr/yr  
= 9.6 ton/yr

This process is done in an enclosed bin and is not vented into the atmosphere. The building acts as a control unit and the efficiency will be at 90%.

PM Controlled Emissions = 9.6 tons/yr (1-.90)  
= 0.96 tons/yr

(c) **VOC Emissions Limitation:**

Since 140.8 tons/year exceeds 25 tons/yr, these tanks are limited to 24 ton/yr to avoid the requirements under 326 IAC 8-1-6.

*The source has requested that their averaging time for recordkeeping be in a monthly rolling for their VOC limit. Therefore, the yearly limit is determined as follows:*

$$\begin{aligned} \text{VOC Limit} &= 24 \text{ ton/yr} * (11/12) \\ &= 22 \text{ ton/yr} \end{aligned}$$

$$\begin{aligned} \text{VOC Input Usage Limit} &= 22 \text{ ton/yr, VOC limit} / 140.8 \text{ ton/yr, pot'l VOC emissions} \\ &\quad * 14,083,977.6 \text{ lb/yr, maximum solvent usage} \\ &= 2,200,621.4 \text{ lb/yr} \end{aligned}$$

The HAPs emission calculation did not consider that only 2% of the solvent is emitted. Therefore, the HAPs calculation is revised as follows:

(d) HAP Emissions:

*Note: The worst case solvent is Xylene.*

$$\begin{aligned} &\text{Mixing/blending tanks MT7 through MT10:} \\ \text{Xylene} &= 121,722 \text{ gal/yr} * 21\% \text{ usage by the 4 tanks} \\ &= 25,561 \text{ gal/yr} * 100\% \text{ xylene} * 7.25 \text{ lb/gal} * \text{ton}/2000 \text{ lb} * 2\% \\ &= 2.0 \text{ tons/yr} \end{aligned}$$

Also, VOC will not be reduced further to decrease their single HAP emission as previously done in the original TSD, since the single HAP emission is less than 10 tons/yr.

Methodology:

$$\text{HAP limit} = \text{VOC limit, ton/yr} / \text{VOC pot'l emissions, ton/yr} * \text{HAP pot'l. emissions, ton/yr}$$

**Construction Permit:**

As a result of the above calculations, OAM has revised conditions nos. 11 and 12 in the proposed construction permit. Secondly, the proposed permit, limits the VOC and HAPs emissions, instead of the VOC and HAPs input usage. The revision is as follows:

**From:**

BACT Minor Limitation

11. That mixing/blending tanks M7 through MT10 VOC emissions shall be limited to 13.0 tons per year, rolled on a monthly basis. Therefore, the Best Available control Technology (BACT) requirements of 326 IAC 8-1-6 will not apply.

During the first 12 months of operation, the input VOC mixed or blended in tanks M7 through MT10 shall be limited such that the resulting emissions divided by the accumulated months of operation shall not exceed the limit specified.

New Source Toxics Control

12. (a) That mixing/blending tanks MT7 through MT10 single HAP emissions shall be limited to 8.6 ton per twelve month rolling basis. Compliance with this limit will make 326 IAC 2-1-3.4, New Air Toxics Control Rule not applicable.

During the first twelve (12) months of operation, the input of HAP usage shall be limited such that the resulting emissions divided by the accumulated months of operation shall not exceed the limit specified.

- (b) Any change or modification which may increase the combination of HAPs emissions to 25 tons per year from mixing/blending tanks MT7 through MT10, covered in this permit shall require prior approval.

To: Note: Changes are bolded for emphasis

BACT Minor Limitation

11. (a) **That VOC input usage in mixing/blending tanks M7 through MT10 shall be limited to 2,200,621.4 pounds per year (lb/yr), rolled on a monthly basis, which will result to a VOC emissions of 22 tons per year, based on a monthly basis. Therefore, the Best Available control Technology (BACT) requirements of 326 IAC 8-1-6 will not apply.**
- (b) **During the first 12 months of operation, the input VOC in tanks M7 through MT10 shall be limited such that the VOC input usage divided by the accumulated months of operation shall not exceed the limit specified.**

New Source Toxics Control

12. **Any change or modification which may increase the single HAP or any combination of HAPs emissions to 10 tons per year and 25 tons per year respectively, from mixing/blending tanks MT7 through MT10, covered in this permit shall require prior approval.**

*Reporting Form (page 8 of 9, in the proposed construction permit) for HAPs emissions is no longer necessary, because the HAPs emissions are minor.*