CONSTRUCTION PERMIT
OFFICE OF AIR MANAGEMENT

H.A. Parts Products of Indiana Company
2200 State Route 240 East
Greencastle, Indiana 46135

is hereby authorized to construct

a modification to an existing plastic automotive trim surface coating operation, consisting of the following equipment:

(a) one (1) paint line, identified as the Large Parts Line, consisting of one (1) paint spray booth and one (1) infrared bake oven, utilizing a High Volume Low Pressure (HVLP) spray application system, coating a maximum of 150 plastic automobile trim pieces per hour, using a closed loop internal mix system and a water wash system for overspray control, and exhausting through five (5) stacks, identified as S5, S8, S9, S12, and S17; and

(b) one (1) paint line, identified as the Small Parts Line, consisting of one (1) paint spray booth, identified as Booth 1, and one (1) infrared bake oven, utilizing a High Volume Low Pressure (HVLP) spray application system, coating a maximum of 150 plastic automobile trim pieces per hour, using a closed loop internal mix system and a water wash system for overspray control, and exhausting through five (5) stacks, identified as S6, S10, S13, S15, and S18.

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-133-8608-00019	
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 2-1-7.1(Fees).

   (e) Pursuant to 326 IAC 2-1-4, the Permittee shall apply for an operation permit renewal at least ninety (90) days prior to the expiration date established in the validation letter. The operation permit issued shall contain as a minimum the conditions in the Operation Conditions section of this permit.

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 permittee 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 Permittee 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 plastic automotive trim surface coating operation is changed, the Permittee 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.

Malfunction Condition

7. That pursuant to 326 IAC 1-6-2 (Records; Notice of Malfunction):

(a) A record of all malfunctions, including startups or shutdowns of any facility or emission control equipment, which result in violations of applicable air pollution control regulations or applicable emission limitations shall be kept and retained for a period of three (3) years and shall be made available to the Indiana Department of Environmental Management (IDEM), Office of Air Management (OAM) or appointed representative upon request.

(b) When a malfunction of any facility or emission control equipment occurs which lasts more than one (1) hour, said condition shall be reported to OAM, using the Malfunction Report Forms (2 pages). Notification shall be made by telephone or facsimile, as soon as practicable, but in no event later than four (4) daytime business hours after the beginning of said occurrence.

(c) Failure to report a malfunction of any emission control equipment shall constitute a violation of 326 IAC 1-6, and any other applicable rules. Information of the scope and expected duration of the malfunction shall be provided, including the items specified in 326 IAC 1-6-2(a)(1) through (6).

(d) Malfunction is defined as any sudden, unavoidable failure of any air pollution control equipment, process, or combustion or process equipment to operate in a normal and usual manner. [326 IAC 1-2-39]

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.

Fugitive Dust Emissions

9. 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)].

Particulate Matter Limitation

10. That pursuant to 326 IAC 6-3 (Process Operations):

(a) The water wash system for particulate matter overspray control shall be in operation at all times when the two (2) paint lines are in operation.

(b) The two (2) paint lines shall comply with 326 IAC 6-3-2(c) using the following equation:

$E = 4.10P^{0.67}$ where: E = rate of emission in pounds per hour,
P = process weight in tons per hour.

(c) Daily inspections shall be performed to verify the placement, integrity and particulate loading of the water wash system.

(d) Additional inspections and preventive measures shall be performed as prescribed in the Preventive Maintenance Plan.

Volatile Organic Compound

11. That pursuant to 326 IAC 2-1-3(i)(8), a log of information necessary to document compliance with operation permit condition no. 12 and records of surface coating quantities and organic solvent contents shall be maintained for a minimum period of 36 months and made available upon request of the Office of Air Management (OAM). Any change or modification which may increase (a) potential VOC emissions to 100 tons per year; (b) potential single HAP emissions to 10 tons per year; or (c) the potential emissions of any combination of HAPs to 25 tons per year, from the equipment covered in this permit, shall obtain a Part 70 permit pursuant to 326 IAC 2-7 before such change may occur.

BACT Condition

12. That pursuant to 326 IAC 8-1-6, the Best Available Control Technology (BACT) for the two (2) paint lines (the Large Parts Line and the Small Parts Line) shall be the use of: (a) a high volume low pressure (HVLP) spray application system with a closed loop internal mix manifold system; and (b) a water wash system for overspray control, consisting of a water fall and water pan, at all times during which the Large Parts Paint Line and the Small Parts Paint Line are in operation. The total amount of VOC delivered to the applicators of the Large Parts Line and the Small Parts Line shall not exceed 5.3 tons per month.

Open Burning

13. That the permittee 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.

MALFUNCTION REPORT

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR MANAGEMENT
FAX NUMBER - (317) 233-5967

This form should only be used to report malfunctions applicable to Rule 326 IAC 1-6 and to qualify for the exemption under 326 IAC 1-6-4.

THIS FACILITY MEETS THE APPLICABILITY REQUIREMENTS BECAUSE: IT HAS POTENTIAL TO EMIT 25 LBS/HR PARTICULATES ?_____, 100 LBS/HR VOC ?_____, 100 LBS/HR SULFUR DIOXIDE ?_____ OR 2000 LBS/HR OF ANY OTHER POLLUTANT ?_____ EMISSIONS FROM MALFUNCTIONING CONTROL EQUIPMENT OR PROCESS EQUIPMENT CAUSED EMISSIONS IN EXCESS OF APPLICABLE LIMITATION _____.

THIS MALFUNCTION RESULTED IN A VIOLATION OF: 326 IAC _____ OR, PERMIT CONDITION # _____ AND/OR PERMIT LIMIT OF _____

THIS INCIDENT MEETS THE DEFINITION OF 'MALFUNCTION' AS LISTED ON THE NEXT PAGE ? Y N

THIS MALFUNCTION IS OR WILL BE LONGER THAN THE ONE (1) HOUR REPORTING REQUIREMENT ? Y N

COMPANY: H.A. Parts Products of Indiana Company PHONE NO. (765) 653-2000

LOCATION: (CITY AND COUNTY) Greencastle, Putnam County

PERMIT NO. 133-8608 AFS PLANT ID: 133-00019 AFS POINT ID: _____ INSP: Marc Goldman
CONTROL/PROCESS DEVICE WHICH MALFUNCTIONED AND REASON: _____
_____

DATE/TIME MALFUNCTION STARTED: _____/_____/ 19____ _____ AM / PM

ESTIMATED HOURS OF OPERATION WITH MALFUNCTION CONDITION: _____

DATE/TIME CONTROL EQUIPMENT BACK-IN SERVICE_____/_____/ 19____ _____ AM/PM

TYPE OF POLLUTANTS EMITTED: TSP, PM-10, SO2, VOC, OTHER: _____

ESTIMATED AMOUNT OF POLLUTANT EMITTED DURING MALFUNCTION: _____

_____

MEASURES TAKEN TO MINIMIZE EMISSIONS: _____

_____

REASONS WHY FACILITY CANNOT BE SHUTDOWN DURING REPAIRS:

CONTINUED OPERATION REQUIRED TO PROVIDE ESSENTIAL* SERVICES: _____
CONTINUED OPERATION NECESSARY TO PREVENT INJURY TO PERSONS: _____
CONTINUED OPERATION NECESSARY TO PREVENT SEVERE DAMAGE TO EQUIPMENT: _____
INTERIM CONTROL MEASURES: (IF APPLICABLE) _____
_____
_____

MALFUNCTION REPORTED BY: _____ TITLE: _____
(SIGNATURE IF FAXED)

MALFUNCTION RECORDED BY: _____ DATE: _____ TIME: _____

Please note - This form should only be used to report malfunctions applicable to Rule 326 IAC 1-6 and to qualify for the exemption under 326 IAC 1-6-4.

326 IAC 1-6-1 Applicability of rule

Sec. 1. The requirements of this rule (326 IAC 1-6) shall apply to the owner or operator of any facility which has the potential to emit twenty-five (25) pounds per hour of particulates, one hundred (100) pounds per hour of volatile organic compounds or SO2, or two thousand (2,000) pounds per hour of any other pollutant; or to the owner or operator of any facility with emission control equipment which suffers a malfunction that causes emissions in excess of the applicable limitation.

326 IAC 1-2-39 "Malfunction" definition

Sec. 39. Any sudden, unavoidable failure of any air pollution control equipment, process, or combustion or process equipment to operate in a normal and usual manner. (Air Pollution Control Board; 326 IAC 1-2-39; filed Mar 10, 1988, 1:20 p.m. : 11 IR 2373)

***Essential services** are interpreted to mean those operations, such as, the providing of electricity by power plants. Continued operation solely for the economic benefit of the owner or operator shall not be sufficient reason why a facility cannot be shutdown during a control equipment shutdown.

If this item is checked on the front, please explain rationale:

_____

_____

Indiana Department of Environmental Management
Office of Air Management

Technical Support Document (TSD) for New Construction and Operation

Source Background and Description

Source Name:	H.A. Parts Products of Indiana Company
Source Location:	2200 State Route 240 East, Greencastle, Indiana 46135
County:	Putnam
Construction Permit No.:	CP-133-8608-00019
SIC Code:	3714
Permit Reviewer:	Trish Earls/EVP

The Office of Air Management (OAM) has reviewed an application from H.A. Parts Products of Indiana Company relating to the construction and operation of a modification to an existing plastic automotive trim surface coating operation, consisting of the following equipment:

(a) one (1) paint line, identified as the Large Parts Line, consisting of one (1) paint spray booth and one (1) infrared bake oven, utilizing a High Volume Low Pressure (HVLP) spray application system, coating a maximum of 150 plastic automobile trim pieces per hour, using a closed loop internal mix system and a water wash system for overspray control, and exhausting through five (5) stacks, identified as S5, S8, S9, S12, and S17; and

(b) one (1) paint line, identified as the Small Parts Line, consisting of one (1) paint spray booth, identified as Booth 1, and one (1) infrared bake oven, utilizing a High Volume Low Pressure (HVLP) spray application system, coating a maximum of 150 plastic automobile trim pieces per hour, using a closed loop internal mix system and a water wash system for overspray control, and exhausting through five (5) stacks, identified as S6, S10, S13, S15, and S18.

Stack Summary

Stack ID	Operation	Height (feet)	Diameter (feet)	Flow Rate (acfm)	Temperature (^{0}F)
1	Hot Water Rinse	30	1.5	4,236	ambient
2	Hot Water Rinse	30	1.5	4,236	ambient
3	Dry Off Oven	30	0.6	4,236	ambient
4	Cooling Zone	30	1.8	7,744	ambient
5	Primer Coat	30	3.0	20,121	ambient
6	Primer Coat	30	3.0	20,121	ambient
7	Set Enclosure	30	0.6	706	ambient
8	Base Coat	30	3.3	28,864	ambient
9	Base Coat	30	3.3	28,864	ambient
10	Base Coat	30	3.3	28,864	ambient
11	Set Enclosure	30	2.9	7,460	ambient
12	Clear Coat Booth	30	2.9	21,261	ambient

13	Clear Coat Booth	30	2.9	21,261	ambient
14	Set Enclosure	30	0.9	2,238	ambient
15	Clear Coat Booth	30	0.6	1,119	ambient
16	Set Enclosure	30	0.6	746	ambient
17	Bake Oven	30	0.6	746	224
18	Bake Oven	30	0.6	746	224
19	Air Cool	30	1.3	2,984	ambient

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.

An application for the purposes of this review was received on May 21, 1997, with additional information received on July 15, 1997.

Emissions Calculations

See Appendix A (Emissions Calculation Spreadsheets) for detailed calculations (2 pages).

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)	249.0	48.4
Particulate Matter (PM10)	249.0	48.4
Sulfur Dioxide (SO_2)	--	0.0
Volatile Organic Compounds (VOC)	249.0	63.9
Carbon Monoxide (CO)	--	0.0
Nitrogen Oxides (NO_x)	--	0.0
Single Hazardous Air Pollutant (HAP)	--	5.9
Combination of HAPs	--	8.5

(a) Allowable emissions are determined from the applicability of rule 326 IAC 2-2 (Prevention of Significant Deterioration (PSD)).

(b) The potential emissions before control are less than the allowable emissions, therefore, the potential emissions before control are used for the permitting determination.

(c) Allowable emissions (as defined in the Indiana Rule) of PM, PM-10, and 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) Pursuant to the IDEM's Policy on Air Toxic Rules, dated December 13, 1995, IDEM will not enforce the provisions of 326 IAC 2-1-1(b)(1)(H), as adopted by the Air Board on March 10, 1994. This means that modification of a major source of HAPs which will increase the allowable emissions of any one (1) HAP by 4 tons per year or any combination of HAPs by 10 tons per year will not be required to obtain a construction permit. The Policy is in effect immediately and will continue to be in effect until the effective date of amendments to Indiana' s rule for new and modified sources of HAPs. This Policy may be extended or modified at IDEM's discretion.

However, this construction permit is required because of the requirements of 326 IAC 2-1, Sections 1 and 3.

County Attainment Status

(a) Volatile organic compounds (VOC) and oxides of nitrogen are precursors for the formation of ozone. Therefore, VOC and NOx emissions are considered when evaluating the rule applicability relating to the ozone standards. Putnam 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) Putnam County has been classified as attainment or unclassifiable for all 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.

(c) Fugitive Emissions
Since this type of operation is not one of the 28 listed source categories under 326 IAC 2-2 and since there are no applicable New Source Performance Standards that were in effect on August 7, 1980, the fugitive PM emissions are not counted toward determination of PSD and Emission Offset applicability.

Source Status

Existing Source PSD Definition (emissions after controls, based on 8,760 hours of operation per year at rated capacity):

Pollutant	Emissions (ton/yr)
PM	2.4
PM10	2.4
SO_2	0.0
VOC	34.2
CO	0.0
NO_x	0.0

(a) This existing source is **not** a major stationary source because no attainment regulated pollutant is emitted at a rate of 250 tons per year or more, and it is not in one of the 28

listed source categories.

(b) These emissions were based on the Construction Permit No. CP-133-5802-00019 issued to the source on October 14, 1996.

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_2 (ton/yr)	VOC (ton/yr)	CO (ton/yr)	NO_x (ton/yr)
Proposed Modification	2.9	2.9	0.0	63.9	0.0	0.0
PSD Threshold Level	250	250	250	250	250	250

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 not subject to the Part 70 Permit requirements because the potential to emit (PTE) of:

(a) each criteria pollutant is less than 100 tons per year,
(b) a single hazardous air pollutant (HAP) is less than 10 tons per year, and
(c) any combination of HAPs is less than 25 tons/year.

This status is based on all the air approvals issued to the source. This status has been verified by the OAM inspector assigned to the source.

Federal Rule Applicability

There are no New Source Performance Standards (326 IAC 12) and 40 CFR Part 63 applicable to this facility.

40 CFR Part 60.390, Subpart MM (Standards of Performance for Automobile and Light Duty Truck Surface Coating Operations)

The provisions of 40 CFR Part 60.390, Subpart MM are not applicable to this modification. This rule applies to affected facilities in an automobile or light-duty truck assembly plant. Exempt from this rule are operations used to coat plastic body components or all-plastic automobile or light duty truck bodies on separate coating lines. H.A. Part Products of Indiana Company coats plastic automobile trim, not vehicle bodies, and does not assemble automobiles or light-duty trucks, therefore, the requirements of 40 CFR Part 60.390, Subpart MM do not apply.

State Rule Applicability

326 IAC 2-6 (Emission Reporting)

This source is not subject to 326 IAC 2-6 (Emission Reporting), because the source is located in Putnam County and its potential to emit VOC (98.1 tons/yr) is less than 100 tons/yr.

326 IAC 5-1-2 (Opacity Regulations - Visible Emission Limitations)

This source is subject to 326 IAC 5-1-2 (Visible Emission Limitations) which limits visible emissions from a source or facility. Pursuant to 326 IAC 5-1-2 (1), visible emissions shall meet the following limitations:

(a) visible emissions shall not exceed an average of forty percent (40%) opacity in twenty-four (24) consecutive readings; and

(b) visible emissions shall not exceed sixty percent (60%) opacity for more than a cumulative total of fifteen (15) minutes in a six hour period.

326 IAC 6-3-2 (Particulate Emission Limitations)

The PM overspray emissions from the two (2) paint spray booths shall comply with 326 IAC 6-3-2(c) using the following equation:

$E = 4.10P^{0.67}$ where: E = rate of emission in pounds per hour,
P = process weight in tons per hour.

The source will comply with 326 IAC 6-3-2 by using a water wash system for overspray control.

326 IAC 6-4 (Fugitive Dust Emissions)

This source is subject to 326 IAC 6-4 for fugitive dust emissions. Pursuant to 326 IAC 6-4 (Fugitive Dust Emissions), fugitive dust shall not be visible crossing the boundary or property line of a source. Observances of visible emissions crossing property lines may be refuted by factual data expressed in 326 IAC 6-4-2(1), (2) or (3).

326 IAC 8-2-2 (Automobile and Light Duty Truck Coating Operations)

This modification is not subject to 326 IAC 8-2-2. The two (2) paint lines only coat plastic automobile trim and do not assemble or coat automobile bodies, therefore, the requirements of 326 IAC 8-2-2 do not apply.

326 IAC 8-1-6 (New Facilities, General Reduction Requirements)

This modification is subject to the provisions of 326 IAC 8-1-6. This rule requires all facilities constructed after January 1, 1980, which have potential VOC emission rates of 25 or more tons per year, and which are not otherwise regulated by other provisions of 326 IAC 8, to reduce VOC emissions using Best Available Control Technology (BACT). H.A. Parts Products of Indiana Company submitted a BACT analysis on May 21, 1997. The control options considered in the BACT analysis were:

1) Catalytic Thermal Incineration
2) Dip Coating
3) Electrostatic Coating
4) Using Water Based Coating Material

5) No Control with the use of High Volume Low Pressure (HVLP) Spray Guns with Closed-Loop Internal Mix Manifold System, Water Fall and Water Pan

Options 2 through 4 were determined to be technically infeasible for the following reasons:

2) A dip coating process is not technically feasible because utilizing this application method can result in inconsistent thickness and coverage of the paint.
3) An electrostatic coating is not technically feasible for coating substrates that are not conductive such as plastic automotive trims.
4) Available water based coating systems on the market can not meet the quality specifications required by all of H.A. Parts Products of Indiana Company's customers.

The technically feasible options are catalytic thermal incineration and HVLP spray guns with closed-loop internal mix manifold system. A cost analysis was performed to determine the economic feasibility of catalytic thermal incineration for the VOC emissions from this modification. The cost analysis is based on potential VOC emissions of 63.9 tons per year.
The tables below show the results of the cost analysis.

(A) Capital Cost

Option	Base Price	Direct Cost	Indirect Cost	Total
Catalytic Thermal Incineration	1,500,000	475,000	250,000	2,225,000

(B) Annual Operating, Maintenance & Recovery Cost

Option	Direct Cost	Indirect Cost	Capital Recovery Cost	Total
Catalytic Thermal Incineration	357,000	57,000	300,000	714,000

(C) Evaluation

Option	Potential Emissions (tons/yr)	Emissions Removed (tons/yr)	Control Efficiency (%)	$/ton Removed
Catalytic Thermal Incineration	64.0	57.6	90	12,396

Methodology:
Emissions removed = (limited potential emissions from warehouse) * (control efficiency)
$/ton removed = total annual cost / emissions removed

The cost breakdown is as follows:

1. Capital Cost
   a) Base price: purchase price, auxiliary equipment, instruments, controls, taxes and freight.
   b) Direct installation cost: foundations/supports, erection/handling, electrical, piping, insulation, painting, site preparation and building/facility.
   c) Indirect installation cost: engineering, supervision, construction/filed expenses,

construction fee, start up, performance test, model study and contingencies.

2. Annual Cost
   a) Direct operating cost: operating labor (operator, supervisor), labor and material maintenance, operating materials, utilities (electricity, gas).
   b) Indirect operating cost: overhead, property tax, insurance, administration and capital recovery cost (for 10 years life of the system at 10% interest rate).

Based on the cost analysis, catalytic thermal incineration is economically infeasible. Therefore, no control with the use of HVLP Spray Guns with a Closed-Loop Internal Mix Manifold System, Water Fall and Water Pan is the only feasible option. This option, which uses less coating materials and subsequently has less VOC emissions has been determined to be BACT. The allowable VOC emissions from the surface coating operation will be 5.3 tons per month.

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) The requirements of 326 IAC 2-1-3.4 (New Source Toxics Control) do not apply to the two (2) paint lines because potential emissions of a single HAP and any combination of the HAPs are less than 10 and 25 tons per year, respectively.

(c) See attached spreadsheets for detailed air toxic calculations.

Conclusion

The construction of this modification to an existing plastic automotive trim surface coating operation will be subject to the conditions of the attached proposed **Construction Permit No. CP-133-8608-00019.**

Indiana Department of Environmental Management
Office of Air Management

Addendum to the
Technical Support Document for New Construction and Operation

Source Name:	H.A. Parts Products of Indiana Company
Source Location:	2200 State Route 240 East, Greencastle, Indiana 46135
County:	Putnam
Construction Permit No.:	CP-133-8608-00019
SIC Code:	3714
Permit Reviewer:	Trish Earls/EVP

On August 4, 1997, the Office of Air Management (OAM) had a notice published in the Banner Graphic, Greencastle, Indiana, stating that H.A. Parts Products of Indiana Company had applied for a construction permit to construct and operate a modification to an existing plastic automotive trim surface coating operation with dry filters and a water wash system as air pollution control. 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 has decided to make the following changes to the Technical Support Document (TSD):

1) Paragraph (d) of the Total Potential and Allowable Emissions section of the TSD (page 3 of 7) has been deleted. This paragraph refers to a modification of a major source of HAPs. This construction permit is for a modification to an existing minor source of HAPs, therefore, this paragraph does not apply in this case.

Appendix A: Emission Calculations
VOC and Particulate
From Surface Coating Operations

Company Name: H.A. Parts Products of Indiana Company
Address City IN Zip: 2200 State Route 240 East, Greencastle, Indiana 46135
CP: 133-8608
Plt ID: 133-00019
Reviewer: Trish Earls
Date: July 3, 1997

State Potential Emissions (uncontrolled):

Material (as applied)	Process	Density (Lb/Gal)	Weight % Volatile (H20& Organics)	Weight % Water	Weight % Organics	Volume % Water	Volume % Non-Vol (solids)	Gal of Mat (gal/unit)	Maximum (unit/hour)	Pounds VOC per gallon of coating less water	Pounds VOC per gallon of coating	Potential VOC pounds per hour	Potential VOC pounds per day	Potential VOC tons per year	Particulate Potential ton/yr	lb VOC /gal solids	Transfer Efficiency
R240D	Large Parts Line	8.40	60.00%	0.00%	60.00%	0.00%	28.09%	0.012	150.00	5.0	5.04	9.07	217.73	39.74	23.84	179.42	10.0%
R240DK	Small Parts Line	8.70	47.00%	0.00%	47.00%	0.00%	45.00%	0.009	150.00	4.1	4.09	5.52	132.48	24.18	24.54	90.87	10.0%
Total State Potential Emissions:												**14.59**	**350.21**	**63.91**	**48.38**		

Federal Potential Emissions (controlled):

	Control Efficiency: VOC	Control Efficiency: PM	Controlled VOC lbs per Hour	Controlled VOC lbs per Day	Controlled VOC tons per Year	Controlled PM tons/yr
Total Federal Potential Emissions:	0.00%	94.00%	**14.59**	**350.21**	**63.91**	**2.90**

Methodology:

Pounds of VOC per Gallon Coating less Water = (Density (lb/gal) * Weight % Organics) / (1-Volume % water)

Pounds of VOC per Gallon Coating = (Density (lb/gal) * Weight % Organics)

Potential VOC Pounds per Hour = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr)

Potential VOC Pounds per Day = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr) * (24 hr/day)

Potential VOC Tons per Year = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr) * (8760 hr/yr) * (1 ton/2000 lbs)

Particulate Potential Tons per Year = (units/hour) * (gal/unit) * (lbs/gal) * (1- Weight % Volatiles) * (1-Transfer efficiency) *(8760 hrs/yr) *(1 ton/2000 lbs)

Pounds VOC per Gallon of Solids = (Density (lbs/gal) * Weight % organics) / (Volume % solids) * Transfer Efficiency

Total = Worst Coating + Sum of all solvents used

Controlled emission rate = uncontrolled emission rate * (1 - control efficiency)

Appendix A: HAP Emission Calculations

Company Name: H.A. Parts Products of Indiana Company
Address City IN Zip: 2200 State Route 240 East, Greencastle, Indiana 46135
CP: 133-8608
Plt ID: 133-00019
Reviewer: Trish Earls
Date: July 3, 1997

Material	Density (Lb/Gal)	Gal of Mat (gal/unit)	Maximum (unit/hour)	Weight % Ethyl Benzene	Weight % MEK	Ethyl Benzene Emissions (ton/yr)	MEK Emissions (ton/yr)	Total HAP Emissions (ton/yr)
R240D	8.4	0.012	150.00	5.00%	0.00%	3.31	0.00	3.31
R240DK	8.7	0.009	150.00	5.00%	5.00%	2.57	2.57	5.14
Total State Potential Emissions						**5.88**	**2.57**	**8.46**

METHODOLOGY

HAPS emission rate (tons/yr) = Density (lb/gal) * Gal of Material (gal/unit) * Maximum (unit/hr) * Weight % HAP * 8760 hrs/yr * 1 ton/2000 l