CONSTRUCTION PERMIT
OFFICE OF AIR MANAGEMENT

Monaco Coach Corporation
400 Indiana Avenue
Wakarusa, Indiana 46573

is hereby authorized to construct
the equipment listed in the Page 2 of this permit.

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-039-8662-00017	
Issued by: Paul Dubenetzky, Branch Chief Office of Air Management	Issuance Date:

Plant No.2 consists of the following:

(a) a paint prep area utilizing solvents, cleaners, composites, and sanding to prepare 3.5 units per hour for painting with emissions exhausting through general ventilation stacks GV2-3 through GV2-7 and dust collectors D2-1 and D2-2;

(b) two (2) full paint production lines painting and sanding 1.0 units per hour (combined) with six (6) paint booths exhausting through stack vents SV2-1 through SV2-6;

(c) two (2) partial paint production lines painting and sanding 2.5 units per hour (combined) with six (6) paint booths exhausting through stack vents SV2-7 through SV2-12;

(d) a paint storage area and a paint mixing area exhausting through stack vents SV2-15 and SV2-16;

(e) one (1) repair and parts painting operation performing touch up work on approximately 0.5 units per hour from the full and/or partial paint lines and painting miscellaneous parts with one (1) large and two (2) small booths exhausting through stack vents SV2-17 through SV2-19;

(f) one (1) undercoating operation painting 3.5 units per hour with two (2) booths exhausting through stack vents SV2-13 and SV2-14;

(g) a final inspection area utilizing solvents, cleaners, sealants, adhesives, and paint to finish the painted units with emissions exhausting through general ventilation stacks GV2-1 and GV2-2; and

(h) two (2) natural gas fired air make-up units located in the paint prep area and having a maximum heat input rate of 1.923 million British thermal units per hour, each;

(i) one (1) air rotation unit, one (1) natural gas fired air make-up unit and two (2) natural gas fired unit heaters located in the final paint production area with maximum heat input rates of 0.4, 7.425, 0.1 and 0.1 million British thermal units per hour, respectively;

(j) one (1) natural gas fired air make-up unit with a maximum heat input rate of 3.85 million British thermal units per hour located in the sick bay area;

(k) two (2) natural gas fired air make-up units with a maximum heat input rate of 3.85 million British thermal units per hour, each, located in the final finish area;

(l) two (2) natural gas fired heaters located in the large repair booth, each with a maximum heat input rate of 2.5 million British thermal units per hour, and two (2) natural gas fired heaters located in the single repair booths (one per booth), each with a maximum heat input rate of 3.24 million British thermal units per hour;

(m) twelve (12) natural gas fired heaters located in the full paint booths (two per booth) and twelve (12) natural gas fired heaters located in the partial paint booths (two per booth), each with a maximum heat input rate of 2.97 million British thermal units per hour;

(n) One (1) natural gas fired air make-up unit located in the undercoating area, with a maximum heat input rate of 1.0 million British thermal units per hour.

(o) Two (2) natural gas fired unit heaters located in the office and break room area, each with a maximum heat input rate of 0.1 million British thermal units per hour.

(p) Two (2) natural gas fired infra-red unit heaters located in the undercoating area, each with a maximum heat input rate of 0.04 million British thermal units per hour.

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-039-7559-00017) on December 12, 1996 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 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 Plant 2 Painting 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.

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   (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, (local agency if applicable) or other public official having jurisdiction.

PSD Minor Source Limit

7. That the input of volatile organic compounds (VOCs) to the Plant 2 facilities shall be limited to 193.2 tons per 12 consecutive month period, rolled on a monthly basis. During the first 12 months of operation, the input VOC usage shall not exceed 16.1 tons per month. This input limitation is equivalent to VOC emissions of 193.2 tons per year, and when combined with the VOC emissions increase from the Plant 30 expansion permitted under CP-039-7335-00017, is less than 250 tons per year. Therefore, the Prevention of Significant Deterioration (PSD) rules, 326 IAC 2-2 and 40 CFR 52.21, will not apply.

Annual Emission Reporting

8. 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

9. 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.

Dust Collector Operating Condition

10. That pursuant to 326 IAC 6-3 (Process Operations), the dust collectors shall be in operation at all times when sanding operations which have dust collectors are operating, and the emissions from all sanding, controlled and uncontrolled, 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, if
P is equal to or less than 60,000 lbs/hr (30 tons/hr)

or

$E = 55.0P^{0.11} - 40$ where: E = rate of emission in pounds per hour,
P = process weight in tons per hour, if
P is greater than 60,000 lbs/hr (30 tons/hr).

Fugitive Dust Emissions

11. 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)].

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

(a) The dry filters for particulate matter overspray control shall be in operation at all times when the paint booths are in operation.

(b) The 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, if
P is equal to or less than 60,000 lbs/hr (30 tons/hr)

or

$E = 55.0P^{0.11} - 40$ where: E = rate of emission in pounds per hour,
P = process weight in tons per hour, if
P is greater than 60,000 lbs/hr (30 tons/hr).

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

(d) Weekly inspections shall be performed of the coating emissions from the stack and the presence of overspray on the rooftops and the nearby ground. A trained employee shall record whether emissions are normal or abnormal. For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time. A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.

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

BACT/MACT Condition

13. That pursuant to 326 IAC 8-1-6 and 326 IAC 2-1-3.4:

(a) Application of coatings (primer, base, top, and clear coats) in the production line paint booths shall be done with high volume-low pressure (HVLP) spray equipment. The base coat applied shall contain no less than eight and two tenths percent (8.2%) solids by weight and no more than 6.86 pounds of VOC per gallon of coating less water.

HVLP spray is the technology used to apply coating to substrate by means of coating application equipment which operates between one-tenth (0.1) and ten (10) pounds per square inch gauge (psig) air pressure measured dynamically at the center of the air cap and at the air horns of the spray system.

(b) Application of coatings to parts and as paint repair in the paint repair booths shall be done with air atomized spray equipment.

(c) Motor homes shall be undercoated with a waterborne-low VOC undercoating.

(d) Cleaning of motor home exteriors prior to painting, prep of motor homes prior to application of caulks and/or sealant, and miscellaneous cleaning, touch-up, and sealing shall be done with hand-wipe application whenever possible. Aerosol containers shall be supplied for sprayed materials resulting in an airless spray application. Material supplied in tubes and caulks/sealants shall be applied directly from the tube, with hydraulic pressure, or airless systems.

(e) To the extent possible, collected solvents shall be recycled on-site and/or off-site to recover reusable solvents and minimize waste.

(f) End-up seams on the motor homes shall be filled with a hand-lay up resin and gelcoat.

(g) The following work practices shall be observed:

(1) All solvent sprayed during cleanup or color changes shall be directed into containers. Such containers shall be closed as soon as solvent spraying is complete and the waste solvent shall be disposed of in such a manner that evaporation is minimized.

(2) Storage containers used to store VOC and/or HAP containing materials shall be kept closed when not in use.

(3) The application equipment operators shall be instructed and trained on the methods and practices utilized to minimize overspray, avoid drips and spills. Spills and drips shall be cleaned up as soon as practicable.

(4) Spray equipment and pumps shall be maintained regularly to minimize drips and seal leaks.

(5) Cleanup and solvent/cleaner application rags saturated with VOC or HAP containing materials shall be stored, transported, and disposed of in containers that are tightly closed.

Reporting Requirements

14. That a log of information necessary to document compliance with operation permit condition nos. 7, 12 and 13 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 reports shall include the input volatile organic compound usage for the Plant 2 facilities based on VOC and HAP containing material usage records. These records shall include the coating, thinner and clean up solvent usage, material safety data sheets (MSDS) or certified products data sheets (CPDS) and the date(s) of use for VOC and HAP containing materials.

(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 (and local agency if applicable), 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 exeedance 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

15. 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. The previous sentence notwithstanding, the Permittee may open burn in accordance with an open burning approval issued by the Commissioner under 326 IAC 4-1-4.1.

Emergency Reduction Plans

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

(a) The Permittee 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 date on which this new source commences operation.

(c) If the ERP is disapproved by IDEM, OAM, the Permittee shall have an additional thirty (30) days to resolve the differences and submit an approvable ERP. If after this time, the Permittee 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.

(g) Upon direct notification by IDEM, OAM, that a specific air pollution episode level is in effect, the Permittee 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
Compliance Data Section

Quarterly Report

Company Name: Monaco Coach Corporation
Location: 400 Indiana Avenue, Wakarusa, Indiana 46573
Permit No.: CP-039-8662-00017
Source: Plant 2 facilities
Pollutant: Volatile organic compounds (VOC)
Limit: Input volatile organic compounds (VOC) to the Plant 2 facilities shall be limited to 193.2 tons per twelve (12) consecutive month period. During the first 12 months of operation, the input VOC usage shall not exceed 16.1 tons per month.

Year: _____

Month	Input VOC Usage This Month (tons/month)	Input VOC Usage Last 12 Months (tons/12 month period)

Submitted by: _____

Title/Position: _____

Signature: _____

Date: _____

Indiana Department of Environmental Management
Office of Air Management

Technical Support Document (TSD) for New Construction and Operation

Source Background and Description

Source Name:	Monaco Coach Corporation
Source Location:	400 Indiana Avenue, Wakarusa, Indiana 46573
County:	Elkhart
Construction Permit No.:	039-8662-00017
SIC Code:	3116
Permit Reviewer:	JKJ

The Office of Air Management (OAM) has reviewed an application from Monaco Coach Corporation (formerly called Holiday Rambler Division) relating to the construction and operation of a new motor home painting process designated as Plant No.2, consisting of the following equipment:

(a) a paint prep area utilizing solvents, cleaners, composites, and sanding to prepare 3.5 units per hour for painting with emissions exhausting through general ventilation stacks GV2-3 through GV2-7 and dust collectors D2-1 and D2-2;

(b) two (2) full paint production lines painting and sanding 1.0 units per hour (combined) with six (6) paint booths exhausting through stack vents SV2-1 through SV2-6;

(c) two (2) partial paint production lines painting and sanding 2.5 units per hour (combined) with six (6) paint booths exhausting through stack vents SV2-7 through SV2-12;

(d) a paint storage area and a paint mixing area exhausting through stack vents SV2-15 and SV2-16;

(e) one (1) repair and parts painting operation performing touch up work on approximately 0.5 units per hour from the full and/or partial paint lines and painting miscellaneous parts with one (1) large and two (2) small booths exhausting through stack vents SV2-17 through SV2-19;

(f) one (1) undercoating operation painting 3.5 units per hour with two (2) booths exhausting through stack vents SV2-13 and SV2-14;

(g) a final inspection area utilizing solvents, cleaners, sealants, adhesives, and paint to finish the painted units with emissions exhausting through general ventilation stacks GV2-1 and GV2-2; and

(h) two (2) natural gas fired air make-up units located in the paint prep area and having a maximum heat input rate of 1.923 million British thermal units per hour, each;

(i) two (2) natural gas fired air make-up units and one (1) natural gas fired unit heater located in the final paint production area with maximum heat input rates of 0.4, 7.425, and 0.1 million British thermal units per hour, respectively;

(j) one (1) natural gas fired air make-up unit with a maximum heat input rate of 3.85 million

British thermal units per hour located in the sick bay area;

(k) two (2) natural gas fired air make-up units with a maximum heat input rate of 1.925 million British thermal units per hour, each, located in the final finish area;

(l) two (2) natural gas fired heaters located in the large repair booth, each with a maximum heat input rate of 2.5 million British thermal units per hour, and four (4) natural gas fired heaters located in the single repair booths (two per booth), each with a maximum heat input rate of 3.24 million British thermal units per hour;

(m) twelve (12) natural gas fired heaters located in the full paint booths (two per booth) and twelve (12) natural gas fired heaters located in the partial paint booths (two per booth), each with a maximum heat input rate of 2.97 million British thermal units per hour;

Source Definition

Monaco Coach Corporation's 400 Indiana Avenue Complex (formerly Holiday Rambler Division) consists of the following plants:

(a) Plant 2: New Paint Facilities
(b) Plant 20: Welding and Laminating
(c) Plant 22: Metal Shop with a maximum throughput of 3.5 units per hour
(d) Plants 23 & 24: Normal maintenance operations
(e) Plant 25: Warehouse
(f) Plant 26: Undercoating
(g) Plant 27: Storage
(h) Plant 28: Formtec
(i) Plant 29: Research & development
(j) Plant 30: Motorized recreational vehicle assembly modified to increase maximum throughput to 3.5 units per hour
(k) Plant 31: Paint/preparation production and west slide-out assembly with a maximum throughput of 2.5 units per hour
(l) Plant 33: Compressor building
(m) Plant 34: Fire pump
(n) Plant 36: Fiberglass fabrication with a maximum throughput of 3.5 units per hour
(o) Plant 37: Fiberglass mold shop
(p) Plant 38: Research & development machine shop
(q) Plant 45: Print Shop
(r) Plant 46: Dispatch

Since these eighteen (18) plants are located in contiguous properties, have the same SIC codes and owned by one company, they are considered as one (1) source.

Stack Summary

Stack ID	Operation	Height (feet)	Diameter (feet)	Flow Rate (acfm)	Temperature (^{0}F)
SV2-1	full paint booth	36	5.0	60000	70
SV2-2	full paint booth	36	5.0	60000	70
SV2-3	full paint booth	36	5.0	60000	70
SV2-4	full paint booth	36	5.0	60000	70
SV2-5	full paint booth	36	5.0	60000	70
SV2-6	full paint booth	36	5.0	60000	70
SV2-7	partial paint booth	36	5.0	60000	70
SV2-8	partial paint booth	36	5.0	60000	70
SV2-9	partial paint booth	36	5.0	60000	70
SV2-10	partial paint booth	36	5.0	60000	70
SV2-11	partial paint booth	36	5.0	60000	70
SV2-12	partial paint booth	36	5.0	60000	70
GV2-1	final inspection area	36	3.5	20000	70
GV2-2	final inspection area	36	3.5	20000	70
GV2-3	paint prep area	36	2.5	10000	70
GV2-4	paint prep area	36	2.5	10000	70
GV2-5	paint prep area	36	2.5	10000	70
GV2-6	paint prep area	36	2.5	10000	70
GV2-7	paint prep area	36	2.5	10000	70
SV2-13	undercoat booth	3	3.8	15000	70
SV2-14	undercoat booth	3	3.0	15000	70
D2-1	paint prep area dust collector	36	2.5	20000	70
D2-2	paint prep area dust collector	N.A.	N.A.	20000	N.A.
SV2-15	paint storage area	30	1.0	10000	70
SV2-16	paint mixing area	30	1.0	10000	70
SV2-17	paint repair booth	36	5.0	50000	70
SV2-18	paint repair booth	36	5.0	50000	70
SV2-19	paint repair booth	36	5.0	50000	70

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 June 4, 1997, with additional information received on August 7, June 18, July 29, and November 10, 1997.

Emissions Calculations

See Appendix A (Emissions Calculation Spreadsheets) for detailed calculations (8 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)	292.2	292.2
Particulate Matter (PM10)	292.2	292.2
Sulfur Dioxide (SO_2)	0.3	0.3
Volatile Organic Compounds (VOC)	1292.7	1292.7
Carbon Monoxide (CO)	9.5	9.5
Nitrogen Oxides (NO_x)	45.3	45.3
Single Hazardous Air Pollutant (HAP)	259.5	259.5
Combination of HAPs	692.2	692.2

(a) The potential emissions before control are the same as the allowable emissions, therefore, the potential emissions before control are used for the permitting determination.

(b) Allowable emissions (as defined in the Indiana Rule) of particulate matter (PM), volatile organic compounds (VOC), and nitrogen oxides (NO_x) are greater than 25 tons per year. Therefore, pursuant to 326 IAC 2-1, Sections 1 and 3, a construction permit is required.

(c) Allowable emissions (as defined in the Indiana Rule) of a single hazardous air pollutant (HAP) are greater than 10 tons per year and 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 are precursors for the formation of ozone. Therefore, VOC and NOx 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 other regulated air 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, Part 70 or FESOP Definition (emissions after controls, based on 8,760 hours of operation per year at rated capacity and/ or as otherwise limited):

Pollutant	Emissions (ton/yr)
PM	58.9
PM10	58.9
SO_2	negligible
VOC	228.5
CO	0.2
NO_x	0.8

(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 source wide permit, CP-039-7335-00017, issued on July 24, 1997.

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)
Previous Plant 30 modification	27.8	27.8	0.0	38.2	0.0	0.0
New Plant 2 modifications	32.9	32.9	0.3	210.8	9.5	45.3
Total modifications during past year *	60.7	60.7	0.3	249.0	9.5	45.3
PSD Threshold Level	250	250	250	250	250	250

* The new Plant 2 covered in this permit review is related to the Plant 30 expansion (permitted on July 24, 1997) in that it is designed to paint the products of the Plant 30 assembly process. Because the Plant 30 expansion and the new Plant 2 paint facility are at the same source, have a common product line, and were both submitted for construction approval within the same year's time, the two shall be reviewed pursuant to Prevention of Significant Deterioration (PSD) rules as a single, combined, emissions increase.

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 has submitted their Part 70 (T-039-7559-00017) application on December 12, 1996. The equipment being reviewed under this permit shall be incorporated in the submitted Part 70 application.

Federal Rule Applicability

(a) There are no New Source Performance Standards (326 IAC 12), 40 CFR Part 60, applicable to these facilities.

(b) There are no National Emission Standards for Hazardous Air Pollutants (NESHAP), 40 CFR Part 63, applicable to these facilities.

State Rule Applicability

326 IAC 2-1-3.4 (New Source Toxics Control)

There are four (4) process lines which are independently distinguishable in the new Plant 2 painting operations, two (2) full paint lines and two (2) partial paint lines, each of which is considered a “process or production unit” as defined in 40 CFR 63.41 (incorporated by reference in 326 IAC 2-1-3.4). The potential to emit (PTE) of combined hazardous air pollutants (HAPs) for each full paint line is greater than 25 tons per year and the potential to emit (PTE) of a single HAP for each partial paint line is greater than 10 tons per year (see Appendix A of the TSD for detailed calculations). Therefore, the four (4) process lines are all subject to the requirements of this rule.

Pursuant to 326 IAC 2-1-3.4, a case-by-case MACT (Maximum Achievable Control Technology) determination has been made by the Office of Air Management (OAM). The MACT requirements shall consist of the application methods and work practices resulting from the best available control technology (BACT) study discussed below under 326 IAC 8-1-6.

326 IAC 2-2 (Prevention of Significant Deterioration)

Monaco Coach Corporation has agreed to accept a synthetic limitation for volatile organic compound (VOC) emissions such that PSD requirements do not apply. The new Plant 2 facilities covered in this permit review are related to the Plant 30 expansion (permitted on July 24, 1997) in that Plant 2 is designed to paint the products of the Plant 30 assembly process. In order to limit the combined emissions increase for both of these projects to 249 tons per year, it is necessary to limit the Plant 2 facilities to 210.8 tons per year. Because Monaco Coach Corp. has requested that this limitation be rolled on a monthly basis, it is the OAM’s policy to apply an 11/12 ratio to determine the 12 consecutive month total limit of 193.2 tons, rolled on a monthly basis.

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 per year of VOC. 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.

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.

326 IAC 6-3-2 (Particulate Emissions Limitations for Process Operations)

No person shall operate a facility such that particulate matter is emitted in excess of the pound per hour limit calculated as follows according to part (c) of the rule:

for "P" less than 30 tons per hour: $E = 4.10 * P^{0.67}$

- or -

for "P" greater than 30 tons per hour: $E = 55.0 * P^{0.11} - 40$

where: "E" is the emission rate limit in pounds per hour, and
"P" is the process throughput in tons per hour.

Due to variability in the number of units painted, the types of coatings used and the weights of the units processed, no emissions rate limit has been calculated for the spray coating booths. These facilities will be assumed to comply with the rule provided the dry filter controls are in place and functioning properly at all times that the surface coating process is in operation.

Also, due to variability in the number of units sanded and the weights of the units processed, no emissions rate limit has been calculated for the sanding operations. This operation will be assumed to comply with the rule provided the dry filter controls are in place and functioning properly at all times that sanding is taking place.

326 IAC 8-1-6 (General Provisions Relating to VOC Rules)

The four (4) process lines each have potential volatile organic compound (VOC) emissions greater than 25 tons per year and are, therefore, subject to Best Achievable Control Technology (BACT) requirements pursuant to this rule. A summary of the BACT review submitted by the company is provided below.

Best Available Control Technology (BACT) Summary

The BACT analysis submitted by Monaco Coach Corporation, has been performed in accordance with the USEPA, Office of Air Quality Planning Standards, Draft "Top Down: BACT Guidance" dated March 15, 1990. This analysis consists of the use of the following:

(1) On-line search of the BACT/LAER Clearinghouse;

(2) Permits from other regulatory agencies;
(3) Permit engineers;
(4) Vendors/suppliers;
(5) Inspection & performance reports; and
(6) OAQPS control cost manual and trade journals.

The BACT analysis submitted by Monaco Coach Corporation, has been evaluated by the OAM. The OAM agrees with the chosen controls and/or limits. A summary of the BACT analysis is as follows:

(1) Technologies considered to be technically infeasible for motor home painting operations:

(a) *Waterborne Coatings* - The drying time for waterborne coatings is longer and the product cannot be handled as soon as with solvent based coatings. The use of drying ovens to decrease the drying time for waterborne coatings in not possible because the motor homes being coated contain components made of heat sensitive materials. Current waterborne coating formulations have experienced loss of gloss and color over time compared with two-component urethane paint systems.

Note: Waterborne coatings are acceptable for undercoating and some prep cleaners and waterborne coatings will be used for these two operations.

(b) *Nonphotochemically Reactive Solvents* - Most of these solvents evaluated have been associated with environmental problems (stratospheric ozone depletion for example) or severe health hazards. With the exception of acetone, the nonphotochemically reactive solvents considered are not commonly used in paint formulations. Monaco is working with current paint and cleaning solvent suppliers to utilize acetone as a replacement diluent and solvent where feasible.

(c) *High Solids Coating Systems* - Monaco Coach Corp. will use the BASF Diamont™ coating system on motor homes painted at this facility. This system consists of a high solids clear coat, base coat, and primers. The base coat proposed is as high in solids as available for base coats at present. Coatings with higher solids content than the system proposed would require the addition of a drying oven to obtain the finish quality and production rate required. As previously discussed under (a), components of the motor homes are heat sensitive eliminating the practicality of higher temperature drying ovens, and hence the use of higher solids coatings.

(d) *Chemical Scrubber* - Scrubbers are often not a feasible option because waste streams generally contain several components, and thus may require a different solvent for each target chemical. Since each process at Monaco emits several different chemicals, the resulting capture and treatment requirements are considered to effectively eliminate the scrubber system from further consideration.

(e) *Biofiltration* - Biofiltration has been used successfully to control odors in Europe but there are only a few applications for odor control in the United States and there are no known applications of biofiltration for the removal of VOCs from paint exhaust streams of motor coach production facilities. Biofilters are usually associated with lower air volumes than would be generated by the paint booths at Monaco Coach. For these reasons, biofiltration was not evaluated further for use at this facility.

(f) *Condensation* - Condensation was dismissed as impractical due to the extremely low temperatures (-160 ^{o}F) required to achieve any significant reduction (90%) of VOC emissions. This low temperature requirement is a result of the very low concentrations of solvents existing in the exhaust streams.

(g) *Hybrid Systems* - Hybrid systems involving a combination of adsorption and incineration techniques were considered but dismissed due to the disadvantages already inherent in the primary control methods (discussed below) and the additional complexity and cost associated with the hybrid systems.

(2) The following feasible technologies were considered for BACT:

(a) *High Volume Low Pressure (HVLP) Paint Application* - HVLP spray equipment or equivalent will be used to apply finish coatings in all production operations. However, because of the special requirements for paint repair operations, conventional spray equipment will be used in the repair operations where HVLP is not feasible.

HVLP spray is the technology used to apply coating to substrate by means of coating application equipment which operates between one-tenth (0.1) and ten (10) pounds per square inch gauge (psig) air pressure measured dynamically at the center of the air cap and at the air horns of the spray system.

(b) *Carbon Adsorption* - There are several process and waste stream related factors which adversely affect the use of carbon adsorption for VOC control. The control efficiency is questionable for multiple solvents present at low concentrations as they are in the overall process and it is impractical to recover these solvents from multi component and two-phase mixtures. Carbon Adsorption has an inadequate capacity for methanol and possibly other solvent components which require large carbon beds and/or frequent regenerations because they are not readily adsorbed at low concentrations. There are also safety hazards associated with ketones and other solvents such as fire and explosion. The system would require steam supply for regeneration and create wastewater containing soluble organics as a result.

(c) *Catalytic Incineration* - Although catalytic incinerators can be used for the destruction of most solvents present in complex mixtures, they are not suitable for treatment of wastes streams containing halogenated organics. With the absence of halogenated materials, catalytic incineration is viable for the majority of streams at Monaco.

(d) *Thermal Incineration* - Of all the VOC control technologies evaluated, thermal

incineration is the one whose VOC reduction efficiency is least affected by waste stream characteristics. The combustion of halogenated organics, however, will result in HCl emissions which must be removed by a caustic scrubber. Due to the intermittent nature of the operation and low heating value of the waste stream, high fuel consumption is required and will result in additionally NO_x and CO emissions to the environment.

Utilizing the operating parameters, emission profiles and flowrates as a preliminary design basis, capital and annualized costs for each of the feasible control technologies (carbon adsorption, thermal incineration, and catalytic incineration) were prepared. These three options were then compared to a fourth option, the operation of the plant without add-on controls to arrive at a determination of BACT for the VOC emissions from the proposed facility. Relative cost (dollars per ton of VOC removed) of the technologies compared to the option of no add-on controls along with initial capital costs of the installed equipment are presented in the following table:

Control Technology	Relative Cost ($/ton VOC removed)	Capital Cost ($)
Carbon Adsorption	$7,728	$4,625,000
Thermal Incineration	$34,072	$5,490,000
Catalytic Incineration	$20,791	$3,751,500

On the basis of cost effectiveness, carbon adsorption would appear to represent the technology of choice. However, the cost effectiveness of carbon adsorption is still excessively high, its performance is suspect, and there are other environmental and safety aspects which cast doubt on its viability.

The cost of the entire plant is approximately 3.0 million dollars and the capital costs of the add-on controls, therefore, are comparable to the cost of the entire facility and are considered to be prohibitively expensive.

(3) The control technologies evaluated in this study of VOC emissions from the Monaco facility in Wakarusa, Indiana, were coating transfer efficiency enhancement, coating reformulation, and add-on controls.

Monaco actively pursues VOC reduction through the use of transfer efficiency enhancement techniques and chemical reformulation. Although additional VOC reductions through these techniques can be anticipated in the future, the coatings and application methods now being used by Monaco represent the best available based on product acceptability and environmental impact.

Add-on control measures based on incinerator technology appear capable of achieving significant reductions in VOC emissions. However, enormous costs are incurred and, in addition, there are environmental and safety risks. The performance of the third technology studied, carbon adsorption, is highly questionable for a number of reasons including the presence of multiple VOCs withing the waste streams, the nature of some constituents which are not readily adsorbed by carbon, the potential for fire and explosion posed by other constituents like ketones, the low concentration of many of the constituents, the absence of a steam source, and the potential problem of wastewater discharges. All of these factors impair performance and acceptability of the technology. Also, excessive costs are incurred in implementing carbon adsorption.

Based on the above analysis, the Best Available Control Technology (BACT) for each process is described in the following paragraphs:

Miscellaneous cleaning, touch-up and sealing processes - Hand-wipe application will be used whenever possible. Aerosol containers are provided for some materials which result in airless spray application. Some materials are supplied in tubes, resulting in direct application of the material.

Cleaning motor home exteriors prior to painting - Motor home exteriors will be hand-wiped with cleaning solvent.

Application of primer, base, top, and clear coatings in the main production booths - Application of primer, base, top and clear coats will be done with high volume-low pressure (HVLP) spray equipment. The base coat that will be used is as high in solids as available for base coats at present.

Application of coatings in the paint repair booths - To obtain acceptable finishes, air atomized spray equipment will be used for parts painting and paint repairs.

Sealant and Caulks - Coaches will be prepped with aerosol cleaners and hand-wiped solvents. Caulks and sealants will be applied with hydraulic pressure or airless systems.

Undercoating - Vehicles will be undercoated with a waterborne-low VOC undercoating.

Housekeeping - Good housekeeping practices will be employed to minimize leaks, spills and evaporative losses. These will include:

(a) keeping containers sealed when not in use or during storage
(b) purging gun and line cleaning solvents into approved containers
(c) avoiding drips and spills and cleaning up spills immediately
(d) maintaining spray equipment and pumps to avoid drips and seal leaks

Recycling - Collected solvents will be recycled on-site and off-site to recover reusable solvents and minimize waste.

Resin Patching - End-up seams on the coach will be filled with a hand-lay up resin and gel coat.

(4) On November 17, 1997, the OAM investigated existing BACT determinations made in

the last five years for similar sources utilizing the EPA RBLC (RACT/BACT/LAER Clearinghouse). No existing BACT determinations were found in this search based on the SIC code (3716) and the pollutant emitted (VOC).

Based on evaluation of the BACT review submitted by Monaco Coach Corporation, the OAM agrees with the determinations made with the addition of the following work practices to the housekeeping:

(a) Cleanup and application rags saturated with solvents shall be stored, transported, and disposed of in containers that are closed tightly.

(b) The application equipment operators shall be instructed and trained on the methods and practices utilized to minimize overspray.

Air Toxic Emissions

Indiana presently requests applicants to provide information on emissions of the 187 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. This proposed new motor home painting process will emit levels of air toxics greater than those that constitute major source applicability according to Section 112 of the Clean Air Act. The concentrations of these air toxics were modeled and found to be (in worst case possible) as follows:

Air Toxic Analysis

Pollutant	Rate (lb/hr)	Rate @ 8760 hr/yr (ton/yr)	Rate as controlled and limited (ton/yr)	Modeled Concentration (Fg/m^3)	OSHA PEL (Fg/m^3)	% OSHA PEL
Methyl Ethyl Ketone	19.23	84.23	13.60	9.83	590000.00	0.001700
Ethylbenzene	2.35	10.29	1.66	1.21	435000.00	0.000280
Methanol	8.49	37.20	6.01	5.50	260000.00	0.002100
Styrene	18.89	82.74	13.36	9.60	420000.00	0.002300
Dimethyl Phthalate	1.01	4.43	0.72	0.53	5000.00	0.010600
Methyl Isobutyl Ketone	24.01	105.17	16.99	12.30	410000.00	0.003000
Toluene	59.24	259.49	41.91	30.40	750000.00	0.004050
Xylenes	17.66	77.36	12.49	9.07	435000.00	0.002090
Hexane	0.14	0.61	0.10	0.07	1800000.00	0.000004
Methylene Chloride	1.39	6.08	0.98	0.70	210000.00	0.000330
Trichloroethane	2.78	12.16	1.96	1.40	45000.00	0.003100
Methyl Methacrylate	2.84	12.44	2.01	1.46	410000.00	0.000360

Methodology: Rate ton/yr = (rate lb/hr)*(hr/yr of operation)

The concentrations of these air toxics were compared to the Permissible Exposure Limits (PEL) developed by the Occupational Safety and Health Administration (OSHA). The Office of Air Management (OAM) does not have at this time any specific statutory or regulatory authority over these substances.

(b) The applicant has been notified in writing that the air toxic emissions exceed the major source applicability levels stated by Section 112 of the Clean Air Act Amendments, and that it would be beneficial, both to the applicant and to the public, for the applicant to take steps to reduce or eliminate these air toxic emissions.

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

Conclusion

The construction of this new motor home painting process will be subject to the conditions of the attached proposed **Construction Permit No. CP-039-8662-00017.**

Appendix A
Natural Gas Combustion Only
Commercial Boiler (mm Btu/hr 0.3 - < 10)

Company Name: Monaco Coach Corporation
Address City IN Zip: 400 Indiana Ave., Wakarusa, Indiana 46573
CP: 039-8662
Plt ID: 039-00017
Reviewer: Janusz Johnson
Date: November 4, 1997

Heat Input Capacity MMBtu/hr		Potential Throughput MMCF/yr
108.7	paint prep: two (2) 1.923 MMBtu/hr, each final paint: 0.4 MMBtu/hr, 7.425 MMBtu/hr, and 0.1 MMBtu/hr sick bay: 3.85 MMBtu/hr final finish: two (2) 1.925 MMBtu/hr, each repair booths: two (2) 2.5 MMBtu/hr, each and four (4) 3.24 MMBtu/hr, each final & partial paint: twenty four (24) 2.97 MMBtu/hr, each	907.0

Pollutant

		PM	PM10	SO2	NOx	VOC	CO
Emission Factor in lb/MMCF	**	11.9	11.9	0.6	100.0	5.3	21.0
Potential Emission in tons/yr		5.4	5.4	0.3	45.3	2.4	9.5

	Uncontrolled	Low NOx Burn	Flue Recirculation
**Emission Factor for NOx:	100	17	36
**Emission Factor for CO:	21	27	No Data

Methodology

MMBtu = 1,000,000 Btu

MMCF = 1,000,000 Cubic Feet of Gas

Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,050 MMBtu

Emission Factors from AP42 1.4 - Natural Gas Combustion (EPA 450/4-90-003 SCC #1-03-006-03)

Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton

Appendix A
Process steps emitting Particulate Matter

Company Name: Monaco Coach Corporation
Address City IN Zip: 400 Indiana Ave., Wakarusa, Indiana 46573
CP: 039-8662
Plt ID: 039-00017
Reviewer: Janusz Johnson
Date: November 4, 1997

Sanding Emissions

Approximations of dust emitted from sanding areas per unit: 5.0 lbs/unit on partial paint line
20.0 lbs/unit on full paint line

Potential emissions for the partial paint lines are as follows based on a maximum throughput of 2.5 units per hour:

PM emissions (lbs/hr) = 2.5 units/hr * 5.0 lbs/unit = 12.5 lbs/hr

Potential emissions for the full paint lines are as follows based on a maximum throughput of 1.0 units per hour:

PM emissions (lbs/hr) = 1.0 units/hr * 20.0 lbs/unit = 20.0 lbs/hr

Total potential emissions from sanding are:

Total PM (lbs/hr) =	32.5
(tons/yr) =	142.4

A general ventilation control system designed to achieve 90% collection efficiency based on settling of larger particles and capture of airborne particles in a filter at the exhaust is used...

Controlled emissions (tons/yr) = 14.2

Appendix A: Emissions Calculations
Potential HAP Emissions
From NEW Plant 2 Surface Coating Operations

Company Name: Monaco Coach Corporation
Address City IN Zip: 400 Indiana Avenue, Wakarusa, Indiana 46573
CP: 039-8662
Plt ID: 039-00017
Reviewer: Janusz Johnson
Date: August 6, 1997

Material	MEK 75-93-3		Formaldehyde 50-00-0		Ethylbenzene 100-41-4		Methanol 67-56-1		Styrene 100-42-5		Dimethyl phthalate 131-11-3		MIBK 108-10-1		Toluene 108-88-3		Xylene 1330-20-7		Hexane 110-54-3		Methylene chloride 75-09-2		1,1,1-Trichloroethane 71-55-6		Methyl Methacrylate 80-62-6	
	wt. %	Emissions (ton/yr)	wt. %	Emissions (ton/yr)	wt. %	Emissions (ton/yr)	wt. %	Emissions (ton/yr)	wt. %	Emissions (ton/yr)	wt. %	Emissions (ton/yr)	wt. %	Emissions (ton/yr)	wt. %	Emissions (ton/yr)	wt. %	Emissions (ton/yr)	wt. %	Emissions (ton/yr)	wt. %	Emissions (ton/yr)	wt. %	Emissions (ton/yr)	wt. %	Emissions (ton/yr)
PARTIAL PAINT LINES																										
Solvent/Cleaners																										
acetone hi-moisture (* delisted VOC)		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00
cleaner DX533		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00
aqua mate cleaner W4K157		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00
low VOC paint cleaner DX380		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00
pre-clean cleaner DX330		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00
sprayon glass cleaner 880		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00
gun cleaner 4-GCL UN1263		0.00		0.00		0.00		0.00		0.00		0.00	9.00%	0.46	27.00%	1.37		0.00		0.00		0.00		0.00		0.00
all purpose lacquer thinner DTL10		0.00		0.00		0.00		0.00		0.00		0.00		0.00	50.00%	0.61	30.00%	0.37		0.00		0.00		0.00		0.00
thinner DTL151G		0.00		0.00		0.00		0.00		0.00		0.00		0.00	15.00%	0.13		0.00		0.00		0.00		0.00		0.00
all purpose thinner DTL16G		0.00		0.00		0.00		0.00		0.00		0.00		0.00	25.00%	4.56	20.00%	3.65		0.00		0.00		0.00		0.00
lacquer thinner 5033	10.00%	1.17		0.00		0.00	15.00%	1.75		0.00		0.00	5.00%	0.58	60.00%	7.00		0.00		0.00		0.00		0.00		0.00
solvent reducer DRR1185	25.00%	10.16		0.00		0.00		0.00		0.00		0.00	15.00%	6.09	15.00%	6.09	10.00%	4.06		0.00		0.00		0.00		0.00
pure grade laquer thinner	10.00%	12.32		0.00		0.00	10.00%	12.32		0.00		0.00	10.00%	12.32	60.00%	73.91		0.00		0.00		0.00		0.00		0.00
WASTE		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00
Paint																										
activator NCX255		0.00		0.00		0.00		0.00		0.00		0.00		0.00	25.00%	0.17		0.00		0.00		0.00		0.00		0.00
additive paint supercharger DFX7		0.00		0.00		0.00		0.00		0.00		0.00		0.00	15.00%	0.66		0.00		0.00		0.00		0.00		0.00
blender acrylic color DXA100	2.00%	0.01		0.00		0.00		0.00		0.00		0.00		0.00	45.00%	0.28	15.00%	0.09		0.00		0.00		0.00		0.00
blender universal DX830		0.00		0.00		0.00		0.00		0.00		0.00		0.00	20.00%	0.13		0.00		0.00		0.00		0.00		0.00
catalyst DX84		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00
catalyst DU5		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00
catalyst NCX275		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00	10.00%	0.04		0.00		0.00		0.00		0.00
catalyst deltron DAU2		0.00		0.00		0.00		0.00		0.00		0.00		0.00	15.00%	0.10		0.00		0.00		0.00		0.00		0.00
catalyst pretreatment NCX290		0.00		0.00		0.00		0.00		0.00		0.00		0.00	10.00%	0.11	5.00%	0.05		0.00		0.00		0.00		0.00
compliant clearcoat DCD35		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00
fish eye preventer DX77		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00	100.00%	0.95		0.00		0.00		0.00		0.00
hardener DU4		0.00		0.00		0.00		0.00		0.00		0.00		0.00	10.00%	2.24		0.00		0.00		0.00		0.00		0.00
paint DBU-	10.00%	20.81		0.00		0.00		0.00		0.00		0.00		0.00	15.00%	31.21	10.00%	20.81		0.00		0.00		0.00		0.00
paint DCU2020		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00	25.00%	0.27		0.00		0.00		0.00		0.00
broma gloss spray lacquer 110/115/109	8.00%	0.12		0.00		0.00		0.00		0.00		0.00		0.00	10.00%	0.14	16.05%	0.23		0.00		0.00		0.00		0.00
paint color DAU-	10.00%	0.04		0.00		0.00		0.00		0.00		0.00		0.00	15.00%	0.06	5.00%	0.02		0.00		0.00		0.00		0.00
paint D.I.U. basecoat DIU-1&2	10.00%	0.17		0.00		0.00		0.00		0.00		0.00		0.00	15.00%	0.25	5.00%	0.08		0.00		0.00		0.00		0.00
paint duracryl acrylic lacquer DDL	40.00%	0.56		0.00		0.00		0.00		0.00		0.00	15.00%	0.21	45.00%	0.62	15.00%	0.21		0.00		0.00		0.00		0.00
primer NCP250		0.00		0.00		0.00		0.00		0.00		0.00		0.00	10.00%	2.98	10.00%	2.98		0.00		0.00		0.00		0.00
reducer DT860/DT870		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00
reducer warm temperature DT885	20.00%	3.16		0.00		0.00		0.00		0.00		0.00		0.00	10.00%	1.58	10.00%	1.58		0.00		0.00		0.00		0.00
sealer 3.5 VOC NCS1990		0.00		0.00		0.00		0.00		0.00		0.00	15.00%	10.27		0.00		0.00		0.00		0.00		0.00		0.00
solvent anti-stat prep DX103		0.00		0.00		0.00	5.00%	0.19		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00
FULL PAINT LINES																										
Paints																										
BC bases & colors DAB		0.00		0.00	6.00%	7.82		0.00		0.00		0.00	45.00%	58.64		0.00	25.00%	32.58		0.00		0.00		0.00		0.00
diamond primer DP21		0.00	0.10%	0.00	5.00%	0.10		0.00		0.00		0.00		0.00	1.00%	0.02	10.00%	0.19		0.00		0.00		0.00		0.00
diamond HS hardener DH61/PH61		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00
etching primer DE17		0.00	0.10%	0.00	5.00%	0.20		0.00		0.00		0.00		0.00		0.00	15.00%	0.61		0.00		0.00		0.00		0.00
diamond etching activator DA18		0.00		0.00		0.00	5.00%	0.74		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00
diamond speed dry clear DC95	10.00%	17.21		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00
diamond clear hardener DH49		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00
acrylic lacquer primer & sealant 131S		0.00		0.00		0.00		0.00		0.00		0.00		0.00	13.00%	2.29	9.00%	1.59		0.00		0.00		0.00		0.00
universal low temp reducer UR40		0.00		0.00		0.00		0.00		0.00		0.00		0.00	20.00%	3.24		0.00		0.00		0.00		0.00		0.00
universal mid temp reducer UR50		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00
universal high temp reducer UR60		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00

fish eye eliminator 809		0.00		0.00	20.00%	0.01		0.00		0.00		0.00		0.00		0.00	80.00%	0.03		0.00		0.00		0.00		0.00
clear adhesion promoter 811		0.00		0.00		0.00		0.00		0.00		0.00		0.00	13.00%	1.00	9.00%	0.69		0.00		0.00		0.00		0.00
flex agent 891	40.00%	0.38		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00
diamond flex DF25		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00
rapid additive 521-10		0.00		0.00	5.00%	0.02		0.00		0.00		0.00		0.00		0.00	20.00%	0.06		0.00		0.00		0.00		0.00
SRA reducer 5021/5022		0.00		0.00		0.00		0.00		0.00		0.00		0.00	40.00%	3.07		0.00		0.00		0.00		0.00		0.00
3M no cleanup rocker gard 8949		0.00		0.00	2.00%	0.02		0.00		0.00		0.00		0.00	60.00%	0.49	10.00%	0.08		0.00		0.00		0.00		0.00
Composites																										
clear DDM9	3.00%	0.42		0.00		0.00		0.00		0.00	32.00%	4.43		0.00		0.00		0.00		0.00		0.00		0.00		0.00
acryl-R pigmented seam B5504		0.00		0.00		0.00		0.00		0.00		0.00		0.00	44.00%	0.24		0.00		0.00		0.00		0.00		0.00
unsaturated polyester resin		0.00		0.00		0.00		0.00	41.91%	24.92		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00
colonial white neo gel-kote GC1-5054		0.00		0.00		0.00		0.00	32.67%	3.04		0.00		0.00		0.00		0.00		0.00		0.00		0.00	3.00%	0.28
duraglas putty NA		0.00		0.00		0.00		0.00	20.00%	0.25		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00
tac free bodyfiller A297		0.00		0.00		0.00		0.00	20.00%	21.90		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00
kambi puty K3005		0.00		0.00		0.00		0.00		0.00		0.00		0.00	1.40%	0.02	6.80%	0.10		0.00		0.00		0.00		0.00
dynasty white gelcoat GM15120		0.00		0.00		0.00		0.00	31.32%	23.52		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00
stypol 040-4358		0.00		0.00		0.00		0.00	39.13%	6.04		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00
patching aid resin solution CR-0425		0.00		0.00		0.00		0.00	68.78%	2.99		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00
polyester fiberglass repair 370		0.00		0.00		0.00		0.00	40.00%	0.08		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00
Cleaners/Solvents																										
pure grade lacquer thinner	10.00%	16.43		0.00		0.00	10.00%	16.43		0.00		0.00	10.00%	16.43	60.00%	98.55		0.00		0.00		0.00		0.00		0.00
solvent anti-stat prep DX103		0.00		0.00	5.00%	0.07		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00
pre-kleano 900		0.00		0.00	5.00%	2.06		0.00		0.00		0.00		0.00	5.00%	2.06	10.00%	4.13		0.00		0.00		0.00		0.00
acetone (* delisted VOC)		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00
sher-will clean R7K156		0.00		0.00		0.00		0.00		0.00		0.00		0.00	10.00%	0.70		0.00		0.00		0.00		0.00		0.00
3M perfect-it II rubbing compound 5973		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00
3M rubbing compound 5954/55/56		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00
HAZARDOUS WASTE (1)		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00
PAINT REPAIR AREA																										
Solvent/Cleaners																										
acetone hi-moisture (* delisted VOC)		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00
cleaner DX533		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00
aqua mate cleaner W4K157		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00
low VOC paint cleaner DX380		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00
pre-clean cleaner DX330		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00
sprayon glass cleaner 880		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00
gun cleaner 4-GCL UN1263		0.00		0.00		0.00		0.00		0.00		0.00	9.00%	0.05	27.00%	0.14		0.00		0.00		0.00		0.00		0.00
all purpose lacquer thinner DTL10		0.00		0.00		0.00		0.00		0.00		0.00		0.00	50.00%	0.06	30.00%	0.04		0.00		0.00		0.00		0.00
thinner DTL151G		0.00		0.00		0.00		0.00		0.00		0.00		0.00	15.00%	0.01		0.00		0.00		0.00		0.00		0.00
all purpose thinner DTL16G		0.00		0.00		0.00		0.00		0.00		0.00		0.00	25.00%	0.88	20.00%	0.70		0.00		0.00		0.00		0.00
lacquer thinner 5033	10.00%	0.12		0.00		0.00	15.00%	0.19		0.00		0.00	5.00%	0.06	60.00%	0.75		0.00		0.00		0.00		0.00		0.00
solvent reducer DRR1185		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00
WASTE		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00
Paint																										
activator NCX255		0.00		0.00		0.00		0.00		0.00		0.00		0.00	25.00%	0.02		0.00		0.00		0.00		0.00		0.00
additive paint supercharger DFX7		0.00		0.00		0.00		0.00		0.00		0.00		0.00	15.00%	0.11		0.00		0.00		0.00		0.00		0.00
blender acrylic color DXA100	2.00%	0.00		0.00		0.00		0.00		0.00		0.00		0.00	45.00%	0.03	15.00%	0.01		0.00		0.00		0.00		0.00
blender universal DX830		0.00		0.00		0.00		0.00		0.00		0.00		0.00	20.00%	0.01		0.00		0.00		0.00		0.00		0.00
catalyst DX84		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00
catalyst DU5		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00
catalyst NCX275		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00	10.00%	0.00		0.00		0.00		0.00		0.00
catalyst deltron DAU2		0.00		0.00		0.00		0.00		0.00		0.00		0.00	15.00%	0.01		0.00		0.00		0.00		0.00		0.00
catalyst pretreatment NCX290		0.00		0.00		0.00		0.00		0.00		0.00		0.00	10.00%	0.01	5.00%	0.01		0.00		0.00		0.00		0.00
compliant clearcoat DCD35		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00
fish eye preventer DX77		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00	100.00%	0.09		0.00		0.00		0.00		0.00
hardener DU4		0.00		0.00		0.00		0.00		0.00		0.00		0.00	10.00%	0.18		0.00		0.00		0.00		0.00		0.00
paint DBU-	10.00%	0.83		0.00		0.00		0.00		0.00		0.00		0.00	15.00%	1.25	10.00%	0.83		0.00		0.00		0.00		0.00
paint DCU2020		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00	25.00%	0.03		0.00		0.00		0.00		0.00
broma gloss spray lacquer 110/115/109	8.00%	0.01		0.00		0.00		0.00		0.00		0.00		0.00	10.00%	0.01	16.05%	0.02		0.00		0.00		0.00		0.00
paint color DAU-	10.00%	0.00		0.00		0.00		0.00		0.00		0.00		0.00	15.00%	0.01	5.00%	0.00		0.00		0.00		0.00		0.00
paint D.I.U. basecoat DIU-1&2	10.00%	0.02		0.00		0.00		0.00		0.00		0.00		0.00	15.00%	0.02	5.00%	0.01		0.00		0.00		0.00		0.00
paint duracryl acrylic lacquer DDL	40.00%	0.06		0.00		0.00		0.00		0.00		0.00	15.00%	0.02	45.00%	0.06	15.00%	0.02		0.00		0.00		0.00		0.00
primer NCP250		0.00		0.00		0.00		0.00		0.00		0.00		0.00	10.00%	0.03	10.00%	0.03		0.00		0.00		0.00		0.00
reducer DT860/DT870		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00
reducer warm temperature DT885	20.00%	0.25		0.00		0.00		0.00		0.00		0.00		0.00	10.00%	0.13	10.00%	0.13		0.00		0.00		0.00		0.00
sealer 3.5 VOC NCS1990		0.00		0.00		0.00		0.00		0.00		0.00	15.00%	0.03		0.00		0.00		0.00		0.00		0.00		0.00
solvent anti-stat prep DX103		0.00		0.00		0.00	5.00%	0.02		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00
FINAL INSPECTION AREA																										
Cleaners/Solvents																										

sher-will-clean R7K156		0.00		0.00		0.00		0.00		0.00		0.00		0.00	10.00%	2.45		0.00		0.00		0.00		0.00		0.00
brake cleaner 4800		0.00		0.00		0.00	30.00%	5.55		0.00		0.00		0.00	40.00%	7.41		0.00		0.00		0.00		0.00		0.00
citrus cleaner CM-911		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00
fantastic II		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00
nu panel DAP 14220		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00
sprayon glass SPR00880		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00
3M natural		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00
acetone (* delisted VOC)		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00
lubricant spray silicon MC-43		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00	20.00%	0.15		0.00		0.00		0.00
terp-a-clean		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00
bea-tween carpet		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00
Paints																										
broma spray 115/110		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00
mohawk lacover 30		0.00		0.00		0.00	3.60%	0.02		0.00		0.00	2.00%	0.01		0.00		0.00		0.00		0.00		0.00		0.00
Sealants/Adhesives																										
sealant silicone 795		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00
manus bond		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00
multi-purpose S-235		0.00		0.00		0.00		0.00		0.00		0.00		0.00	4.00%	0.03		0.00		0.00		0.00		0.00		0.00
super tak high performance		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00	35.00%	0.46		0.00		0.00		0.00
UNDERCOATING																										
aqua seal 2000		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00
ruberized 735		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00	10.00%	6.08	20.00%	12.16	20.00%	12.16		
POTENTIAL EMISSIONS (tons/yr)		**84.23**		**0.01**		**10.29**		**37.20**		**82.74**		**4.43**		**105.17**		**259.49**		**77.36**		**0.61**		**6.08**		**12.16**		**12.44**
		Total HAPS potential:		**692.19**																						

EMISSIONS BREAKDOWN PER PROCESS LINE

Full Paint Line #1 based on: (0.5/1) of full paint prep & paint, (0.5/3.5) of paint repair, (0.5/3.5) of final inspection, and (0.5/3.5) of undercoating

potential	17.40	0.00	5.14	9.41	41.37	2.22	37.56	57.78	20.30	0.09	0.87	1.74	1.88
	Combined HAPS:	195.76											
as limited	2.81	0.00	0.83	1.52	6.68	0.36	6.07	9.33	3.28	0.01	0.14	0.28	0.30
	Combined HAPS:	31.62											

Full Paint Line #2 based on: (0.5/1) of full paint prep & paint, (0.5/3.5) of paint repair, (0.5/3.5) of final inspection, and (0.5/3.5) of undercoating

potential	17.40	0.00	5.14	9.41	41.37	2.22	37.56	57.78	20.30	0.09	0.87	1.74	1.88
	Combined HAPS:	195.76											
as limited	2.81	0.00	0.83	1.52	6.68	0.36	6.07	9.33	3.28	0.01	0.14	0.28	0.30
	Combined HAPS:	31.62											

Partial Paint Line #1 based on: (1.25/2.5) of partial paint prep & paint, (1.25/3.5) of paint repair, (1.25/3.5) of final inspection, and (1.25/3.5) of undercoating

potential	24.71	0.00	0.00	9.19	0.00	0.00	15.03	71.96	18.38	0.22	2.17	4.34	4.34
	Combined HAPS:	150.34											
as limited	3.99	0.00	0.00	1.49	0.00	0.00	2.43	11.62	2.97	0.03	0.35	0.70	0.70
	Combined HAPS:	24.28											

Partial Paint Line #2 based on: (1.25/2.5) of partial paint prep & paint, (1.25/3.5) of paint repair, (1.25/3.5) of final inspection, and (1.25/3.5) of undercoating

potential	24.71	0.00	0.00	9.19	0.00	0.00	15.03	71.96	18.38	0.22	2.17	4.34	4.34
	Combined HAPS:	150.34											
as limited	3.99	0.00	0.00	1.49	0.00	0.00	2.43	11.62	2.97	0.03	0.35	0.70	0.70
	Combined HAPS:	24.28											

Indiana Department of Environmental Management
Office of Air Management

Addendum to the
Technical Support Document for New Construction and Operation

Source Name:	Monaco Coach Corporation
Source Location:	400 Indiana Avenue, Wakarusa, IN 46573
County:	Elkhart
Construction Permit No.:	CP-039-8662-00017
SIC Code:	3716
Permit Reviewer:	Janusz Johnson

On November 24, 1997, the Office of Air Management (OAM) had a notice published by Truth Publishing, Elkhart, Indiana, stating that Monaco Coach Corporation (formerly called Holiday Rambler Division) had applied for a construction permit for a new motor home painting process designated as Plant No.2. 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.

On December 4 and December 15, 1997, Monaco Coach Corporation submitted written comments on the proposed Plant 2 construction permit. The summary of the comments and corresponding responses is as follows:

Comment 1: Items (h) through (m) on Page 2 of 10 of the Construction Permit are insignificant sources. IDEM should remove these items from the permit because they are insignificant.

Response 1: For the purposes of Part 70 (Title V) source permits, as defined in 326 IAC 2-7-1(20), the facilities listed in Items (h) through (m) do fall under the insignificant activities category for natural gas combustion sources with less than 10 million Btu per hour heat input. However, this definition applies only to facilities under the Part 70 operating permit program. For the purposes of the State construction permit rules (326 IAC 2-1) all units have to be incorporated in the permitting level determination. The facilities in question here are listed in the CP because they are new facilities subject to the State construction permit rules. Therefore, there is no change due to this comment.

Comment 2: Item (i) on Page 2 of 10 - The facilities description should be changed to: One (1) air rotation unit, one (1) natural gas fired air make-up unit and two (2) natural gas fired unit heaters located in the final paint production area with a maximum heat input rates of 0.4, 7.425 and 0.1 million British thermal units per hour, respectively.

Note: Further discussion of this comment with Monaco Coach clarified that the air rotation unit is 0.4 MMBtu/hr, the air make-up unit is 7.425 MMBtu/hr, and each of the heaters is 0.1 MMBtu/hr.

Response 2: Item (i) has been changed from:

(i) two (2) natural gas fired air make-up units and one (1) natural gas fired unit heater located in the final paint production area with maximum heat input rates of 0.4, 7.425, and 0.1 million British thermal units per hour, respectively;

to include the one (1) air rotation unit and more clearly specify the size of all the units as follows (bold emphasis added):

(i) **one (1) air rotation unit**, **one (1)** natural gas fired air make-up unit and **two (2)** natural gas fired unit heaters located in the final paint production area with maximum heat input rates of 0.4, 7.425, 0.1 **and 0.1** million British thermal units per hour, respectively;

These changes decrease the source's potential to combust natural gas by 7.325 MMBtu/hr. The decreased emissions related to this change are:

Pollutant	Potential Emissions (tons/year)
Particulate Matter (PM)	-0.4
Particulate Matter (PM10)	-0.4
Sulfur Dioxide (SO_2)	-0.0
Volatile Organic Compounds (VOC)	-0.2
Carbon Monoxide (CO)	-0.7
Nitrogen Oxides (NO_x)	-3.2
Single Hazardous Air Pollutant (HAP)	0.0
Combination of HAPs	0.0

Due to these minimal changes in emissions, there is no change to the permit conditions.

Comment 3: Item (k) on Page 2 of 10 - The facilities description should be changed to: Two (2) natural gas fired air make-up units with a maximum heat input rate of 3.85 million British thermal units per hour, each, located in the final finish area.

Response 3: Item (k) has been changed from:

(k) two (2) natural gas fired air make-up units with a maximum heat input rate of 1.925 million British thermal units per hour, each, located in the final finish area;

to reflect higher maximum heat input rates for the units as follows (bold emphasis added):

(k) two (2) natural gas fired air make-up units with a maximum heat input rate of **3.85** million British thermal units per hour, each, located in the final finish area;

This change increases the source's potential to combust natural gas by 3.85 MMBtu/hr. The additional emissions related to this change are:

Pollutant	Potential Emissions (tons/year)
Particulate Matter (PM)	0.2
Particulate Matter (PM10)	0.2
Sulfur Dioxide (SO_2)	0.0
Volatile Organic Compounds (VOC)	0.1
Carbon Monoxide (CO)	0.4
Nitrogen Oxides (NO_x)	1.7
Single Hazardous Air Pollutant (HAP)	0.0
Combination of HAPs	0.0

Due to these minimal changes in emissions, there is no change to the permit conditions.

Comment 4: Item (l) on Page 2 of 10 - The facilities description should be changed to: Two (2) natural gas fired air make-up units located in the large repair booth, each with a maximum heat input rate of 2.5 million British thermal units per hour, and two (2) natural gas fired air make-up units located in the single repair booths (one per booth), each with a maximum heat input rate of 3.24 million British thermal units per hour.

Response 4: Item (l) has been changed from:

(l) two (2) natural gas fired heaters located in the large repair booth, each with a maximum heat input rate of 2.5 million British thermal units per hour, and four (4) natural gas fired heaters located in the single repair booths (two per booth), each with a maximum heat input rate of 3.24 million British thermal units per hour;

to reflect the decreased number of air make-up units located in the single repair booths as follows (bold emphasis added):

(l) two (2) natural gas fired heaters located in the large repair booth, each with a maximum heat input rate of 2.5 million British thermal units per hour, and **two (2)** natural gas fired heaters located in the single repair booths (**one** per booth), each with a maximum heat input rate of 3.24 million British thermal units per hour;

This change decreases the source's potential to combust natural gas by 6.48 MMBtu/hr. The reduction of emissions related to this change is:

Pollutant	Potential Emissions (tons/year)
Particulate Matter (PM)	-0.3
Particulate Matter (PM10)	-0.3
Sulfur Dioxide (SO_2)	-0.0
Volatile Organic Compounds (VOC)	-0.1
Carbon Monoxide (CO)	-0.6
Nitrogen Oxides (NO_x)	-2.8
Single Hazardous Air Pollutant (HAP)	0.0
Combination of HAPs	0.0

Due to these minimal changes in emissions, there is no change to the permit conditions.

Comment 5: New items (n), (o), and (p) should be added to Page 2 of 10 as follows:

(n) One (1) natural gas fired air make-up unit located in the undercoating area, with a maximum heat input rate of 1.0 million British thermal units per hour.

(o) Two (2) natural gas fired unit heaters located in the office and break room area, each with a maximum heat input rate of 0.1 million British thermal units per hour.

(p) Two (2) natural gas fired infra-red unit heaters located in the undercoating area, each with a maximum heat input rate of 0.04 million British thermal units per hour.

Response 5: Items (n), (o), and (p) have been added as Page 3 of 12 and all subsequent pages have been renumbered appropriately. This change increases the source's potential to combust natural gas by 1.14 MMBtu/hr. The additional emissions related to this change are:

Pollutant	Potential Emissions (tons/year)
Particulate Matter (PM)	0.1
Particulate Matter (PM10)	0.1
Sulfur Dioxide (SO_2)	0.0
Volatile Organic Compounds (VOC)	0.0
Carbon Monoxide (CO)	0.1
Nitrogen Oxides (NO_x)	0.5
Single Hazardous Air Pollutant (HAP)	0.0
Combination of HAPs	0.0

Due to these minimal changes in emissions, there is no change to the permit conditions.

Comment 6: Condition No. 8 on Page 5 of 10 - Emission Reporting rule should specify annual reports will be submitted in accordance with the requirements specified in 326 IAC 2-6-4. The Emission Reporting rule is currently being modified and may include modifications to the reporting date. Any reference to a specific reporting date in the permit, could be contrary to the amended rule and could subject the facility to more egregious reporting requirements.

Response 6: The intent of the condition language in the permit is to reflect the requirements of applicable rules to extent necessary to facilitate compliance. This language is not meant to anticipate changes to applicable rules. Condition No. 8 is consistent with the content of 326 IAC 2-6-4 currently and the condition shall remain as originally worded. If the rule changes in the future, a request for administrative amendment to the permit may be filed to revise Condition No. 8. Therefore, there is no change to this condition due to this comment.

Comment 7: Condition No. 7 on page 6 of 10 - Monaco Coach agrees to a 12 month averaging period for the various facilities but disagrees with the 11/12 reduction factor on all emission limits. Because of the nature of recordkeeping at Monaco Coach, monthly records are the most accurate and the most reasonably available. Hence, monthly records are the most representative and practical. However, our production is very cyclic and monthly limits would add unfair restriction on our production capacity. Monaco Coach contends that 12 month rolling averages based on requested source limit of 210 tons, adequately demonstrates compliance with PSD limits.

The quarterly report, Page 10 of 10, language after the heading “Limit” should be deleted in its entirety and replaced with the following: “Input volatile organic compounds (VOC) to the Plant 2 facilities shall be limited to 210 tons per twelve (12) consecutive month period.”

Response 7: Predictable VOC input usage can be limited on a fixed monthly basis to ensure that the Potential to Emit (PTE) is less than the PSD threshold of 250 tons of VOC per year. This fixed monthly basis does not have to evenly distribute the limited emissions over twelve months, but each month must have its own established limit such that the total of those monthly limits are less than the annual threshold. However, should the input VOC usage be unpredictable to the extent that fixed monthly limits are not feasible, daily records are required to demonstrate compliance.

The OAM does not require such daily records for an unpredictable situation provided emissions from the source do not exceed 11/12 of the annual limit on a consecutive 12 month basis. The 1/12 reduction accounts for unexpected and unpredictable peaks in input usage. Because Monaco Coach has stated that the painting operation VOC input usage will be variable and unpredictable, the synthetic minor limits established in the permit shall remain as originally specified.

Comment 8: Condition No. 10 on Page 6 of 10 - Although Monaco Coach has purchased a dust control system for the paint prep area, the control system is not required to meet compliance requirements with 326 IAC 6-3 (Process Operations). In addition, not all sanding operations are connected to the dust collector. Monaco requests that this section be changed to state, “That pursuant to 326 IAC 6-3 (Process Operations) emissions associated with paint prep activities shall comply with 326 IAC 6-3-2 (c) using the following equation:

Response 8: The condition (now on Page 7 of 12) has been changed from:

10. That pursuant to 326 IAC 6-3 (Process Operations), the dust collectors shall be in operation at all times when sanding is being done, and the emissions shall comply with 326 IAC 6-3-2(c) using the following equation:

to require operation of the sanding dust collectors at all times that the sanding operations which have dust collectors are in operation and that the emissions from all sanding operations, controlled and uncontrolled, shall comply with 326 IAC 6-3-2 (c) as follows (bold emphasis added):

10. That pursuant to 326 IAC 6-3 (Process Operations), the dust collectors shall be in operation at all times when sanding **operations which have dust collectors are operating**, and the emissions **from all sanding, controlled and uncontrolled,** shall comply with 326 IAC 6-3-2(c) using the following equation:

Comment 9: Condition No. 12 on Page 7 of 10 - Weekly inspection of the exhaust should be performed to evaluate visible emissions only. The presence of overspray on rooftops or on the nearby ground has no relevance to compliance with the visible emissions definition or the process weight rule (326 IAC 6-3).

Weekly visible emissions evaluations should not be formal Method 9 observations, but instead be informal determinations of “normal” or “abnormal” conditions. A normal/abnormal evaluation would ensure that the control devices are working correctly.

Response 9: The weekly inspections of the coating emissions from the stack and the presence of overspray on the rooftops and the nearby ground is intended to ensure continuous compliance. Evidence of coating emissions from the stack or on the rooftops or ground is an indication that the spray booth controls may not be functioning correctly. The condition (Page 8 of 12) shall remain as originally stated with the exception of the addition of “spray booths” as the “(unit/operation)” in Condition No. 12.(b). This change corrects a typographical error.

It is not the intent of this condition to require Method 9 observations. The following language has also been added to this condition to further define “visible emissions evaluations” and clarify what is required:

> A trained employee shall record whether emissions are normal or abnormal. For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time. A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.

Comment 10: Item (a) of Condition No. 14 on Page 8 of 10 - For clarification the last sentence in section (a) should state “supporting records which are to be maintained at the facility, shall include the coating, thinner and solvent usage, material safety data sheets (MSDS) or certified products data sheets (CPDS), and date(s) of use for regulated materials.

Response 10: The last sentence in Item (a) of Condition No. 14 (Page 9 of 12) has been modified from:

> These records shall include the coating, thinner and clean up solvent usage, material safety data sheets (MSDS) and the date of use.

to include certified products data sheets (CPDS) and specification of what materials require recordkeeping as follows (bold emphasis added):

> These records shall include the coating, thinner and clean up solvent usage, material safety data sheets (MSDS) **or certified products data sheets (CPDS)** and the date**(s)** of use **for VOC and HAP containing materials**.

Comment 11: Construction Condition No. 1 - The second sentence in this condition should be revised to require IDEM approval only for changes that increase allowable emissions above the permitting thresholds. The condition currently requires IDEM approval "[p]rior to any proposed change in construction which may *affect* allowable emissions." The condition as currently written would require Monaco Coach to obtain IDEM approval prior to any change even if that change results in a reduction in emissions. Requiring IDEM approval for a change which would decrease emissions is contrary to 326 IAC 2-1.

Response 11: The intent of this condition is to ensure that what is constructed under the permit issued is consistent with the application submitted. Information submitted in the application is considered part of the permit and can be a basis for subsequent reviews and compliance inspections or enforcement actions.

It is possible that a decrease in emissions could change the level of approval required for a source under 326 IAC 2-1. For example, a source with a synthetic minor limitation makes a change to the equipment being constructed that decreases the potential emissions to below the level at which the synthetic minor limitation was taken. The source would no longer need the synthetic minor limitation and quarterly reporting requirements as a result of the change. Therefore, requiring IDEM approval for any proposed change is not contrary to the rule, it simply ensures that the rule is implemented fairly and correctly. The condition shall remain as currently written.

Comment 12: Operation Condition No. 13(a) - The final sentence in the first paragraph of operation condition 13(a) should be replaced with the following: "[t]he base coat applied shall be as high in solids as available at the time the permit application was submitted." The proposed permit states that "[t]he base coats applied shall be as high in solids *as currently available*." The phrase "as currently available" could result in BACT changing over time as the solids content in base coats changes which is inconsistent with the concept of BACT.

Response 12: The condition (Page 8 of 12) has been revised from:

(a) Application of coatings (primer, base, top, and clear coats) in the production line paint booths shall be done with high volume-low pressure (HVLP) spray equipment. The base coat applied shall be as high in solids as currently available.

to better clarify its intent as follows (bold emphasis added):

13.(a) Application of coatings (primer, base, top, and clear coats) in the production line paint booths shall be done with high volume-low pressure (HVLP) spray equipment. The base coatings applied shall **contain no less than eight and two tenths percent (8.2%) solids by weight and no more than 6.86 pounds of VOC per gallon of coating less water.**

Comment 13: Operation Condition No. 13(g)(3) - IDEM should change the sentence "[s]pills and drips shall be cleaned up immediately" to "[s]pills and drips should be cleaned up as soon as practicable." This language would allow Monaco Coach a reasonable amount of time to respond to spills and drips.

Response 13: The condition (Page 9 of 12) has been revised from:

13.(g)(3) The application equipment operators shall be instructed and trained on the methods and practices utilized to minimize overspray, avoid drips and spills. Spills and drips shall be cleaned up immediately.

to the following (bold emphasis added):

13.(g)(3) The application equipment operators shall be instructed and trained on the methods and practices utilized to minimize overspray, avoid drips and spills. Spills and drips shall be cleaned up **as soon as practicable**.

Comment 14: Operation Condition 16(b) - Monaco Coach proposes that the words "when this permit is issued" found at the end of the condition be deleted and replaced with the words "when the source commences operation." 326 IAC 1-5-2 requires the preparation and submission of Emergency Reduction Plans "no later than... one-hundred eighty days *from the date on which a new source commences operation*." (Emphasis added).

Response 14: The condition (Page 10 of 12) has been changed from:

16.(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 date on which this permit is issued.

to the following (bold emphasis added):

16.(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 date on which this **new source commences operation**.

Comment 15: Operation Condition 16(c) - This condition should be revised to delete the last sentence in its entirety to be consistent with the provisions of 326 IAC 1-5-2. 326 IAC 1-5-2 does not allow IDEM to supply an Emergency Response Plan if the Permittee does not submit an approvable plan.

Response 15: If an initially submitted ERP is disapproved, 326 IAC 1-5-2 provides an additional thirty (30) days for the permittee to resolve the differences and submit an approvable ERP. Should the permittee fail to meet the requirements of this rule, the OAM does have the authority, pursuant to 326 IAC 2-1-3(i)(8), to impose such conditions on the permit as necessary to ensure that the source or facility will comply with all applicable rules; and that the ambient air quality standards will be maintained and that the public health is protected. The condition shall remain as originally worded.