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STATE OF INDIANA
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR MANAGEMENT

Account # 3240-411100-140000
State Form 46978(1-95)

STATE OF INDIANA
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR MANAGEMENT
CONSTRUCTION PERMIT APPLICATION

Form A-C

GENERAL INFORMATION

1.

Company name	ARVIN NORTH AMERICAN AUTOMOTIVE, FRANKLIN PLANT

2.

Phone No.	(317) 736-7111	Fax No.	

3.

Mailing address	1001 HURRICANE STREET, FRANKLIN, INDIANA 46131

4.

Address of source	1001 HURRICANE St. FRANKLIN, IN 46131	County	JOHNSON

5. **Person to contact:** (should be an individual who is familiar with the submitted application)

Name	ROBERT ELLIOT				
Title	FACILITY MANAGER	Phone No.	(317) 736-7111 EXTENTION 2915	Fax No.	

Is this person a consultant?	NO	Name of consulting firm	
Address of consulting firm			

6. **Provide the company's prior name and location if a change has occurred in the past six (6) years:**

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Name	
Location	

7. **Standard Industrial Classification Code:**

3714

(If you do not know the SIC Code, a short description of the business will do.)

8. **Describe the process equipment covered in this application:**

PAINTING OPERATIONS FOR THE MANUFACTURE OF AUTOMOTIVE EXHAUST PIPE AND MUFFLERS

Air pollution control equipment being installed:

NONE

9.

Are you constructing an entirely new plant or facility?		Are you modifying an existing plant or facility?	
Yes	No X	Yes X	No

Approved by the State Board of Accounts, 1995

State Form 46978(1-95) General Information Form A-C-2

10. **If the application is to modify an existing plant or facility, please attach a copy of any previously issued air construction permit(s)/registration(s) associated with this modification.**

11. Date construction will or did start Mo./Day/Yr.	12. Date construction will be or was completed Mo./Day/Yr.	13. Date operation will or did begin Mo./Day/Yr.
Act.	Act.	Act. 10/1/95
Est.	Est.	Est. 10/1/95

14.

Library's name	FRANKLIN PUBLIC LIBRARY
Address	401 STATE ST.
Phone number	FRANKLIN, IN 46131

15.

Did you complete the preview construction checklist? yes or no	YES

16. I hereby certify that the information submitted this 22 day of SEPTEMBER, 19 95 is true and complete to the best of my knowledge.

Signature of applicant	Robert Elliott	Title	Facility Mgr.

17. Before me a Notary Public in and for said County and State, personally appeared ROBERT ELLIOTT, and being first duly sworn by me upon oath, says that the facts stated in the foregoing instrument are true. Signed and sealed this 22 day of SEPT, 19 95.

Signature of Notary Public	Mark J. Adolay
Printed	MARK J. ADOLAY
My Commission Expires	MAY 15, 1998

Residence of	MARION	County

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STATE OF INDIANA
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR MANAGEMENT

PERMIT APPLICATION: OPERATION OF A PAINT LINE FOR AUTOMOBILE EXHAUST ASSEMBLIES

Submitted to:

State of Indiana
Department of Environmental Management
100 North Senate Avenue
Indianapolis, Indiana 46206

September 18, 1995
5013.002

Submitted by:

Arvin North American Automotive
1001 Hurricane Street
Franklin, Indiana 46131

Prepared by:

Pacific Environmental Services, Inc.
4700 Duke Drive, Suite 150
Mason, Ohio 45040
(513) 398-2556

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SECTION 1

INTRODUCTION

Arvin North American Automotive (Arvin) received a permit to construct (Number: 081-3535) a paint line at its Franklin, Indiana plant (I.D. 081-00020) on February 11, 1994. The paint line consists of a parts washer, paint spray booth with two manual spray guns and a drying oven. Arvin is now requesting a modification of the construction permit and applying for a permit-to-operate the paint line at an increased production rate. The increased production rate will not cause the paint line or the facility as a whole to become a major source. Low-solvent coatings will be used in this coating line to paint motor vehicle exhaust systems. The facility is located at 1001 Hurricane Street in Franklin, Johnson County, Indiana. The location of the plant is shown in a plot plan included with Indiana Department of Environmental Management (IDEM) applications in Appendix A.

The U.S. Environmental Protection Agency (EPA) designated Johnson County at Part 81.315 of Title 40 of the Code of Federal Regulations (40 CFR 81.336) as an attainment area for all criteria pollutants, i.e. existing pollutant concentrations are lower than the National Ambient Air Quality Standards.

The paint line will emit primarily volatile organic compounds (VOC) and small quantities of particulate matter. The parts washer and ovens will emit small quantities of other pollutants, including particulate matter, nitrogen oxides, and carbon monoxide, from the combustion of natural gas.

The existing facility is a minor source with regard to Prevention of Significant Deterioration (PSD) requirements. Arvin currently operates two paint lines at the Franklin plant with actual VOC emissions of approximately 10.5 tons per year. Arvin currently has permitted emission levels of 33.6 tons from the Cadillac line. Arvin is requesting that their operating permit allow them to emit up to 99 tons of VOC emissions per year. Hence, this facility will continue as a minor source according to Article 2, Section 1 of Title 326 of the Indiana Administrative Code (326 IAC 2-1-1). This document constitutes Arvin's permit application.

Facility wide emissions of criteria pollutants will remain below 250 tons per year and

VOC emissions will increase less than 100 tons. Therefore, Arvin is subject to the provisions of Section 9: Article 8, "Miscellaneous Metal Coating Operations". The definition of miscellaneous metal coating includes facilities which have a Standard Industrial Classification (SIC) Code in major group #37. Arvin's SIC code is 3714, "Motor Vehicle Parts and Accessories". Section 9 establishes VOC content limits for various types of coatings. Because the paint applied to the exterior of motor vehicle exhaust systems is designed for exposure to temperatures consistently above 95°C and constant exposure to outdoor weather and is therefore, considered an "extreme performance coating". The air emissions limit for an extreme performance coating in Section 9 is 3.5 pounds of VOC per gallon of coating excluding water. Arvin will comply with this requirement by using coatings that have a VOC content below that level.

SECTION 2

PERMIT APPLICATION

Arvin is applying for a construction permit modification and a permit-to-operate an exhaust system paint line at its plant in Franklin, Indiana. VOC emissions from the paint line will be controlled by using paint that does not exceed 3.5 pounds of VOC materials per gallon as specified in the regulation for miscellaneous metal parts coating.

This document constitutes a complete construction permit application to install the proposed emission units. Completed IDEM application forms are attached as Appendix A of this document. A number of analyses were performed in support of the permit application. The findings of theses analyses are summarized below.

- This permit application includes the required state forms and other analyses.
- Arvin will comply with the requirements of Section 9, Article 8, Title 326 of the IAC by using coatings with a VOC content less than 3.5 pounds per gallon of coating excluding water. In accordance with 326 IAC 8-1-6, Arvin is not required to meet any further (BACT) requirements.
- The existing facility is a minor source located in an attainment area. The maximum emissions after this modification are 99 tons per year of VOC.
- No maximum achievable control technology has been established for this source category.

This document and it's appendices represent Arvin's request for approval of the installation of these new emission units.

SECTION 3

PROCESS DESCRIPTION

Arvin operates a plant 1001 Hurricane Street, Franklin Indiana 46131 to assemble motor vehicle exhaust systems. A plot plan of the facility is included with IDEM applications in Appendix A.

The process flow for the paint line is given in Appendix A. The paint line can apply up to 50 gallons of paint per hour. Normal operation is approximately 95 assemblies per hour. All units in the paint line operate 24 hours per day, 365 days per year. The assemblies are cleaned in a parts washer using alkaline wash prior to painting. Natural gas is burned in the makeup air unit and in stages 1,2, and 5 of the parts water. The exterior of the assembled mufflers are coated in the paint spray booth. Two manual spray guns are used to apply up to 0.044 gallons of paint per assembly. The spray guns employ an electrostatic charge to atomize the paint before it is applied to the mufflers. Only paint that complies with the limit for extreme performance miscellaneous metals parts coating is used. The guns are cleaned using toluene. The paint is cured in a bake oven heated by natural gas.

Appendix B contains Material Safety Data Sheets (MSDS) of the coatings and the clean-up solvent that are used on this line.

SECTION 4

EMISSION RATES

Emission rates have been estimated to determine the applicability of regulatory requirements with regard to whether the source is a major or minor source of air emissions. The net increase in emissions due to modification of an existing source determines whether a proposed modification will be considered major. Major sources and major modifications in attainment areas are subject to prevention of significant deterioration (PSD) regulations. Emission rates and stack data are basic inputs to dispersion models which are used to determine air quality impacts and associated risk to human health.

VOC EMISSIONS FROM PROPOSED MODIFICATION

Based on projected use of paint and solvents, the maximum potential VOC emissions from the cadillac painting operation will not exceed 99 tons per year. Current operations and coating composition are based on the following factors:

- Coating used per assembly: $\geq$ 0.044 gallons per assembly
- Emissions per gallon of coating: 3.5 pounds per gallon
- Solvent used per assembly: $\geq$0.00025 gallons per assembly
- Solvent density: 7.24 pounds per gallon
- Maximum hourly paint application rate: 50 gallons per gun
- Average operating rate: 95 assemblies per hour
- Operating schedule: 8760 hours per year

The solvent is only used for cleaning the internal components of the paint guns and supply lines. The coating will comply with the extreme performance miscellaneous metal parts coating restriction of 3.5 pounds of VOC per gallon of coating excluding water as delivered to the spray gun. The maximum hourly VOC emission rates from the cadillac paint line are summarized in Table 4.1.

EMISSIONS OF OTHER POLLUTANTS

The paint booth will also emit small quantities of particulate matter from paint overspray. Particulate emissions are controlled by lining the interior of the paint booth with a paper filter. The parts washer (stages 1,2 and 5) and the drying oven use natural gas as fuel. As a result small quantities of nitrogen oxides (NO_x), carbon monoxide (CO), and particulate matter (PM_{10}) will be emitted. Smaller amounts of sulfur dioxide (SO_2) will also be emitted. A maximum of 10200 cubic feet of natural gas will be consumed per hour. An estimate of non-VOC emissions calculated using AP-42 emission factors for commercial boilers is presented in Table 4.2.

AIR TOXICS

The coating contains xylene, glycol ethers and chromium compounds which are listed as Hazardous Air Pollutants by the EPA. Toluene is used as a solvent to clean the paint guns and paint supply lines. Maximum xylene emission rates will be approximately 97 tons annually. Glycol ether emission rates and toluene will be approximately 1 ton per year each. The chromium compounds are in the pigment portion of the paint and will be emitted as solids in the overspray. Chromium emissions are very low and will be controlled by the filter media inside the booth. The paint formulation is subject to change but will be maintained in compliance with the 3.5 pound per gallon VOC requirement.

STACK DATA

In addition to emission data, a dispersion model requires specific stack data including stack height, stack diameter, exhaust gas velocity, and exhaust gas temperature. This data is presented in table 4.3.

Table 4.1

VOC Emission Rates

Source	Emission Point	Potential Emissions (lbs/hr)	Potential Emissions (tons/yr)
Parts Washer			
Stage 1	S-1*	<0.01	<0.1
Stage 2	S-1*	<0.01	<0.1
Stage 4	S-1*	<0.01	<0.1
Paint Spray Booth			
2 Guns	S-2**	140.00	39.6
Drying Oven			
Hot Zone	S-3**	210.00	59.4
Total		**350.00**	**99.0**

* These three units discharge through a common stack
** Assumption that 40% of VOC is emitted by evaporation before assemblies enter the drying oven.

Table 4.2

Emissions of Other Pollutants

Source	Emission Point	Hourly Emissions (lbs/hr)				Annual Emissions (tons/yr)			
		PM_{10}	SO_2	NO_X	CO	PM_{10}	SO_2	NO_X	CO
Parts Washer									
Stage 1	S-1*	0.11	<0.01	0.15	0.05	0.48	<0.1	0.66	0.22
Stage 2	S-1*	0.11	<0.01	0.15	0.05	0.48	<0.1	0.66	0.22
Stage 4	S-1*	0.06	<0.01	0.08	0.03	0.26	<0.1	0.35	0.13
Drying Oven									
Hot Zone	S-3	0.46	<0.01	0.64	0.22	2.0	0.02	2.8	0.96
Total		**0.74**	**<0.01**	**1.02**	**0.35**	**3.22**	**0.02**	**4.47**	**1.53**

* These three units discharge through a common stack

Table 4.3

Stack Data

Emission Point	Height (ft)	Diameter (ft)	Flow Rate (acfm)	Temperature (°F)
S-1	29	2	7030	450
S-2	29	2.5	30000	AMBIENT
S-3	29	1	7500	450

APPENDIX A

COMPLETED IDEM APPLICATION FORMS

STATE OF INDIANA
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR MANAGEMENT

Preview Construction Checklist

Application Form Checklist

Check the appropriate box indicating whether or not each application form is **Applicable** or Not Applicable **(N/A)** to the source's process operations. In order to reduce paper volume, the Office of Air Management requests that only those forms pertinent to the permit application be submitted. If neither box is checked, this will halt or prolong the construction permit review process.

Applicable	*N/A*	*Forms*
X		*Preview Construction Checklist*
	X	*Form A-C General Information*
X		*Form A-C-2 General Information*
X		*Form B Plan Layout and GEP Stack Height Information Sheet*
X		*Form C Solid or Liquid Waste Incinerator Information*
X		*Form D Combustion*
X		*Form E Process Information*
X		*Form F Flow Diagram*
	X	*Form G Storage and Handling of Bulk Material*
	X	*Form H Process for Asphalt Plant*
	X	*Form I Brick and Clay Products*
	X	*Form J-1 Reciprocating Internal Combustion Engines*
	X	*Form J-2 Gas Turbine Engines*
	X	*Form K Concrete Batchers*
	X	*Form L-1 Degreasing: Cold Cleaners*
	X	*Form L-2 Degreasing: Open Top Degreasers*
	X	*Form L-3 Degreasing: Conveyorized Degreasers*
	X	*Form M Dry Cleaners*
	X	*Form N-1 Foundry Operations*
	X	*Form N-2 Foundry Operations*
	X	*Form O Grain Elevators*
	X	*Form P Lime Manufacturing*
X		*Form Q-1 Particulate Control Equipment*
	X	*Form Q-2 Thermal and Catalytic Oxidizers*
	X	*Form R-1 & R-2 Tanks storing VOC and/or HAPs*
	X	*Form S Portland Cement Manufacturing*
	X	*Form T Printing Press*

Applicable	*N/A*	*Forms*
	X	*Form U Sand and Gravel Processing Plant*
	X	Form V *Nonmetallic Mineral Processing Plant*
X		Form W-1 *Surface Coating and Accessory Solvents*
X		Form W-2 *Surface Coating and Accessory Solvents*
	X	Forms W-3 and W-4 *VOC Data Sheets*
	X	Form X *Woodworking and Plastics Machining*
	X	Forms Y1-Y5 *Air Toxic Pollutants*
	X	Form Z *On-Site Soil Remediation*
	X	Form AA *Fugitive Emissions from Vehicular Traffic*
	X	Form BB-1 *Pneumatic Blasting*
	X	Form BB-2 *Mechanical Blasting*
	X	Form CC *Welding and Oxygen Cutting of Metal*
	X	Form DD *Reinforced Plastics and Composites*
	X	Form EE-1 *Affidavit*
	X	Form EE-2 *Owners and Occupants Notified*
	X	Form EE-3 *Affidavit of Nonapplicability*
	X	Form FF *Facility Identification*

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STATE OF INDIANA
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR MANAGEMENT

Form B

Plant Layout and GEP* Stack Height Information Sheet

Form B provides the Modeling and Permitting sections with the appropriate information for determining potential emissions. Please use this page as a check list. If you do not provide the necessary information applicable to your source, the application process **will be stopped.**

1. You ***must*** provide drawings. Each one ***must*** be to scale, with the actual scale shown. All dimensions and units ***must*** be clearly indicated with a brief explanation of what is being shown. Include the following:

   Check when completed

   A. __X__ (feet) Building height(s)
   B. __X__ (feet) Building width(s)
   C. __X__ (feet) Building length(s)
   D. __X__ (feet) Surrounding building(s) dimensions and heights
   F. __X__ (feet) Building(s) distance to property lines
   E. __X__ (feet) Indicate any access-limiting features such as fences
   G. __X__ (feet) Distance to the nearest residence
   H. __X__ Provide Universal Transverse Mercator coordinates of stack(s)or of building/property or latitude/longitude (if available)

2. You ***must*** show the location of all applicable emission points and identify each one. Points required but not limited to:

   A. __X__ Exhaust stacks
   (include stack identification numbers)
   B. _____ Roof monitors
   C. _____ Control devices
   D. _____ Process vents
   (horizontal discharge, vertical discharge, center height of vent)

   Identify <u>each</u> of these emission points under "Stack Identification" on the appropriate forms.

3. You ***must*** show the following:

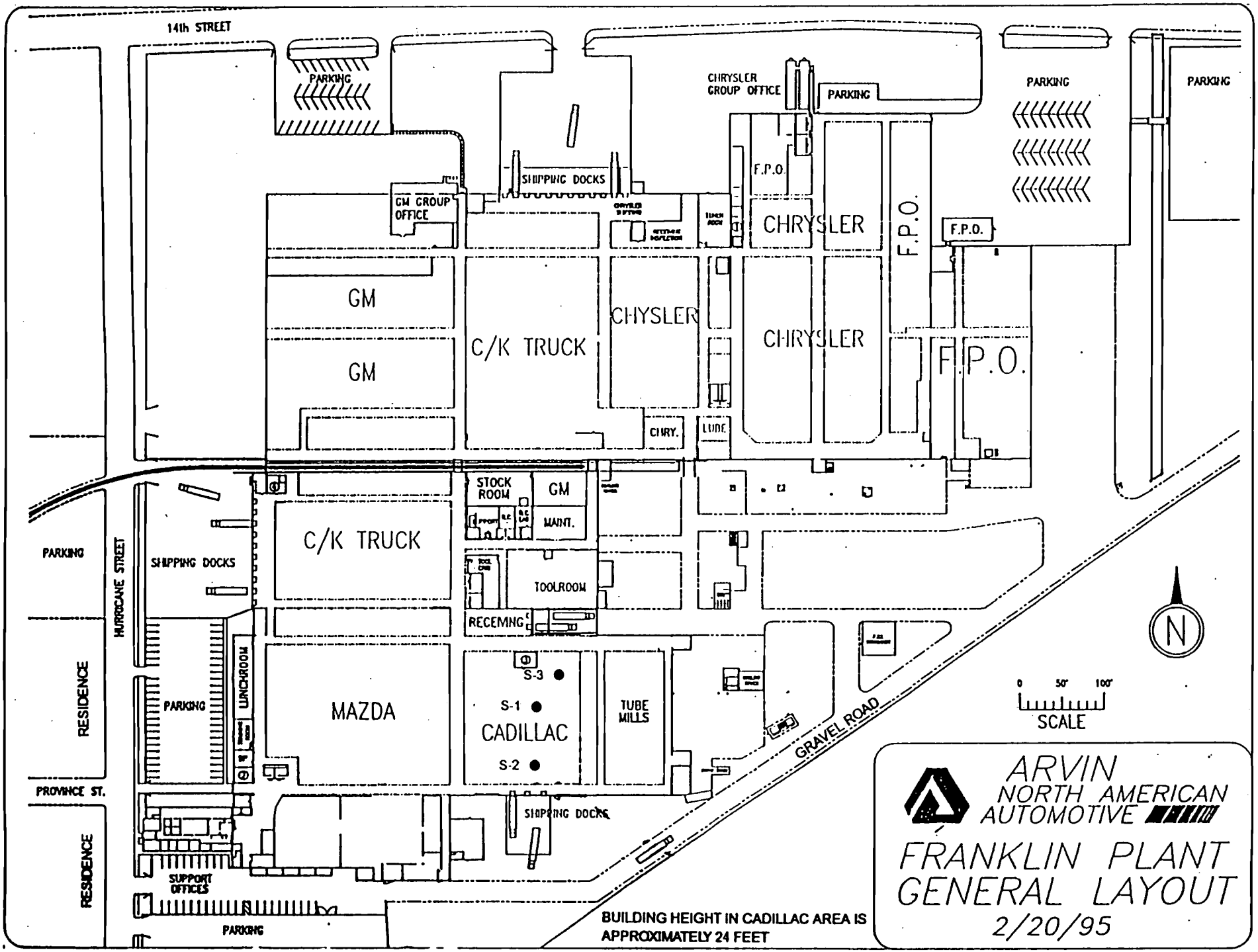
   A. __X__ All roadways
   B. __X__ Description of roadway surfaces
   (gravel, dirt, paved, etc.)
   C. __X__ Indicate number of lanes

4. You ***must*** include a compass pointing north

If fugitive dust is created inside the building then include all doors and/or windows which would allow fugitive dust to escape.

The construction permitting section has provided an example of a source layout. This is only an example and has not been drawn to scale. You are not limited to this illustration; add any information you feel necessary. The layout is very important to the Air Management Modelers, thus accuracy is important. It would be helpful to the modelers if you would provide the building's(s') measurements and indicate the building(s) to be permitted.

*GEP: Good Engineering Practice as defined by 326 IAC 1-7-3.



ALL ROADWAYS AND PARKING AREAS ARE
PAVED UNLESS NOTED OTHERWISE

State Form 46978(1-95)

STATE OF INDIANA
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR MANAGEMENT

Form D

Combustion

1.

Type of heating unit	BURNER - WATER HEATER	ID Number	S-1, WASHER STAGE 1

2.

Heat input rate (million Btu/hour)	1.5

3. **Combustion Process:**

Pulverized (Pv) -Dry Bottom		Spreader Stoker	
Pv - Wet Bottom		Traveling Grate	
Pv - Tangential		Fluidized	
Cyclone		Natural Gas	X

Fill out for each **fuel** and check not applicable if not used.

4. **Fueled by coal:** **Not Applicable** X

Anthracite ____, **Bituminous** ____, **Subbituminous** ____, **Lignite** ____, **Coke** ____

State of Origin	% Ash	% Sulfur	% Moisture (average)	Heating Btu/lb Dry? Moist?

5. **Residual Oil:** **Not Applicable** X

Grade of residual oil used: No.5, No.6	% Sulfur	Heating Value (Btu/gal)	Firing: Normal or Tangential

6. **Distillate Fuel:** **Not Applicable** X

Grade of Distillate fuel used: No.1, No.2, No.4,	% Sulfur	Heating Value (Btu/gal)	Firing: Normal or Tangential (No. 4 only)

7. **Natural gas:** **Not Applicable** ____

Firing:	
Normal	X
Tangential	

8. **Process gas or landfill gas:** **Not Applicable** X

Type of gas	% Sulfur	Heating Value (Btu/ft^3)

9. **Liquified petroleum gas:** Not Applicable X

% Butane	% Propane	% Sulfur

10. **Waste oil:** Not Applicable X

% of heat provided by waste oil	Heating Value (Btu/gal)	% Ash	% Sulfur	% Chlorine	% Lead

11. **Wood, wood waste, and/or Bark:** Not Applicable X

Wood or Wood Waste	Bark only	Wood and Bark	% Moisture	Heating Value (Btu/gal)

12. **Liquid waste:** Not Applicable X

% of heat provided by liquid waste	Heating Value (Btu/gal)	% Sulfur	% Chlorine	% Fluorine	Special or Hazardous waste

13. **Tires or tire derived fuel (TDF):** Not Applicable X

Whole tires	Tire derived fuel	Heating Value (Btu/lb)	% heat supplied by (tires/ TDF)	% Sulfur	% Chromium	% Chlorine	Type of combustion

14. **Solid waste:** Not Applicable X

% heat supplied by combustion of solid waste	Heating value of waste (Btu/lb)	Type of combustor	Special or Hazardous Waste

15. **Emission controls:**

A. Particulate Matter (check all applicable)

None	Baghouse	Wet Scrubber	Electrostatic Precipitator
X			
Other (Specify)			

B. SO2 (check all applicable)

None	X	Scrubber type		Other (specify)	

C. NOx (check all applicable)

None	Low NO_x Burners	Selective Catalytic reduction	Selective non-catalytic reduction
X			
Other (specify)			

16. **Acid Gas (check all applicable)**

None	X	Packed Tower		Scrubber Type		Other (specify)	

17. **Combustion units are boilers, fill out this section:**

Date of installation	
Are any previously installed boilers present (Yes or No)	

If yes, complete:

Identification	Heat Input Capacity	Date Installed	Permit # and/or Registration #

Indicate any acceptable fuel consumption limitations _____Stack Data should be placed on form F.
Provide additional sheets if necessary.

State Form 46978(1-95)

STATE OF INDIANA
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR MANAGEMENT

Form D

Combustion

1.

Type of heating unit	BURNER - WATER HEATER	ID Number	S-1, WASHER STAGE 2

2.

Heat input rate (million Btu/hour)	1.5

3. **Combustion Process:**

Pulverized (Pv) -Dry Bottom		Spreader Stoker	
Pv - Wet Bottom		Traveling Grate	
Pv - Tangential		Fluidized	
Cyclone		Natural Gas	X

Fill out for each fuel and check not applicable if not used.

4. **Fueled by coal:** **Not Applicable** X

Anthracite ____, **Bituminous** ____, **Subbituminous** ____, **Lignite** ____, **Coke** ____

State of Origin	% Ash	% Sulfur	% Moisture (average)	Heating Btu/lb Dry? Moist?

5. **Residual Oil:** **Not Applicable** X

Grade of residual oil used: No.5, No.6	% Sulfur	Heating Value (Btu/gal)	Firing: Normal or Tangential

6. **Distillate Fuel:** **Not Applicable** X

Grade of Distillate fuel used: No.1, No.2, No.4,	% Sulfur	Heating Value (Btu/gal)	Firing: Normal or Tangential (No. 4 only)

7. **Natural gas:** **Not Applicable** ____

Firing:	
Normal	X
Tangential	

8. **Process gas or landfill gas:** **Not Applicable** X

Type of gas	% Sulfur	Heating Value (Btu/ft^3)

9. **Liquified petroleum gas:** **Not Applicable** X

% Butane	% Propane	% Sulfur

10. **Waste oil:** **Not Applicable** X

% of heat provided by waste oil	Heating Value (Btu/gal)	% Ash	% Sulfur	% Chlorine	% Lead

11. **Wood, wood waste, and/or Bark:** **Not Applicable** X

Wood or Wood Waste	Bark only	Wood and Bark	% Moisture	Heating Value (Btu/gal)

12. **Liquid waste:** **Not Applicable** X

% of heat provided by liquid waste	Heating Value (Btu/gal)	% Sulfur	% Chlorine	% Fluorine	Special or Hazardous waste

13. **Tires or tire derived fuel (TDF):** **Not Applicable** X

Whole tires	Tire derived fuel	Heating Value (Btu/lb)	% heat supplied by (tires/ TDF)	% Sulfur	% Chromium	% Chlorine	Type of combustion

14. **Solid waste:** **Not Applicable** X

% heat supplied by combustion of solid waste	Heating value of waste (Btu/lb)	Type of combustor	Special or Hazardous Waste

15. **Emission controls:**

A. Particulate Matter (check all applicable)

None	Baghouse	Wet Scrubber	Electrostatic Precipitator
X			
Other (Specify)			

B. SO2 (check all applicable)

None	X	Scrubber type		Other (specify)	

C. NOx (check all applicable)

None	Low NO_x Burners	Selective Catalytic reduction	Selective non-catalytic reduction
X			
Other (specify)			

16. **Acid Gas (check all applicable)**

None	X	Packed Tower		Scrubber Type		Other (specify)	

17. **Combustion units are boilers, fill out this section:**

Date of installation	
Are any previously installed boilers present (Yes or No)	

If yes, complete:

Identification	Heat Input Capacity	Date Installed	Permit # and/or Registration #

Indicate any acceptable fuel consumption limitations _____Stack Data should be placed on form F.
Provide additional sheets if necessary.

State Form 46978(1-95)

STATE OF INDIANA
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR MANAGEMENT

Form D

Combustion

1.

Type of heating unit	BURNER - WATER HEATER	ID Number	S-1, WASHER STAGE 5

2.

Heat input rate (million Btu/hour)	0.8

3. **Combustion Process:**

Pulverized (Pv) -Dry Bottom		Spreader Stoker	
Pv - Wet Bottom		Traveling Grate	
Pv - Tangential		Fluidized	
Cyclone		Natural Gas	X

Fill out for each fuel and check not applicable if not used.

4. **Fueled by coal:** **Not Applicable** X

Anthracite ____, **Bituminous** ____, **Subbituminous** ____, **Lignite** ____, **Coke** _____

State of Origin	% Ash	% Sulfur	% Moisture (average)	Heating Btu/lb Dry? Moist?

5. **Residual Oil:** **Not Applicable** X

Grade of residual oil used: No.5, No.6	% Sulfur	Heating Value (Btu/gal)	Firing: Normal or Tangential

6. **Distillate Fuel:** **Not Applicable** X

Grade of Distillate fuel used: No.1, No.2, No.4,	% Sulfur	Heating Value (Btu/gal)	Firing: Normal or Tangential (No. 4 only)

7. **Natural gas:** **Not Applicable** _____

Firing:	
Normal	X
Tangential	

8. **Process gas or landfill gas:** **Not Applicable** X

Type of gas	% Sulfur	Heating Value (Btu/ft^3)

9. **Liquified petroleum gas:** Not Applicable X

% Butane	% Propane	% Sulfur

10. **Waste oil:** Not Applicable X

% of heat provided by waste oil	Heating Value (Btu/gal)	% Ash	% Sulfur	% Chlorine	% Lead

11. **Wood, wood waste, and/or Bark:** Not Applicable X

Wood or Wood Waste	Bark only	Wood and Bark	% Moisture	Heating Value (Btu/gal)

12. **Liquid waste:** Not Applicable X

% of heat provided by liquid waste	Heating Value (Btu/gal)	% Sulfur	% Chlorine	% Fluorine	Special or Hazardous waste

13. **Tires or tire derived fuel (TDF):** Not Applicable X

Whole tires	Tire derived fuel	Heating Value (Btu/lb)	% heat supplied by (tires/ TDF)	% Sulfur	% Chromium	% Chlorine	Type of combustion

14. **Solid waste:** Not Applicable X

% heat supplied by combustion of solid waste	Heating value of waste (Btu/lb)	Type of combustor	Special or Hazardous Waste

15. **Emission controls:**

A. Particulate Matter (check all applicable)

None	Baghouse	Wet Scrubber	Electrostatic Precipitator
X			
Other (Specify)			

B. SO2 (check all applicable)

None	X	Scrubber type		Other (specify)	

C. NOx (check all applicable)

None	Low NO_x Burners	Selective Catalytic reduction	Selective non-catalytic reduction
X			
Other (specify)			

16. **Acid Gas (check all applicable)**

None	X	Packed Tower		Scrubber Type		Other (specify)	

17. **Combustion units are boilers, fill out this section:**

Date of installation	
Are any previously installed boilers present (Yes or No)	

If yes, complete:

Identification	Heat Input Capacity	Date Installed	Permit # and/or Registration #

Indicate any acceptable fuel consumption limitations _____Stack
Data should be placed on form F.
Provide additional sheets if necessary.

State Form 46978(1-95)

STATE OF INDIANA
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR MANAGEMENT

Form D

Combustion

1.

Type of heating unit	CURING OVEN	ID Number	S-3

2.

Heat input rate (million Btu/hour)	6.4

3. **Combustion Process:**

Pulverized (Pv) -Dry Bottom		Spreader Stoker	
Pv - Wet Bottom		Traveling Grate	
Pv - Tangential		Fluidized	
Cyclone		Natural Gas	X

Fill out for each fuel and check not applicable if not used.

4. **Fueled by coal:** **Not Applicable** X

Anthracite ____, **Bituminous** ____, **Subbituminous** ____, **Lignite** ____, **Coke** ____

State of Origin	% Ash	% Sulfur	% Moisture (average)	Heating Btu/lb Dry? Moist?

5. **Residual Oil:** **Not Applicable** X

Grade of residual oil used: No.5, No.6	% Sulfur	Heating Value (Btu/gal)	Firing: Normal or Tangential

6. **Distillate Fuel:** **Not Applicable** X

Grade of Distillate fuel used: No.1, No.2, No.4,	% Sulfur	Heating Value (Btu/gal)	Firing: Normal or Tangential (No. 4 only)

7. **Natural gas:** **Not Applicable** ____

Firing:	
Normal	X
Tangential	

8. **Process gas or landfill gas:** **Not Applicable** X

Type of gas	% Sulfur	Heating Value (Btu/ft^3)

9. Liquified petroleum gas: Not Applicable X

% Butane	% Propane	% Sulfur

10. Waste oil: Not Applicable X

% of heat provided by waste oil	Heating Value (Btu/gal)	% Ash	% Sulfur	% Chlorine	% Lead

11. Wood, wood waste, and/or Bark: Not Applicable X

Wood or Wood Waste	Bark only	Wood and Bark	% Moisture	Heating Value (Btu/gal)

12. Liquid waste: Not Applicable X

% of heat provided by liquid waste	Heating Value (Btu/gal)	% Sulfur	% Chlorine	% Fluorine	Special or Hazardous waste

13. Tires or tire derived fuel (TDF): Not Applicable X

Whole tires	Tire derived fuel	Heating Value (Btu/lb)	% heat supplied by (tires/ TDF)	% Sulfur	% Chromium	% Chlorine	Type of combustion

14. Solid waste: Not Applicable X

% heat supplied by combustion of solid waste	Heating value of waste (Btu/lb)	Type of combustor	Special or Hazardous Waste

15. Emission controls:

A. Particulate Matter (check all applicable)

None	Baghouse	Wet Scrubber	Electrostatic Precipitator
X			
Other (Specify)			

B. SO2 (check all applicable)

None	X	Scrubber type		Other (specify)	

C. NOx (check all applicable)

None	Low NO_x Burners	Selective Catalytic reduction	Selective non-catalytic reduction
X			
Other (specify)			

16. **Acid Gas (check all applicable)**

None	X	Packed Tower		Scrubber Type		Other (specify)	

17. **Combustion units are boilers, fill out this section:**

Date of installation	
Are any previously installed boilers present (Yes or No)	

If yes, complete:

Identification	Heat Input Capacity	Date Installed	Permit # and/or Registration #

Indicate any acceptable fuel consumption limitations _____ Stack Data should be placed on form F.
Provide additional sheets if necessary.

State Form 46978(1-95)

STATE OF INDIANA
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR MANAGEMENT

Form E

Process Information

Products produced AUTOMOTIVE EXHAUST PIPING AND MUFFLERS

1. **Raw material rate** (Please use additional sheets if necessary)

Type of material used	Normal rate (lbs/hr)	Maximum rate (lbs/hr)
PAINT	9.3	1200
MUFFLER ASSEMBLIES	100 ASSEMBLIES	137 ASSEMBLIES
NATURAL GAS	10,200 FT^3/HR	10,200 FT^3/HR

2. **Finished product**

Normal _____ lbs/hr Maximum _____ lbs/hr

3. **Process and emission control equipment** - List each facility*. This list of facilities should be consistent with the flow diagram on Form F. (Use an additional sheet if necessary.)

FABRICATION	
ASSEMBLY	
PARTS WASHER	
SPRAY BOOTH	
DRYING OVEN	
PACKING AND SHIPPING	

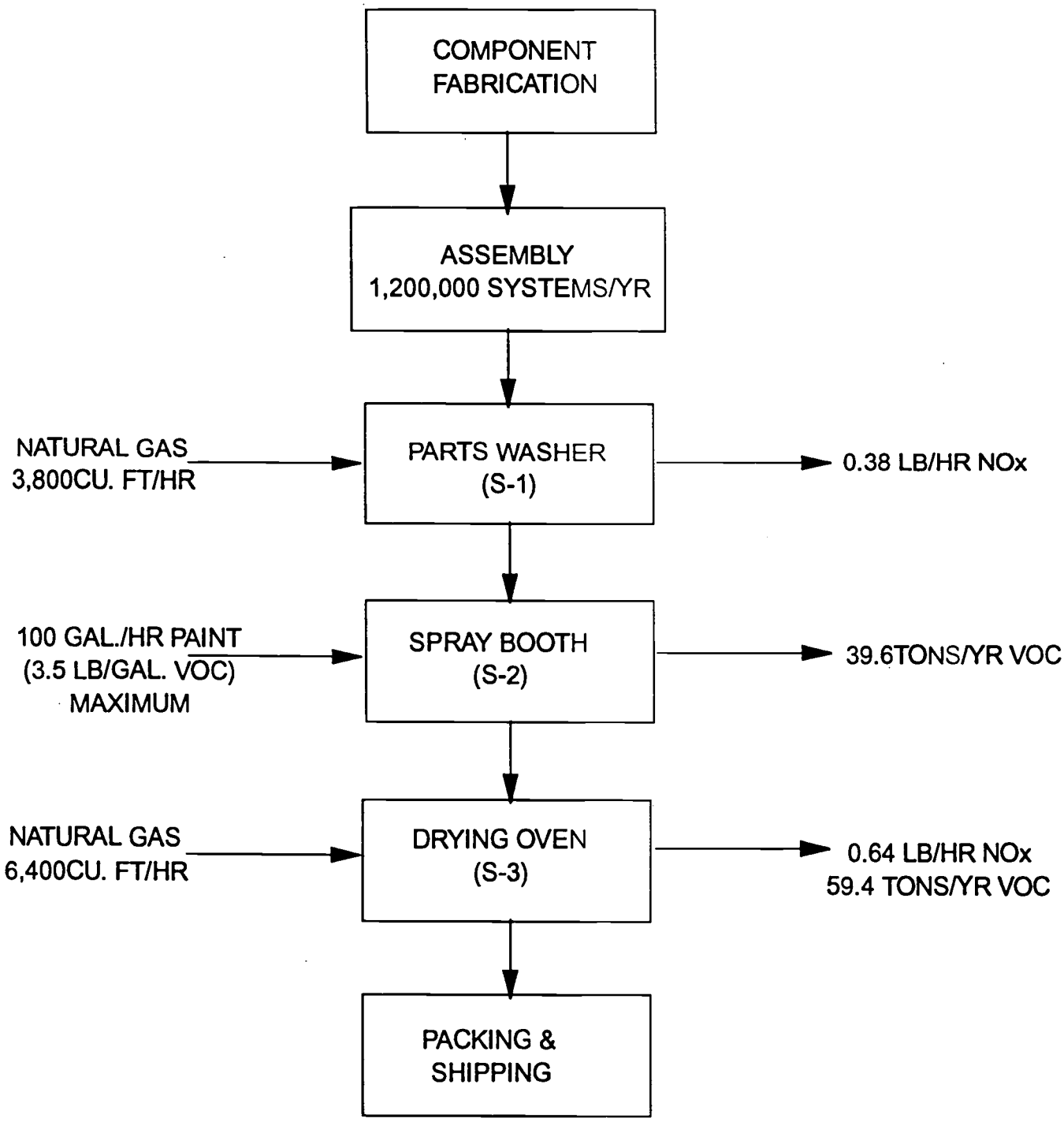
4. **Type of air pollution control** NONE
(Must be consistent with Form Q)

A. Efficiency of emission control equipment N/A

B. For dry collectors tons/year collected N/A

*Facility - Any one (1) structure, piece of equipment, installation or operation which **emits** or has the potential to **emit** any air contaminant - PM, SO_x, VOC, NO_x, CO, lead, and toxic contents.

PROCESS FLOW DIAGRAM
ARVIN NAA, FRANKLIN PLANT



ALL SOURCES HAVE POTENTIAL TO OPERATE 24 HOURS/DAY, 365 DAYS PER YEAR

State Form 46978(1-95)

State of Indiana
Department of Environmental Management
Office of Air Management

Form F

Flow Diagram

This permit application must include a simple flow diagram of the operation. The purpose of the flow diagram is to understand the process and potential emission points. Please use this form as a check list. Any **information missing** in Form F will **halt** or **prolong** the review process. Duplicate the form if needed.

Include all applicable information in the flow diagram:

Check when completed:

1. _X_ State the raw material input in lbs/hr
2. _X_ State the maximum hourly capacity of each step of the operation in lbs/hr
3. _X_ Show all equipment, emitting pollutants, used in the process
4. _X_ Indicate additions and modifications to an existing process
5. _X_ Show location of stacks (include stack identification)
6. ____ Show location and process which the air pollution control (APC) equipment abates
7. _X_ **Indicate the actual *operation schedule for each source* being registered or permitted since, operation hours may differ.**

Stack* Data

Stack ID	Height feet above ground	Diameter (feet inside)	Gas discharge temp. (°F)	Gas flow rate (acfm)
S-1 WASHER	29	2.5	450	7030
S-2 BOOTH	29	2	AMBIENT	30000
S-3 OVEN	29	1	450	7500

An example of a flow diagram has been provided in the instructions. This is only an example. You may include additional information that you feel is necessary.

* "Stack" means any point in a source designed to emit solids, gases, or liquids into the air, including a pipe, duct or flares.

State Form 46978(1-95)

STATE OF INDIANA
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR MANAGEMENT

Form Q-1

Particulate Control Equipment

1. **Additional information needed to complete calculations:**

Emission point ID (one page per control device)	Gas or air flow rate (acfm)	Grain loading/actual standard cubic foot of outlet air	Average gas temperature °F	Actual collection efficiency %
S-2 SPRAY BOOTH EXHAUST	30,000	0.01	AMBIENT	95

2. **Cyclone:**

Average particulate size at the inlet (microns)			
Number of tubes		Tube diameter (inches)	

3. **Baghouse:**

Fabric material	Total filter area (ft^2)	Air to cloth ratio air flow ($dscfm/ft^2$)	Pressure drop across baghouse inches of water	Method of bag cleaning (ie. shaking, jetpulse, etc.)

4. **Electrostatic precipitator (ESP):**

Type of ESP: wet, dry, hot side, cold side	Face velocity across the plates (ft/sec)	Total face surface area (ft^2)	Gas conditioning agent	Delay time between starting of system and ESP unit operation

Why the delay?	

5. **Wet collectors:**

A. Scrubber type _____

Pressure drop across scrubber inches of water	Flow rate (gpm)	Scrubbing liquor	Liquid to air ratio ($gpm/10^3acfm$)	Is there a demister following the scrubber?

B. **Settling pond:**

Volume (ft^3)	Depth (ft)	Width (ft)	Length (ft)	Diameter (if circular) (ft)

State Form 46978(1-95)

STATE OF INDIANA
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR MANAGEMENT

Form W-1

SURFACE COATING AND ACCESSORY SOLVENTS **(as APPLIED)**

How Many guns can be supported by the compressor?	2

1 Name of Coatings, Solvents, Etc.	2 Process or Booth I.D.	3 Material density (lbs/gal)	4 Weight % Volatiles (Water and Organics)	5 Weight % Water	6 Volume % Water	7 Volume % Non-volatiles (Solids)	8 Number of guns used when coating	9 Nozzle size of the guns	10 Describe the product (doors, screens, pipes, etc.) and the material (wood, plastic, metal, etc.) you are coating
WABASH 980082-2	CADILLAC LINE	11.79	29.3	0	0	20.8	2		AUTOMOBILE EXHAUST SYSTEMS
WABASH 978061-6	CADILLAC LINE	12.3	28.7	0	0	26.2	2		AUTOMOBILE EXHAUST SYSTEMS
TOLUENE	CLEANING SOLVENT	7.24	100	0	0	0	0		CLEANING PAINT SUPPLY LINES

A. If more than one type of unit is coated in the same paint booth with the same coating, this amount should be based on the production unit requiring the most gallons per hour of material. If different coatings are used, they must be listed separately. Gallons per hour = Column 8 X Column 9.

B. Attach a *Material Safety Data Sheet* (MSDS) and an *EPA VOC Data Sheet* for each material listed. DO NOT SEND THE ENTIRE MSDS. The required sections are: Product Identification, Hazardous Ingredients, and Physical characteristics Information.

C. Density, Weight % Volatiles, and Weight % Water come from MSDS.

State Form 46978(1-95)

STATE OF INDIANA
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR MANAGEMENT

Form W-2

Surface Coating and Accessory Solvents

Process or Booth I.D. (1)	CADILLAC LINE			
Application method (2)	SPRAYING			
If sprayed specify type (3)	ELECTROSTATIC AIR ATOMIZED			
Type of overspray controls (4)	DRY FILTERS			
Control efficiency	95%			
Type of hydrocarbon controls (5)	COMPLIANT COATINGS			
Control efficiency	0%			
Stack height (feet above ground)	29			
Stack diameter (inches)	30			
Exhaust flow rate (acfm)	30,000			
Exhaust discharge temperature °F	AMBIENT			

1. Use identifiers from Form F.

2. Method of application refers to dipping, spraying, rollcoating, brushing, flowcoating, or other.

3. Types of spray coating include: air atomization, airless, electrostatic disc, electrostatic airless, electrostatic air atomized, low pressure air atomization, low pressure-high volume, or other.

4. Overspray controls include: dry and wet filters, baffles, waterwash, or other.

5. Hydrocarbon controls include: catalytic or direct flame incineration, solvent recovery, carbon adsorption, or other.

State Form 46978(1-95)

STATE OF INDIANA
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR MANAGEMENT

Air Toxic Pollutants

Company Name: ARVIN NORTH AMERICAN AUTOMOTIVE

Location: 1001 N. HURRICANE ST., FRANKLIN, IN 46131

Place an "X" beside each compound listed on forms Y1 through Y5 that will be emitted into the air from the equipment covered in this application, and determine the maximum emission rate for each compound. Attach Sections I, II, and III (only) of Material Safety Data Sheets (MSDS) for each toxic containing material. List all emission points (as identified on the site plot plan) for each compound. **Include stack parameters for each listed air toxic emission point on the appropriate form.**

X	CAS NUMBER	CHEMICAL NAME	EMISSION POINTS	MAXIMUM EMISSION RATE (POUNDS/HR) BEFORE CONTROLS
___	00075070	Acetaldehyde		
___	00060355	Acetamide		
___	00075058	Acetonitrile		
___	00098862	Acetophenone		
___	00053963	2-Acetylaminofluorene		
___	00107028	Acrolein		
___	00079061	Acrylamide		
___	00079107	Acrylic Acid		
___	00107131	Acrylonitrile		
___	00107051	Allyl chloride		
___	00092671	4-Aminodiphenyl		
___	00062533	Aniline		
___	00090040	o-Anisidine		
___	01332214	Asbestos		
___	00071432	Benzene (including from gasoline)		
___	00092875	Benzidine		
___	00098077	Benzotrichloride		
___	00100447	Benzyl chloride		
___	00092524	Biphenyl		
___	00117817	Bis (2-ethylhexyl) phthalate (DEHP)		
___	00542881	Bis (chloromethyl) ether		
___	00075252	Bromoform		
___	00106990	1,3-Butadiene		
___	00156627	Calcium cyanamide		
___	00105602	Caprolactam		
___	00133062	Captan		
___	00063252	Carbaryl		
___	00075150	Carbon disulfide		
___	00056235	Carbon tetrachloride		
___	00463581	Carbonyl sulfide		
___	00120809	Catechol (1,2-dihydroxylbenzene)		
___	00133904	Chloramben		
___	00057749	Chlordane		
___	07782505	Chlorine		
___	00079118	Chloroacetic acid		
___	00532274	2-Chloroacetophenone		

State Form 46978(1-95) Air Toxic Pollutants (continued)

___	00108907	Chlorobenzene		
___	00510156	Chlorobenzilate		
___	00067663	Chloroform		
___	00107302	Chloromethyl methyl ether		
___	00126998	Chloroprene		
___	01319773	Cresols/Cresylic Acid (isomers and mixtures)		
___	00095487	o-Cresol		
___	00108394	m-Cresol		
___	00106445	p-Cresol		
___	00098828	Cumene		
___	00094757	2,4-D, (2,4-Dichlorophenoxyacetic acid, including salts and esters)		
___	00072559	DDE (1,1-Dichloro-2,2-bis(p-chlorophenyl)ethylene		
___	00334883	Diazomethane		
___	00132649	Dibenzofuran		
___	00096128	1,2-Dibromo-3-chloropropane		
___	00084742	Dibutylphthalate		
___	00106467	1,4-Dichlorobenzene		
___	00091941	3,3'-Dichlorobenzidene		
___	00111444	Dichloroethyl ether [Bis (2-chloroethyl) ether]		
___	00542756	1,3-Dichloropropene		
___	00062737	Dichlorvos (DDVP)		
___	00111422	Diethanolamine		
___	00121697	N,N-Dimethylaniline		
___	00064675	Diethyl sulfate		
___	00119904	3,3'-Dimethoxybenzidine		
___	00060117	Dimethyl aminoazobenzene		
___	00119937	3,3'-Dimethylbenzidine		
___	00079447	Dimethylcarbamoyl chloride		
___	00068122	Dimethylformamide		
___	00057147	1,1-Dimethylhydrazine		
___	00131113	Dimethyl phthalate		
___	00077781	Dimethyl Sulfate		
___		4,6-Dinitro-o-cresol, and salts		
___	00051285	2,4-Dinitrophenol		
___	00121142	2,4-Dinitrotoluene		
___	00123911	1,4-Dioxane (1,4-Diethyleneoxide)		
___	00122667	1,2-Diphenylhydrazine		
___	00106898	Epichlorohydrin (1-Chloro-2,3-epoxypropane)		
___	00106887	1,2-Epoxybutane		
___	00140885	Ethyl acrylate		
___	00100414	Ethylbenzene		
___	00051796	Ethyl carbamate (Urethane)		
___	00075003	Ethyl chloride (Chloroethane)		
___	00106934	Ethylene dibromide (Dibromoethane)		
___	00107062	Ethylene dichloride (1,2-Dichloroethane)		
___	00107211	Ethylene Glycol		
___	00151564	Ethyleneimine (Aziridine)		
___	00075218	Ethylene Oxide		
___	00096457	Ethylene thiourea		
___	00075343	Ethylidene dichloride(1,1-Dichloroethane)		
___	00050000	Formaldehyde		

State Form 46978(1-95)

Air Toxic Pollutants (continued)

___	00076448	Heptachlor	_____	_____
___	00118741	Hexachlorobenzene	_____	_____
___	00087683	Hexachorobutadiene	_____	_____
___	00058899	1,2,3,4,5,6-Hexachlorocyclohexane (all stereo isomers, including Lindane)	_____	_____
___	00077474	Hexachlorocyclopentadiene	_____	_____
___	00067721	Hexachloroethane	_____	_____
___	00822060	Hexamethylene-1,6-diisocyanate	_____	_____
___	00680319	Hexamethylphosphoramide	_____	_____
___	00110543	Hexane	_____	_____
___	00302012	Hydrazine	_____	_____
___	07647010	Hydrochloric acid [Hydrogen chloride (gas only)]	_____	_____
___	07664393	Hydrogen fluoride (Hydrofluoric acid)	_____	_____
___	00123319	Hydroquinone	_____	_____
___	00078591	Isophorone	_____	_____
___	00108316	Maleic anhydride	_____	_____
___	00067561	Methanol	_____	_____
___	00072435	Methoxychlor	_____	_____
___	00074839	Methyl Bromide (Bromomethane)	_____	_____
___	00074873	Methyl chloride (Chloromethane)	_____	_____
___	00071556	Methyl Chloroform (1,1,1-Trichloroethane)	_____	_____
___	00078933	Methyl ethyl ketone (2-Butanone)	_____	_____
___	00060344	Methylhydrazine	_____	_____
___	00074884	Methyliodide (Iodomethane)	_____	_____
___	00108101	Methyl isobutyl ketone (Hexone)	_____	_____
___	00624839	Methyl isocyanate	_____	_____
___	00080626	Methyl methacrylate	_____	_____
___	01634044	Methyl tert-butyl ether	_____	_____
___	00101144	4,4-Methylenebis(2-chloroaniline)	_____	_____
___	00075092	Methylene chloride (Dichloromethane)	_____	_____
___	00101688	4-4' Methylenediphenyl diisocyanate (MDI)	_____	_____
___	00101779	4,4-Methylenedianiline	_____	_____
___	00091203	Naphthalene	_____	_____
___	00098953	Nitrobenzene	_____	_____
___	00092933	4-Nitrobiphenyl	_____	_____
___	00100027	4-Nitrophenol	_____	_____
___	00079469	2-Nitropropane	_____	_____
___	00684935	N-Nitroso-N-methylurea	_____	_____
___	00062759	N-Nitrosodimethylamine	_____	_____
___	00059892	N-Nitrosomorpholine	_____	_____
___	00056382	Parathion	_____	_____
___	00082688	Pentachloronitrobenzene (Quintobenzene)	_____	_____
___	00087865	Pentachlorophenol	_____	_____
___	00108952	Phenol	_____	_____
___	00106503	p-Phenylenediamine	_____	_____
___	00075445	Phosgene	_____	_____
___	07803512	Phosphine	_____	_____
___	07723140	Phosphorus	_____	_____

State Form 46978(1-95) Air Toxic Pollutants (continued)

___	00085449	Phthalic anhydride		
___	01336363	Polychlorinated biphenyls (Aroclors)		
___	01120714	1,3-Propane sultone		
___	00057578	beta-Propiolactone		
___	00123386	Propionaldehyde		
___	00114261	Propoxur (Baygon)		
___	00078875	Propylene dichloride (1,2-Dichloropropane)		
___	00075569	Propylene Oxide		
___	00075558	1,2-Propylenimine (2-Methyl aziridine)		
___	00091225	Quinoline		
___	00106514	Quinone		
___	00100425	Styrene		
___	00096093	Styrene Oxide		
___	01746016	2,3,7,8-Tetrachlorodibenzo-p-dioxin		
___	00079345	1,1,2,2-Tetrachloroethane		
___	00127184	Tetrachloroethylene (Perchloroethylene)		
___	07550450	Titanium tetrachloride		
_X_	00108883	Toluene	S-2, S-3	1
___	00095807	2,4-Toluenediamine		
___	00584849	2,4-Toluene diisocyanate		
___	00095534	o-Toluidine		
___	08001352	Toxaphene (chlorinated camphene)		
___	00120821	1,2,4-Trichlorobenzene		
___	00079005	1,1,2-Trichloroethane		
___	00079016	Trichloroethylene		
___	00095954	2,4,5-Trichlorophenol		
___	00088062	2,4,6-Trichlorophenol		
___	00121448	Triethylamine		
___	01582098	Trifluralin		
___	00540841	2,2,4-Trimethylpentane		
___	00108054	Vinyl acetate		
___	00593602	Vinyl bromide		
___	00075014	Vinyl chloride		
___	00075354	Vinylidene chloride (1,1-Dichloroethylene)		
_X_	01330207	Xylenes (isomers and mixtures)	S-2, S-3	97
___	00095476	o-Xylene		
___	00108383	m-Xylene		
___	00106423	p-Xylene		
___		Antimony Compounds		
___		Arsenic Compounds (inorganic including arsine)		
___		Beryllium Compounds		
___		Cadmium Compounds		
_X_		Chromium Compounds	S-2	2
___		Cobalt Compounds		
___		Coke Oven Emissions		
___		Cyanide Compounds [1]		
_X_		Glycol Ethers [2]	S-2, S-3	1
___		Lead Compounds		
___		Manganese Compounds		
___		Mercury Compounds		
___		Fine Mineral Fibers [3]		
___		Nickel Compounds		
___		Polycyclic Organic Matter [4]		

State Form 46978(1-95) Air Toxic Pollutants (continued)

___	Radionuclides (Including Radon) [5]	_____	_____
___	Selenium Compounds	_____	_____
___	**None of the compounds listed under Air Toxic Pollutants will be emitted from the equipment listed in this application.**		

NOTE: FOR ALL LISTINGS ABOVE WHICH CONTAIN THE WORD "COMPOUNDS" AND FOR GLYCOL ETHERS, THE FOLLOWING APPLIES: UNLESS OTHERWISE SPECIFIED, THESE LISTINGS ARE DEFINED AS INCLUDING ANY UNIQUE CHEMICAL SUBSTANCE THAT CONTAINS THE NAMED CHEMICAL (i.e., antimony, arsenic, etc.) AS PART OF THAT CHEMICAL'S INFRASTRUCTURE.

[1] X'CN where X=H' or any other group where a formal dissociation may occur. For example KCN or $Ca(CN)_2$

[2] includes mono- and di- ethers of ethylene glycol, diethylene glycol, and triethylene glycol $R-(OCH_2CH_2)_n-OR'$ where: n=1, 2, or 3; R= alkyl or aryl groups; and R' = R, H, or groups which, when removed, yield glycol ethers with the structure $R-(OCH_2CH_2)_n-OH$. Polymers are excluded from the glycol category.

[3] includes mineral fiber emissions from facilities manufacturing or processing glass, rock, or slag fibers (or other mineral derived fibers) of average diameter 1 micrometer or less.

[4] limited to, or refers to, products from incomplete combustion of organic compounds (or material) and pyrolysis processes having more than one (1) benzene ring, and which have a boiling point greater than or equal to 100 degrees Celsius.

[5] a type of atom which spontaneously undergoes radioactive decay.

FORM Y28

State Form 46978(1-95) **AFFIDAVIT of NONAPPLICABILITY** Form EE-3

ROBERT ELLIOTT, being first duly sworn upon oath, deposes and says:

1. I live in BARTHOLOMEW County, Indiana, and being of sound mind and over twenty-one (21) years of age, I am competent to give this affidavit.

2. I hold the position of Facility Mgr. for ARVIN AUTOMOTIVE (permit applicant's or facility's name).

3. By virtue of my position with ARVIN AUTOMOTIVE (permit applicant's name), I am authorized to make the representation contained in this affidavit on behalf of the facility.

4. I understand that the notice requirements of Ind. Code § 13-7-10-1.1do not apply to ARVIN AUTOMOTIVE (permit applicant's or facility's name) for purposes of the accompanying permit application.

Further Affiant Saith Not.

I affirm under the penalty for perjury that the representations contained in this affidavit are true, to the best of my information and belief.

9-22-95
Date

Robert Elliott
signature of affiant

ROBERT ELLIOTT
printed name

STATE OF INDIANA)
)
COUNTY OF _____)

Before me a notary Public in and for said County and State, personally appeared ROBERT ELLIOTT, and being first duly sworn by me upon oath, says that the fact stated in the foregoing instrument are true.
Signed and sealed this 22 day of SEPT, 19 95.

Mark Adolay

Printed: MARK J. ADOLAY

My Commission Expires: MAY 15, 1995

Residence of MARION County

FORM Y29

State Form 46978(1-95)

State of Indiana
Department of Environmental Management **Form FF**
Office of Air Management

Facility* Identification

It is important to submit the correct facility identification, currently being permitted. By providing this information you will help to eliminate future confusion concerning which facility has been permitted. Not submitting this information will **halt** or **prolong** the review process.

Facility & maximum capacity	Company ID number	Serial number	Make	Model number
CADILLAC PAINT BOOTH (S-2) 137 ASSEMBLIES/HOUR	N/A	N/A	N/A	N/A
PARTS WASHER (S-1)	N/A	N/A	N/A	N/A
DRYING OVEN (S-3)	N/A	N/A	N/A	N/A

*Facility - Any one (1) structure, piece of equipment, installation or operation which **emits** or has the potential to **emit** any air contaminant - PM, SO_x, VOC, NO_x, CO, lead, and toxic contents.

APPENDIX B

MATERIAL SAFETY DATA SHEETS

Certificate of Analysis

Rec 10/10/94
JM

SIMAX
THE FINISH THAT LASTS

WABASH PRODUCTS

CADILLAC

CUSTOMER:	ARVIN AUTOMOTIVE, FRANKLIN
MATERIAL DESCRIPTION:	3.5 V.O.C. HIGH HEAT BLACK FOR 409 SS
CUSTOMER CODE NO.:	#978061-6
PURCHASE ORDER NO.:	214083
WABASH CODE NO.:	KB-0318-HHHS
QUANTITY:	55 GALLONS
BATCH NUMBER:	4H1054
WEIGHT PER GALLON:	12.3 ± 0.10 LBS
VISCOSITY:	24 ± 2 SEC #2 ZAHN CUP
% N.V. BY WEIGHT:	72 ± 1%
V.O.C. AS DETERMINED BY ASTM D2369-81:	3.5 LBS/GAL
#2 WEDGE CRYPTOMETER:	1357 SQ. FT./GALLON
APPLICATION:	SPRAY
REDUCTION:	NONE
SUBSTRATE:	409 STAINLESS (CLEAN)
CURING CONDITIONS:	20 MIN @ 350°F
WET FILM THICKNESS:	N/A
DRY FILM THICKNESS:	1.0 ± 0.2 MILS
GLOSS @ 60°:	5 ± 2%
PENCIL HARDNESS:	2H MINIMUM
SOLVENT RESISTANCE:	12 RUBS XYLENE
X-HATCH ADHESION TO SUBSTRATE:	(5) ASTM D3359
RECOAT AND/OR TOPCOAT ADHESION:	(5) ASTM D3359
IMPACT:	60 IN/LBS REVERSE
MANDREL BEND:	N/A
WATER SOAK:	96 HRS
SALT SPRAY:	168 HRS
HUMIDITY:	N/A

Certified by:

Larry Reardon

10/3/94

MATERIAL SAFETY DATA SHEET FOR KB- 318HHHS

COMPLIES WITH OSHA STANDARD TITLE 29CFR1910.1200

HEALTH 2*
FLAMMABILITY 3
REACTIVITY
PERSONAL
PROTECTION

FROM: WABASH PRODUCTS CO., TERRE HAUTE, IN
EMERGENCY TELEPHONE 800-424-9300

TO: ARVIN AUTOMOTIVE, FRANKLIN #978061-6
FOR: WABASH PART NUMBER KB- 318HHHS
DESCRIPTION 3.50 VOC HIGH HEAT BLACK
TO:

MSDS DATE (YYMMDD) 941003
SEQUENCE # 941003999

**** 1. HAZARDOUS INGREDIENTS ****

COMMON NAME HAZARD TYPE	CAS NUMBER	EXPOSURE LIMITS	PPM	mg/M	LEL %	VAPOR PRES mm Hg @ 20°C
XYLENE FLAMMABLE	1330-20-7	PEL TLV	100 100		1.00	5.10
(3)HIGH F. NAPHTHA FLAMMABLE	64742-95-6	TLV	25		.69	NOT SUPPLIED
SOLVESSO 150 FLAMMABLE	64742-94-5	TLV	100		1.00	NOT SUPPLIED
GLYCOL ETHER P.M. (1) FLAMMABLE	107-98-2	TLV	100		3.00	10.90
BUTYL CELLOSOLVE FLAMMABLE	111-76-2	PEL TLV	50 25		1.09	.90
OXO-HEPTYL ACETATE FLAMMABLE	90438-79-2	PEL TLV	50 50		NOT GIVEN	.80
GYLCOL ETHER DB FLAMMABLE	112-34-5	PEL	25		.84	.10
BUTYL CARBITOL IRRITANT	112-34-5	NOT SUPPLIED			NOT GIVEN	5.00

**** 2. PHYSICAL DATA ****

APPEARANCE IS COLOR BLACK PAINT DENSITY IS 12.5 LBS/GAL
VAPOR DENSITY (X) HEAVIER ( ) LIGHTER THEN AIR
EVAPORATION RATE IS (X) SLOWER ( ) FASTER THAN ETHER
BOILING RANGE FROM 200 TO 500 (DEG F)

**** 3. FIRE AND EXPLOSIVE HAZARD DATA ****

FLASH POINT (°F) CC 90 OSHA CLASS - FLAMMABLE LIQUID - CLASS 1C
UN NUMBER 1993 DOT CLASS - FLAMMABLE LIQUID
LOWER EXPLOSIVE LIMIT (% BY VOLUME IN AIR) - 0.70
EXTINGUISHING MEDIA: Carbon dioxide or Dry Chemicals for small fires.
Foam for large fires.

CAUTION - Closed containers may build explosive pressure from heat.
Vapors are heavier then air and may travel along the ground or may be moved by ventilation and ignited by pilot lights,other flames,sparks heaters,smoking,electric motors,static discharge, or ignition sources at locations distant from material handling point.
NEVER USE WELDING OR CUTTING TOURCH ON OR NEAR DRUM (EVEN EMPTY) because product (or residue) can ignite explosively

SPECIAL FIRE FIGHTING PROCEDURE: cool closed containers with water spray.

HAZARDOUS DECOMPOSITION PRODUCTS: May form toxic materials:, Carbon Dioxide, Carbon Monoxide, Various Hydrocarbons, Etc.

**** 4. REACTIVITY DATA ****

STABILITY (X) STABLE ( ) UNSTABLE
HAZARDOUS POLYMERIZATION (X) WILL NOT OCCURE ( ) MAY OCCURE
HAZARDOUS DECOMPOSITION - FUMES MAY CONTAIN THE HAZARDOUS MATERIALS LISTED ABOVE.

CONDITIONS AND MATERIALS TO BE AVOIDED

Excess heat, sparks, and open flame

Avoid contact with strong oxidizing agents

Decomposition may produce carbon monoxide and/or carbon dioxide.

Avoid extended contact with air or oxygen.

Incomplete combustion will generate highly poisonous carbon monoxide and perhaps other toxic vapors.

Avoid contamination with alkalies.

**** 5. HEALTH HAZARD DATA ****

PRIMARY ROUTE OF ENTRY: (X) DERMAL (X) INHALATION ( ) INGESTION

Copper Chromite Black Spinel:

	OSHA PEL	ACHIH TLV	%
Copper dusts and mists(as CU)	1.0mg/m3	1.0mg/m3	30
Chromium III cpds (as Cr)	1.0mg/m3	0.5mg/m3	43

This pigment is the result of the high temperature calcination of the component sbbstances. due to its unique crystalline structure the properties of this finished pigment do not necessarily reflect the properties of the component metals or oxides.
Some compounds of the metals contained in this pigment copper and chromium III,have demonstrated various toxic properties. HOWEVER,there is NO EVIDENCE that this pigment has these toxic properties.

Effects of Overexposure: May cause mechanical irritation to eyes and respiratory tract.

Overexposure has been found to cause anemia, eye damage, kidney damage, liver abnormalities, and cardiac abnormality.

Aspiration of material into the lungs can cause chemical pneumonitis, which can be fatal.

EFFECTS OF OVEREXPOSURE: Eyes: Can cause severe irritation, redness, tearing, blurred vision. Skin: Prolonged or repeated contact can cause moderate irritation, defatting, dermatitis. Can be absorbed in toxic amounts, especially from prolonged or repeated exposure. Breathing: Excessive inhalation of vapors can cause nasal and respiratory irritation, dizziness, weakness, fatigue, nausea, headache, possible unconsciousness, and even asphyxiation. Swallowing: Can cause gastrointestinal irritation, nausea, vomiting, diarrhea.

Human skin patch tests showed a significant degree of irritation and also indicated pronounced photosensitization.

Severe eye irritation, drying of skin. Excessive inhalation causes headache, dizziness, and nausea.

NOTICE: Various studies have shown a possible association with exposure to this product and the following: Respiratory tract irritation, Central Nervous System depression in high concentration. Nausea and vomiting.

Product has low order of acute oral toxicity, but minute amounts aspirated into the lungs during ingestion may cause severe pulmonary injury or death.

Effects of overexposure to vapors might damage central nervous system and cause respiratory irritation, muscular weakness, confusion, impaired coordination, headache,nausea, liver, and kidney damage.

ROUTES OF EXPOSURE: Inhalation, Eyes, [illegible]

intoxication. Eye Contact: May cause minor eye irritation.
Skin Absorption: Extensive/prolonged or repeated exposure to this material can result in significant absorption.
Skin Irritation: May produce skin irritation.
Ingestion: This material may be a slight health hazard if ingested in large quantities.

POLYSOLV EB,ALSO KNOWN AS BUTYL CELLOSOLVE:EXCESSIVE EXPOS MAY CAUSE BLOOD,LUNG,LIVER AND KIDNEY DEFECTS. OBSERVATIONS IN ANIMALS INCLUDE TESTICULAR ATROPHY ONLY AFTER REPEATED ORAL ADMINISTRATION. TESTICULAR ATROPHY HAS NOT BEEN OBSERVED WITH OTHER ROUTES OF EXPOSURE. BIRTH DEFECTS ARE UNLIKELY. EXPOSURES HAVING NO EFFECT ON MOTHER SHOULD HAVE NO EFFECT ON FETUS.DID NOT CAUSE BIRTH DEFECTS IN ANIMALS.OTHER EFFECTS WERE SEEN IN THE FETUS ONLY AT DOSES WHICH CAUSED TOXIC EFFECTS TO THE MOTHER RESULTS OF MUTAGENICITY TESTS IN ANIMALS HAVE BEEN NEGATIVE. RESULTS OF IN VITRO MUTAGENICITY TESTS HAVE BEEN INCONCLUSIVE.

EYE: May cause moderate irritation eith corneal injury. SKIN CONTACT: Prolonged or repeated exposure may cause skin irritation. SKIN ABSORPTION: A single prolonged exposure is not likely to result in the material being absorbed through skin in harmful amounts. The LD50 for skin in rabbits is approx. 4 g/Kg. INGESTION: Single dose oral toxicity is low. The oral LD50 for rats is 5.66 g/Kg. Amounts ingested to induatrial handling are not likely to cause injury; however ingestion of larger amounts may cause injury. INHALATION: Single exposure is not likely to be hazardous.
SYSTEMIC & OTHER EFFECTS: Excessive exposure may cause liver, kidney and blood effects. Birth defects are unlikely. Exposures having no adverse effects on the mother should have no effect on the fetus. In animal studies, no effects were seen on reproduction or fertility other than a reduction in mean body weight of pups from female rats receiving 1000 mg/Kg day orally. Results of mutagenicity tests in animals have been negative. Has been shown to be negative in some in vitro ("test tube") mutagenicity tests and positive in others.

**** 7. SECTION 313 SUPPLIER NOTIFICATION ****

This product contains the following toxic chemicals subject to the reporting requirements of section 313 of the Emergency Planning and Community Right-To-Know Act of 1986 and of 40 CFR 372:

CAS #	CHEMICAL NAME	% BY WEIGHT
1330-20-7	XYLENE	12.3
64742-95-6	(3)HIGH F. NAPHTHA	1.4
64742-94-5	SOLVESSO 150	1.4
107-98-2	GLYCOL ETHER P.M. (1)	1.5
68186-91-4	COPPER CHROMITE BLK SPIN	14.8
7727-43-7	BARIUM SULFATE	11.4
111-76-2	BUTYL CELLOSOLVE	1.9
90438-79-2	OXO-HEPTYL ACETATE	6.4
112-34-5	GYLCOL ETHER DB	1.9
112-34-5	BUTYL CARBITOL	1.9

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This informatipn must be included in all MSDSs that are copied and distributed for this material.

**** 8. FIRST AID AND EMERGENCY PROCEDURES ****

INHALATION: Remove to fresh air immeddiately. If breathing has stopped, give artificial respiration. Keep warm and quiet. Get medical attention immeadiately.
EYE Flush with large omounts of water, lifting upper and lower lids occasionally. Continue for at least 15 minutes. Get medical attention.
SKIN: Throughly wash exposed area with soap and water. Remove contaminate clothing. Launder contaminated clothing before re-use.
SWALLOWED: Do NOT induce vomiting, Keep person warm, quiet, and get medica attention. Aspiration of material into the lungs due to vomiting can cause chemical pneumonitis which can be fatal.

**** 9. SPECIAL PROTECTION INFORMATION ****

RESPIRATORY PROTECTION: Use self contained breathing apparatus where concentrations may be above TLV limits. Below TLV limits, use a NIOSH approved vapor respirator.
VENTILATION: Local exhaust must be sufficient to keep airborne vapor concen tration below the TLV limit.
PROTECTIVE GLOVES: Chemical resistant gloves.
EYE PROTECTION: Safety glasses with side shields.
OTHER PROTECTIVE EQUIPMENT: Eye bath and safety shower. To prevent repeated or prolonged skin contact, wear impervious clothing and boots.

**** 10. SPILL OR LEAK PROCEDURES ****

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED
Keep spectators away. Eliminate all ignition sources (flames, hot surfaces, and sources of electrical, static or frictional sparks). Dike and contain spill with inert material such as sand or earth. Transfer liquids to covere metal containers for recovery or disposal, or remove with inert absorbent. Use only non-sparking tools. place absorbent diking materials in covered metal containers for disposal. Prevent contamination of sewers, streams, an groundwater with spilled material or used absorbent.
WASTE DISPOSAL: Dispose of in accordance with federal, state and local laws Incinerate only in EPA permitted facility. Do NOT incinerate closed containers.

**** NOTE TO CUSTOMER ****

The law requires that you distribute this data to those people in your company who are involved in the use of this product.

The above information has been derived from information provided by our raw material suppliers and to our best knowledge and belief is factual.
No warranty is expressed or implied regarding the accuracy of this data or the results to be obtained from its use.

REMEMBER: it is the USERS obligation to determine the conditions of SAFE use of this product.

Certificate of Analysis

SIMAX
THE FINISH THAT LASTS

WABASH PRODUCTS

CUSTOMER:	ARVIN AUTOMOTIVE, FRANKLIN
MATERIAL DESCRIPTION:	3.5 V.O.C. BLACK HI HEAT BAKING ENAMEL
CUSTOMER CODE NO.:	#980082-2
PURCHASE ORDER NO.:	211062
WABASH CODE NO.:	KB-0809-HSHH
QUANTITY:	15 GALLONS
BATCH NUMBER:	4A0043
WEIGHT PER GALLON:	11.79 LBS/GAL
VISCOSITY:	31 SEC #2 ZAHN CUP
% N.V. BY WEIGHT:	70.43
V.O.C. AS DETERMINED BY ASTM D2369-81:	3.48 lbs/gal
#2 WEDGE CRYPTOMETER:	N/A
APPLICATION:	SPRAY
REDUCTION:	AS IS
SUBSTRATE:	409 STAINLESS
CURING CONDITIONS:	20 MIN @ 350°F
WET FILM THICKNESS:	N/A
DRY FILM THICKNESS:	1.40 MILS
GLOSS @ 60°:	65%
PENCIL HARDNESS:	N/A
SOLVENT RESISTANCE:	N/A
X-HATCH ADHESION TO SUBSTRATE:	100%
RECOAT AND/OR TOPCOAT ADHESION:	N/A
IMPACT:	N/A
MANDREL BEND:	N/A
WATER SOAK:	N/A
SALT SPRAY:	N/A
HUMIDITY:	N/A

PAINT BLACK PER GM9985384 WITH EXCEPTIONS.

Certified by:

MATERIAL SAFETY DATA SHEET FOR KR- 809HSHH

IMPLIES WITH OSHA STANDARD TITLE 29CFR1910.1200

HEALTH 2*
FLAMMABILITY 2
REACTIVITY
PERSONAL
PROTECTION

FROM: WABASH PRODUCTS CO., TERRE HAUTE, IN
EMERGENCY TELEPHONE 800-424-9300

TO: ARVIN AUTOMOTIVE,FRANKLIN
FOR: WABASH PART NUMBER KR- 809HSHH
DESCRIPTION 3.5 VOC BLACK HI HEAT
TO:

MSDS DATE (YYMMDD) 940110
SEQUENCE # 940110999

**** 1. HAZARDOUS INGREDIENTS ****

COMMON NAME / HAZARD TYPE	CAS NUMBER	EXPOSURE LIMITS	PPM	mg/M	LEL %	VAPOR PRES mm Hg @ 20'C
XYLENE FLAMMABLE	1330-20-7	PEL TLV	100 100		1.00	5.10
(3)POLYSOLVE DB FLAMMABLE	112-34-5	PEL	25		.84	.10
(3)HIGH F. NAPHTHA FLAMMABLE	64742-95-6	TLV	25		.69	NOT SUPPLIED
BUTYL CARBITOL IRRITANT	112-34-5	NOT SUPPLIED			NOT GIVEN	5.00

**** 2. PHYSICAL DATA ****

APPEARANCE IS COLOR BLACK L/ PAINT DENSITY IS 11.7 LBS/GAL
VAPOR DENSITY (X) HEAVIER ( ) LIGHTER THEN AIR
EVAPORATION RATE IS (X) SLOWER ( ) FASTER THAN ETHER
BOILING RANGE FROM 200 TO 500 (DEG F)

**** 3. FIRE AND EXPLOSIVE HAZARD DATA ****

FLASH POINT ('F) CC 80 OSHA CLASS - FLAMMABLE LIQUID - CLASS 1C
UN NUMBER 1993 DOT CLASS - FLAMMABLE LIQUID
LOWER EXPLOSIVE LIMIT (% BY VOLUME IN AIR) - 0.70
EXTINGUISHING MEDIA: Carbon dioxide or Dry Chemicals for small fires.
Foam for large fires.
CAUTION - Closed containers may build explosive pressure from heat.
Vapors are heavier then air and may travel along the ground or may be moved by ventilation and ignited by pilot lights,other flames,sparks heaters,smoking,electric motors,static discharge, or ignition sources at locations distant from material handling point.
NEVER USE WELDING OR CUTTING TOURCH ON OR NEAR DRUM (EVEN EMPTY) because product (or residue) can ignite explosively
SPECIAL FIRE FIGHTING PROCEDURE: cool closed containers with water spray.

HAZARDOUS DECOMPOSITION PRODUCTS: May form toxic materials:, Carbon Dioxide, Carbon Monoxide, Various Hydrocarbons, Etc.

**** 4. REACTIVITY DATA ****

STABILITY (X) STABLE ( ) UNSTABLE
HAZARDOUS POLYMERIZATION (X) WILL NOT OCCURE ( ) MAY OCCURE
HAZARDOUS DECOMPOSITION - FUMES MAY CONTAIN THE HAZARDOUS MATERIALS LISTED ABOVE.

CONDITIONS AND MATERIALS TO BE AVOIDED

Excess heat, sparks, and open flame

Avoid contact with strong oxidizing agents

Decomposition may produce carbon monoxide and/or carbon dioxide.

**** 5. HEALTH HAZARD DATA ****

PRIMARY ROUTE OF ENTRY: (X) DERMAL (X) INHALATION ( ) INGESTION

Copper Chromite Black Spinel:

	OSHA PEL	ACHIH TLV	%
Copper dusts and mists(as CU)	1.0mg/m3	1.0mg/m3	30
Chromium III cpds (as Cr)	1.0mg/m3	0.5mg/m3	43

This pigment is the result of the high temperature calcination of the component substances. due to its unique crystalline structure the properties of this finished pigment do not necessarily reflect the properties of the component metals or oxides.
Some compounds of the metals contained in this pigment copper and chromium III,have demonstrated various toxic properties. HOWEVER,there is NO EVIDENCE that this pigment has these toxic properties.

Effects of Overexposure: May cause mechanical irritation to eyes and respiratory tract.

Overexposure has been found to cause anemia, eye damage, kidney damage, liver abnormalities, and cardiac abnormality.

Aspiration of material into the lungs can cause chemical pneumonitis, which can be fatal.

EFFECTS OF OVEREXPOSURE: Eyes: Can cause severe irritation, redness, tearing, blurred vision. Skin: Prolonged or repeated contact can cause moderate irritation, defatting, dermatitis. Can be absorbed in toxic amounts, especially from prolonged or repeated exposure. Breathing: Excessive inhalation of vapors can cause nasal and respiratory irritation, dizziness, weakness, fatigue, nausea, headache, possible unconsciousness, and even asphyxiation. Swallowing: Can cause gastrointestinal irritation, nausea, vomiting, diarrhea.

EYE: May cause moderate irritation eith corneal injury.
SKIN CONTACT: Prolonged or repeated exposure may cause skin irritation. SKIN ABSORPTION: A single prolonged exposure is not likely to result in the material being absorbed through skin in harmful amounts. The LD50 for skin in rabbits is approx. 4 g/kg. INGESTION: Single dose oral toxicity is low. The oral LD50 for rats is 5.66 g/kg. Amounts ingested to industrial handling are not likely to cause injury; however ingestion of larger amounts may cause injury. INHALATION: Single exposure is not likely to be hazardous.
SYSTEMIC & OTHER EFFECTS: Excessive exposure may cause liver, kidney and blood effects. Birth defects are unlikely. Exposures having no adverse effects on the mother should have no effect on the fetus. In animal studies, no effects were seen on reproduction or fertility other than a reduction in mean body weight of pups from female rats receiving 1000 mg/kg day orally. Results of mutagenicity tests in animals have been negative. Has been shown to be negative in some in vitro ("test tube") mutagenicity tests and positive in others.

Severe eye irritation, drying of skin. Excessive inhalation causes headache, dizziness, and nausea.

NOTICE: Various studies have shown a possible association with exposure to this product and the following: Respiratory tract irritation, Central Nervous System depression in high concentration. Nausea and vomiting.

Product has low order of acute oral toxicity, but minute amounts aspirated into the lungs during ingestion may cause severe pulmonary injury or death.

**** 7. SECTION 313 SUPPLIER NOTIFICATION ****

This product contains the following toxic chemicals subject to the reporting requirements of section 313 of the Emergency Planning and Community Right-To-Know Act of 1986 and of 40 CFR 372:

CAS #	CHEMICAL NAME	% BY WEIGHT
1330-20-7	XYLENE	22.5
68186-91-4	COPPER CHROMITE BLK SPIN	12.6
7727-43-7	BARIUM SULFATE	8.2
112-34-5	(3)POLYSOLVE DR	1.8
64742-95-6	(3)HIGH F. NAPHTHA	3.2
112-34-5	BUTYL CARBITOL	1.8

This information must be included in all MSDSs that are copied and distributed for this material.

**** 8. FIRST AID AND EMERGENCY PROCEDURES ****

INHALATION: Remove to fresh air immediately. If breathing has stopped, give artificial respiration. Keep warm and quiet. Get medical attention immediately.
YE Flush with large amounts of water, lifting upper and lower lids occasionally. Continue for at least 15 minutes. Get medical attention.
SKIN: Throughly wash exposed area with soap and water. Remove contaminated clothing. Launder contaminated clothing before re-use.
SWALLOWED: Do NOT induce vomiting. Keep person warm, quiet, and get medical attention. Aspiration of material into the lungs due to vomiting can cause chemical pneumonitis which can be fatal.

**** 9. SPECIAL PROTECTION INFORMATION ****

RESPIRATORY PROTECTION: Use self contained breathing apparatus where concentrations may be above TLV limits. Below TLV limits, use a NIOSH approved vapor respirator.
VENTILATION: Local exhaust must be sufficient to keep airborne vapor concentration below the TLV limit.
PROTECTIVE GLOVES: Chemical resistant gloves.
EYE PROTECTION: Safety glasses with side shields.
OTHER PROTECTIVE EQUIPMENT: Eye bath and safety shower. To prevent repeated or prolonged skin contact, wear impervious clothing and boots.

MATERIAL SAFETY DATA SHEET

JUL 19 1993

Unocal Corporation
1201 West 5th Street
Los Angeles, California 90017

Product Name: TOLUENE
Product Code No: 11410

Issue Date: 03/03/92
Status: FINAL

Responsible Party:
UNOCAL CHEMICALS & MINERALS DIVISION
HYDROCARBON SALES
1700 EAST GOLF ROAD
SCHAUMBURG, ILLINOIS 60173-5862

FOR FURTHER INFORMATION CONTACT:
1-800- 967-7601

Transportation Emergencies:
CHEMTREC
(800) 424-9300 Cont. U.S.
from Alaska & Hawaii
Health Emergencies:
LOS ANGELES POISON
CONTROL CENTER (24 hrs)
(800) 356-3129

PRODUCT IDENTIFICATION

Mazda + CAD
clean paint lines to booth

PRODUCT NAME:	[redacted]
SYNONYMS:	METHYLBENZENE TOLUOL
GENERIC NAME:	VOLATILE SOLVENT
CHEMICAL FAMILY:	AROMATIC HYDROCARBON
DOT PROPER SHIPPING NAME:	TOLUENE
ID NUMBER:	UN1294
DOT HAZARD CLASSIFICATION:	FLAMMABLE LIQUID

PRECAUTIONARY WARNING

WARNING!
FLAMMABLE LIQUID AND VAPOR. CAUSES EYE IRRITATION. ASPIRATION HAZARD IF SWALLOWED. CAN ENTER LUNGS AND CAUSE DAMAGE. KEEP AWAY FROM HEAT, SPARKS, FLAME OR OTHER SOURCES OF IGNITION (e.g., STATIC ELECTRICITY, PILOT LIGHTS OR MECHANICAL/ELECTRICAL EQUIPMENT). OPEN CONTAINER SLOWLY TO RELIEVE ANY PRESSURE. KEEP CONTAINER TIGHTLY CLOSED. USE WITH ADEQUATE VENTILATION. DO NOT PRESSURIZE, CUT, WELD, BRAZE, SOLDER, GRIND OR DRILL ON OR NEAR CONTAINER. "EMPTY" CONTAINER RETAINS RESIDUE (LIQUID AND/OR VAPOR) AND MAY EXPLODE IN HEAT OF A FIRE. BOND AND GROUND ALL EQUIPMENT WHEN TRANSFERRING FROM ONE VESSEL TO ANOTHER. AVOID CONTACT WITH EYES. DO NOT TASTE OR SWALLOW. WASH THOROUGHLY AFTER HANDLING.

SECTION I - COMPONENTS

HAZARDOUS COMPONENTS	EXPOSURE LIMIT	UNITS	AGENCY	TYPE
TOLUENE CAS #: 108-88-3	100.000	ppm	ACGIH	TWA
	150.000	ppm	ACGIH	STEL
	100.000	ppm	MSHA	TWA
	100.000	ppm	OSHA	TWA
	150.000	ppm	OSHA	STEL
	200.000	ppm	CAL OSHA	EXCUR
	100.000	ppm	CAL OSHA	TWA-SKIN
	500.000	ppm	CAL OSHA	CEIL-SKIN

SECTION I - COMPONENTS

	EXPOSURE LIMIT	UNITS	AGENCY	TYPE

OTHER COMPONENTS

--NONE--

THIS PRODUCT CONTAINS THE FOLLOWING CHEMICALS SUBJECT TO THE REPORTING REQUIREMENTS OF SARA 313 AND 40 CFR 372:

	CAS NUMBER	WEIGHT %
TOLUENE	108-88-3	99-100

SECTION II - EMERGENCY AND FIRST AID PROCEDURES

EMERGENCY
Have physician call LOS ANGELES POISON CONTROL CENTER (24 hrs) (800) 356-3129

EYE CONTACT:

MOVE VICTIM AWAY FROM EXPOSURE AND INTO FRESH AIR. IF IRRITATION OR REDNESS DEVELOPS, FLUSH EYES WITH CLEAN WATER AND SEEK MEDICAL ATTENTION. FOR DIRECT CONTACT, HOLD EYELIDS APART AND FLUSH THE AFFECTED EYE(S) WITH CLEAN WATER FOR AT LEAST 15 MINUTES. SEEK MEDICAL ATTENTION.

SKIN CONTACT:

REMOVE CONTAMINATED SHOES AND CLOTHING AND CLEANSE AFFECTED AREA(S) THOROUGHLY BY WASHING WITH MILD SOAP AND WATER. IF IRRITATION OR REDNESS DEVELOPS AND PERSISTS, SEEK MEDICAL ATTENTION.

INHALATION (BREATHING):

IF RESPIRATORY SYMPTOMS OR OTHER SYMPTOMS OF EXPOSURE DEVELOP, MOVE VICTIM AWAY FROM SOURCE OF EXPOSURE AND INTO FRESH AIR. IF SYMPTOMS PERSIST, SEEK IMMEDIATE MEDICAL ATTENTION. IF VICTIM IS NOT BREATHING, IMMEDIATELY BEGIN ARTIFICIAL RESPIRATION. IF BREATHING DIFFICULTIES DEVELOP, OXYGEN SHOULD BE ADMINISTERED BY QUALIFIED PERSONNEL. SEEK IMMEDIATE MEDICAL ATTENTION.

INGESTION (SWALLOWING):

THIS MATERIAL IS A POTENTIAL ASPIRATION HAZARD. IF SWALLOWED, SEEK EMERGENCY MEDICAL ATTENTION. IF VICTIM IS DROWSY OR UNCONSCIOUS, PLACE ON THE LEFT SIDE WITH THE HEAD DOWN AND DO NOT GIVE ANYTHING BY MOUTH. BECAUSE OF POTENTIAL TOXICITY, IF VICTIM IS CONSCIOUS AND ALERT, VOMITING SHOULD BE INDUCED FOR INGESTION OF LARGE AMOUNTS (MORE THAN 5 OUNCES IN AN ADULT) PREFERABLY WITH SYRUP OF IPECAC UNDER DIRECTION FROM A PHYSICIAN OR POISON CENTER. IF POSSIBLE, DO NOT LEAVE VICTIM UNATTENDED.

COMMENTS:

NOTE TO PHYSICIANS: EXPOSURE TO HIGH CONCENTRATIONS OF THIS MATERIAL (e.g. IN ENCLOSED SPACES OR WITH DELIBERATE ABUSE) MAY BE ASSOCIATED WITH CARDIAC ARRHYTHMIAS. EPINEPHRINE AND OTHER SYMPATHOMIMETIC DRUGS MAY INITIATE CARDIAC ARRHYTHMIAS IN PERSONS EXPOSED TO THIS MATERIAL. OTHER DRUGS WITH LESS ARRHYTHMOGENIC POTENTIAL SHOULD BE CONSIDERED. IF SYMPATHOMIMETIC DRUGS ARE ADMINISTERED, OBSERVE FOR THE DEVELOPMENT OF CARDIAC ARRHYTHMIAS.

SECTION III - HEALTH HAZARDS/ROUTES OF ENTRY

EYE CONTACT:

THIS MATERIAL IS AN EYE IRRITANT. DIRECT CONTACT WITH THE LIQUID OR EXPOSURE TO VAPORS OR MISTS MAY CAUSE STINGING, TEARING, REDNESS AND SWELLING.

SECTION III - HEALTH HAZARDS/ROUTES OF ENTRY

SKIN CONTACT:

THIS MATERIAL MAY CAUSE SKIN IRRITATION. PROLONGED OR REPEATED CONTACT OR EXPOSURE TO VAPORS OR MISTS MAY CAUSE REDNESS, BURNING, AND DRYING AND CRACKING OF THE SKIN. CONTACT MAY RESULT IN SKIN ABSORPTION BUT SYMPTOMS OF TOXICITY ARE NOT ANTICIPATED BY THIS ROUTE ALONE UNDER NORMAL CONDITIONS OF USE. PERSONS WITH PRE-EXISTING SKIN DISORDERS MAY BE MORE SUSCEPTIBLE TO THE EFFECTS OF THIS MATERIAL.

INHALATION (BREATHING):

THIS MATERIAL IS SLIGHTLY TOXIC BY INHALATION. EFFECTS OF OVEREXPOSURE MAY INCLUDE IRRITATION OF THE NOSE AND THROAT AND SIGNS OF NERVOUS SYSTEM DEPRESSION (E.G., HEADACHE, DROWSINESS, DIZZINESS, LOSS OF COORDINATION AND FATIGUE). RESPIRATORY SYMPTOMS ASSOCIATED WITH PRE-EXISTING LUNG DISORDERS (e.g. ASTHMA-LIKE CONDITIONS) MAY BE AGGRAVATED BY EXPOSURE TO THIS MATERIAL.

INGESTION (SWALLOWING):

WHILE THIS MATERIAL HAS A LOW DEGREE OF TOXICITY, INGESTION OF EXCESSIVE QUANTITIES MAY CAUSE IRRITATION OF THE DIGESTIVE TRACT AND SIGNS OF NERVOUS SYSTEM DEPRESSION (E.G., HEADACHE, DROWSINESS, DIZZINESS, LOSS OF COORDINATION AND FATIGUE). ASPIRATION HAZARD - THIS MATERIAL CAN ENTER LUNGS DURING SWALLOWING OR VOMITING AND CAUSE LUNG INFLAMMATION AND DAMAGE.

COMMENTS:

THIS MATERIAL HAS NOT BEEN IDENTIFIED AS A CARCINOGEN BY NTP, IARC OR OSHA. PERSONS WITH PRE-EXISTING HEART DISORDERS MAY BE MORE SUSCEPTIBLE TO IRREGULAR HEARTBEATS (ARRHYTHMIAS) IF EXPOSED TO HIGH CONCENTRATIONS OF THIS MATERIAL (SEE SECTION II - NOTE TO PHYSICIANS). INTENTIONAL MISUSE BY DELIBERATE INHALATION OF TOLUENE HAS BEEN SHOWN TO CAUSE LIVER, KIDNEY AND BRAIN DAMAGE. RESULTS OF TESTS IN WORKERS HAVE SHOWN THAT EXPOSURE TO HIGH CONCENTRATIONS OF TOLUENE CAN CAUSE IRREVERSIBLE CHANGES IN THE GENETIC MATERIAL (DNA) OF A CELL. THE HUMAN HEALTH CONSEQUENCES OF THESE CHANGES IS NOT FULLY UNDERSTOOD. PRE-EXISTING LIVER AND KIDNEY DISORDERS MAY BE AGGRAVATED BY EXPOSURE TO THIS MATERIAL. INHALATION OF TOLUENE PRODUCED LIMITED EVIDENCE OF HEARING LOSS IN LABORATORY ANIMALS. THE RELEVANCE OF THESE FINDINGS TO HUMANS IS UNCERTAIN. REPORTS HAVE ASSOCIATED REPEATED AND PROLONGED OCCUPATIONAL OVEREXPOSURE TO SOLVENTS WITH PERMANENT BRAIN AND NERVOUS SYSTEM DAMAGE (SOMETIMES REFERRED TO AS SOLVENT OR PAINTERS' SYNDROME). INTENTIONAL MISUSE BY DELIBERATELY CONCENTRATING AND INHALING THIS PRODUCT MAY BE HARMFUL OR FATAL.

SECTION IV - SPECIAL PROTECTION INFORMATION

VENTILATION:

IF CURRENT VENTILATION PRACTICES ARE NOT ADEQUATE TO MAINTAIN AIRBORNE CONCENTRATIONS BELOW THE ESTABLISHED EXPOSURE LIMITS (SEE SECTION I), ADDITIONAL VENTILATION OR EXHAUST SYSTEMS MAY BE REQUIRED. WHERE EXPLOSIVE MIXTURES MAY BE PRESENT, ELECTRICAL SYSTEMS SAFE FOR SUCH LOCATIONS MUST BE USED.

RESPIRATORY PROTECTION:

THE USE OF RESPIRATORY PROTECTION IS ADVISED WHEN CONCENTRATIONS EXCEED THE ESTABLISHED EXPOSURE LIMITS (SEE SECTION I). DEPENDING ON THE AIRBORNE CONCENTRATION, USE A RESPIRATOR OR GAS MASK WITH APPROPRIATE CARTRIDGES AND CANNISTERS (NIOSH APPROVED, IF AVAILABLE) OR SUPPLIED AIR EQUIPMENT.

PROTECTIVE GLOVES:

THE USE OF GLOVES IMPERMEABLE TO THE SPECIFIC MATERIAL HANDLED IS ADVISED TO PREVENT SKIN CONTACT, POSSIBLE IRRITATION AND ABSORPTION.

SECTION VII - STORAGE AND SPECIAL PRECAUTIONS

HANDLING AND STORAGE PRECAUTIONS:

KEEP CONTAINER(S) TIGHTLY CLOSED. OPEN CONTAINER SLOWLY TO RELIEVE ANY PRESSURE. USE AND STORE THIS MATERIAL IN COOL, DRY, WELL VENTILATED AREAS AWAY FROM HEAT, DIRECT SUNLIGHT, HOT METAL SURFACES AND ALL SOURCES OF IGNITION. POST AREA "NO SMOKING OR OPEN FLAME." BOND AND GROUND ALL EQUIPMENT WHEN TRANSFERRING FROM ONE VESSEL TO ANOTHER. STORE ONLY IN APPROVED CONTAINERS. KEEP AWAY FROM ANY INCOMPATIBLE MATERIALS (SEE SECTION V). PROTECT CONTAINER(S) AGAINST PHYSICAL DAMAGE. THE USE OF EXPLOSION-PROOF EQUIPMENT IS RECOMMENDED AND MAY BE REQUIRED (SEE APPROPRIATE FIRE CODES.) DO NOT ENTER CONFINED SPACES SUCH AS TANKS OR PITS WITHOUT FOLLOWING PROPER ENTRY PROCEDURES SUCH AS ASTM D-4276. OUTDOOR OR DETACHED STORAGE IS PREFERRED. INDOOR STORAGE SHOULD MEET OSHA STANDARDS AND APPROPRIATE FIRE CODES. THE USE OF RESPIRATORY PROTECTION IS ADVISED WHEN CONCENTRATIONS EXCEED ANY ESTABLISHED EXPOSURE LIMITS (SEE SECTIONS I AND IV). WASH THOROUGHLY AFTER HANDLING. DO NOT WEAR CONTAMINATED CLOTHING OR SHOES. USE GOOD PERSONAL HYGIENE PRACTICE. "EMPTY" CONTAINERS RETAIN RESIDUE (LIQUID AND/OR VAPOR) AND CAN BE DANGEROUS. DO NOT PRESSURIZE, CUT, WELD, BRAZE, SOLDER, DRILL, GRIND OR EXPOSE SUCH CONTAINERS TO HEAT, FLAME, SPARKS OR OTHER SOURCES OF IGNITION; THEY MAY EXPLODE AND CAUSE INJURY OR DEATH. "EMPTY" DRUMS SHOULD BE COMPLETELY DRAINED, PROPERLY BUNGED AND PROMPTLY SHIPPED TO THE SUPPLIER OR A DRUM RECONDITIONER. ALL OTHER CONTAINERS SHOULD BE DISPOSED OF IN AN ENVIRONMENTALLY SAFE MANNER AND IN ACCORDANCE WITH GOVERNMENTAL REGULATIONS. BEFORE WORKING ON OR IN TANKS WHICH CONTAIN OR HAVE CONTAINED THIS PRODUCT, REFER TO OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION REGULATIONS, ANSI Z49.1, AND OTHER GOVERNMENTAL AND INDUSTRIAL REFERENCES PERTAINING TO CLEANING, REPAIRING, WELDING, OR OTHER CONTEMPLATED OPERATIONS.

SECTION VIII - FIRE AND EXPLOSION HAZARD DATA

			HAZARD RANKING	AUTO IGNITION	FLASH POINT
NFPA HAZARD CLASS	HEALTH HAZARD:	2	0 - LEAST		
	FLAMMABILITY:	3	1 - SLIGHT		
	REACTIVITY:	0	2 - MODERATE	1000 F	45 F (TCC)
	OTHER:		3 - HIGH		
			4 - EXTREME		
			* - CHRONIC HEALTH EFFECTS		
HMIS HAZARD CLASS	HEALTH HAZARD:	2			
	FLAMMABILITY:	3			
	REACTIVITY:	0			
	PPE:				

LOWER EXPLOSIVE LIMIT (% VOL.)	UPPER EXPLOSIVE LIMIT (% VOL.)
1.0	7.0

EXTINGUISHING MEDIA:

DRY CHEMICAL, CARBON DIOXIDE, HALON, FOAM OR WATER SPRAY IS RECOMMENDED. WATER MAY BE INEFFECTIVE.

UNUSUAL FIRE & EXPLOSION HAZARDS:

THIS MATERIAL IS FLAMMABLE AND MAY BE IGNITED BY HEAT, SPARKS, FLAME OR OTHER SOURCES OF IGNITION (e.g. STATIC ELECTRICITY, PILOT LIGHTS, MECHANICAL/ELECTRICAL EQUIPMENT). VAPORS MAY TRAVEL CONSIDERABLE DISTANCES TO A SOURCE OF IGNITION WHERE THEY MAY IGNITE, FLASHBACK OR EXPLODE. VAPOR/AIR EXPLOSION HAZARD INDOORS/OUTDOORS OR IN SEWERS. VAPORS ARE HEAVIER THAN AIR AND MAY ACCUMULATE IN LOW AREAS. IF CONTAINER IS NOT PROPERLY COOLED, IT MAY EXPLODE IN THE HEAT OF A FIRE.

SPECIAL FIRE FIGHTING PROCEDURES:

WEAR APPROPRIATE PROTECTIVE EQUIPMENT INCLUDING RESPIRATORY PROTECTION AS CONDITIONS WARRANT (SEE SECTION IV). STOP SPILL/RELEASE IF IT CAN BE DONE WITHOUT RISK. MOVE UNDAMAGED CONTAINERS FROM FIRE AREA IF IT CAN BE DONE WITHOUT RISK. WATER SPRAY MAY BE USEFUL IN MINIMIZING OR DISPERSING VAPORS AND COOLING EQUIPMENT EXPOSED TO HEAT AND

SECTION VIII - FIRE AND EXPLOSION HAZARD DATA

FLAME. AVOID SPREADING BURNING LIQUID WITH WATER USED FOR COOLING PURPOSES.

SECTION IX - PHYSICAL DATA

***UNLESS OTHERWISE NOTED, VALUES ARE AT 20 C/68 F AND 760 mm Hg/1 atm.

APPROX. BOILING POINT	(AIR = 1) VAPOR DENSITY	(N-BUTYL ACETATE = 1) EVAPORATION RATE	% VOLATILE
231-232 F	3.2	1.9	100

% SOLUBILITY IN WATER	APPROX. VAPOR PRESSURE (mm Hg)
<0.1	24

SPECIFIC GRAVITY	APPROX. BULK DENSITY (lb/gal)
0.871 (60F/60F)	7.25 (60F)

APPEARANCE

WATER WHITE LIQUID

ODOR

CHARACTERISTIC HYDROCARBON

SECTION X - DOCUMENTARY INFORMATION

ISSUE DATE: 03/03/92	PRODUCT CODE NO. 11410
PREV. DATE: 01/29/91	PREV. PROD. CODE NO. NONE
MSDS NO: NONE	PREV. MSDS NO: NONE

DISCLAIMER OF EXPRESSED AND IMPLIED WARRANTIES

The information in this document is believed to be correct as of the date issued. HOWEVER, NO WARRANTY OF MERCHANTABILITY, FITNESS FOR ANY PARTICULAR PURPOSE, OR ANY OTHER WARRANTY IS EXPRESSED OR IS TO BE IMPLIED REGARDING THE ACCURACY OR COMPLETENESS OF THIS INFORMATION, THE RESULTS TO BE OBTAINED FROM THE USE OF THIS INFORMATION OR THE PRODUCT, THE SAFETY OF THIS PRODUCT, OR THE HAZARDS RELATED TO ITS USE. This information and product are furnished on the condition that the person receiving them shall make his own determination as to the suitability of the product for his particular purpose and on the condition that he assume the risk of his use thereof.

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APPENDIX C

PERMIT TO CONSTRUCT

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

We make Indiana a cleaner, healthier place to live

Evan Bayh
Governor

Kathy Prosser
Commissioner

100 North Senate Avenue
P.O. Box 6015
Indianapolis, Indiana 46206-6015
Telephone 317-232-8603
Environmental Helpline 1-800-451-6027

February 11, 1994

To: Jim Bell
Please have the work completed as soon as possible
Rec 2/14/94 MJA
Mail ok 2/15/94

Certified Mail P 335 077 684

Arvin Industries, Incorporated
1001 North Hurricane Street
Franklin, Indiana 46131

Attention: Mr. Douglas A. Logan - Director, Environmental Affairs and Safety

Re: Interim Construction Permit and Operation Status Approval, CP 081-3535, Plt ID 081-00020

Ladies and Gentlemen:

The Arvin Industries, Incorporated interim construction permit petition (enclosed), submitted on February 4, 1994 has been reviewed. Based on the data submitted and the provisions in Sections 1, 2, and 3.1 of 326 IAC 2-1, this petition is approved for the following, to be located at 1001 North Hurricane Street in Franklin, Indiana is classified as interim construction:

One (1) Parts Washer, using aqueous wash and rinse, and having three (3) natural gas burners rated at 1,500,000 Btu per hour, 1,500,000 Btu per hour, and 800,000 Btu per hour, located at washer stages 1, 2, and 5 respectively.

One (1) natural gas only fueled oven, rated at 6,400,000 Btu per hour.

One (1) Binks Spray Coating Application Booth, equipped with high volume low pressure spray application equipment. Booth shall be equipped with a dry filter particulate emission control device. Booth shall be equipped with a 30,000 acfm exhaust fan - exhausting through a stack thirty (30) inches in diameter and discharging 29 feet above ground level.

The above construction shall be subject to the following conditions:

1. That this interim construction permit does not relieve the permittee of the responsibility to comply with the provisions of the Indiana Department of Environmental Management Law (IC 13-7), Air Pollution Control Law (IC 13-1-1) and the rules promulgated thereunder, as well as other applicable local, state, and federal requirements.

conditions continue next page

2. That the equipment shall be installed in accordance with the manufacturer's specifications.

3. That pursuant to 326 IAC 8-2-9, the volatile organic compound content of coatings applied to automotive mufflers shall be limited to 3.5 pounds of volatile organic compounds per gallon of coating less water delivered to the applicator.

4. That the total volume of coating delivered to the applicator shall not exceed 1,600 gallons per month. Also that satisfaction of this condition and condition 3 shall be deemed to render the Prevention of Significant Deterioration rules (326 IAC 2-2 and 40 CFR 52.21) not applicable to this construction.

5. That a log of information necessary to document compliance with condition 4 shall be maintained. These records shall be kept for at least the past 24 month period and and made available upon request to the Office of Air Management. Such records shall include the volatile organic compound content of all coating applied in the coating application booth and the volume of coating delivered to the applicator.

This interim construction permit is federally enforceable and expires on the effective date of the final construction permit. This interim construction permit may be revoked after its effective date upon a written finding by the commissioner that any of the reasons for denial in 326 IAC 2-1-3.1(d) exists or if the final construction permit is denied. The facilities subject to this approval may not operate until both the construction permit and validation letter are issued by the Office of Air Management.

Sincerely,

Paul Dubenetzky

Paul Dubenetzky, Chief
Permits Branch
Office of Air Management

DLW
cc: Johnson County Health Department
Air Compliance Section
Compliance Branch - Tracking
Data Support Section

ARVIN
NORTH AMERICAN
AUTOMOTIVE

January 6, 1994

By Hand Delivery

Ms. Kathy Prosser
Indiana Department of Environmental Management
105 South Meridian Street
Indianapolis, Indiana 46206-6015

Subject: Air Pollution Construction
Permit Application
Arvin North American Automotive
Franklin, Indiana

Dear Ms. Prosser:

The permit application for a new air pollution source at the Arvin North American Automotive (NAA) facility in Franklin, Indiana is enclosed. The proposed source is in addition to existing sources at this location that are registered under ID number 081-00020 (6 November 1992). No changes to the existing sources or operations are proposed at this time.

The proposed source is required to meet the needs of a new program that will produce approximately 450,000 exhaust systems for a large North American automobile manufacturer. The target for full operation of the new production line is July 1994. To the best of our knowledge and belief, the information included in this application is true, correct, and accurate. NAA will make every effort to ensure that changes in the process or schedule conform to Indiana regulations.

Please contact me at (812) 379-3575 if there are any questions or problems about this matter.

Sincerely,

Douglas A. Logan, P.E.
Director of Environmental Affairs

10/16/95

FROM Angie Lee
⇒ This info. should be combined w/ app. Talk to ADL + D.J. Watts.
KAW.

1531 13th Street, Box Number 3002, Columbus, Indiana 47202 Phone: 812/379-3000 a division of Arvin Industries, Inc.

BACT Analysis

Arvin North American Automotive
Franklin, Indiana
January 6, 1994

Economic analysis of control options for the proposed source is based on potential VOC emissions estimated at 149,000 pounds/year. Cost estimates and analysis are based on the OAQPS Control Coast Manual (4th ed., January 1990). Equipment costs were scaled from 3rd quarter 1989 values to 3rd quarter 1993 (most recent available) using the Marshal & Swift Equipment Cost Index published monthly in **Chemical Engineering** magazine.

Only thermal oxidation systems were studied. Activated carbon adsorption is not feasible because of the possibility of fouling the bed with entrained particulate matter. Catalytic incineration is not feasible because of the risk that the catalyst bed might be poisoned by the silicone resin used in the coating.

Utility cost estimates neglect the heating value of VOC pollutants in the spray booth exhaust. For this application, the VOC concentration is considered too low to contribute significantly to the heating value.

None of the options studied appear to be cost effective for this application.

Control Option #1 - Regenerative Thermal Oxidation

Capital Cost

30,000 SCFM regenerative thermal oxidation unit, 95% recovery sized per Equation 3.28, OAQPS Control Cost Manual, 4th Ed.	$612,000
Instrumentation, taxes, and freight @ 18%	110,000
Purchased Equipment Cost (PEC)	722,000
Installation direct costs @ 30% PEC	217,000
Installation indirect costs @ 31% PEC	224,000
Total Capital Cost (TCC)	$1,163,000

Annual Cost

1. Labor	
a. operator (1/2 hr/shft, 500 shft/yr @ $12.00/hr)	$3,000
b. supervisor @ 15% 1a	500
2. Maintenance	
a. labor (1/2 hr/shft, 500 shft/yr @ $14.00/hr)	3,500
b. materials @ 100% 2a	3,500
3. Utilities, per OAQPS Manual	
a. electricity - 175.5 kW, 4,000 hr/yr @ $0.065/kWh	45,600
b. natural gas - 2.7 MCF/hr, 4,000 hr/yr @ $4.00/MCF	43,200
4. Overhead @ 60% (1a+1b+2a)	4,200
5. Administration, property taxes, and insurance @ 4% TCC	46,500
6. Capital recovery @ 10 yr. and 10% (0.1628)	189,000
Total Annual Cost	$339,000
VOC reduction (149,000 lb. generated @ 98% removal)	146,000
Annual cost per pound of VOC removed	$2.32

Control Option #2 - Regenerative Thermal Oxidation
With Recirculating Air

Capital Cost

Single 10,000 SCFM regenerative thermal oxidation unit, 95% recovery sized per Equation 3.28, OAQPS Control Cost Manual, 4th Ed.	$362,000
Additional ductwork for recirculating 67% of spray booth air	80,000
Instrumentation, taxes, and freight @ 18%	65,000
Purchased Equipment Cost (PEC)	507,000
Installation direct costs @ 30% PEC	152,000
Installation indirect costs @ 31% PEC	157,000
Total Capital Cost (TCC)	$816,000

Annual Cost

1. Labor	
a. operator (1/2 hr/shft, 500 shft/yr @ $12.00/hr)	$3,000
b. supervisor @ 15% 1a	500
2. Maintenance	
a. labor (1/2 hr/shft, 500 shft/yr @ $14.00/hr)	3,500
b. materials @ 100% 2a	3,500
3. Utilities, per OAQPS Manual	
a. electricity - 58.5 kW, 4,000 hr/yr @ $0.065/kWh	15,200
b. natural gas - 0.9 MCF/hr, 4,000 hr/yr @ $4.00/MCF	14,400
4. Overhead @ 60% (1a+1b+2a)	4,200
5. Administration, property taxes, and insurance @ 4% TCC	32,600
6. Capital recovery @ 10 yr. and 10% (0.1628)	133,000
Total Annual Cost	$210,000
VOC reduction (149,000 lb. generated @ 98% removal)	146,000
Annual cost per pound of VOC removed	$1.44

Control Option #3 - Recuperative Thermal Oxidation
With Recirculating Air

Capital Cost

10,000 SCFM recuperative thermal oxidation unit, 70% recovery sized per Equation 3.27, OAQPS Control Cost Manual, 4th Ed.	$230,000
Additional ductwork for recirculating 67% of spray booth air	80,000
Instrumentation, taxes, and freight @ 18%	41,000
Purchased Equipment Cost (PEC)	351,000
Installation direct costs @ 30% PEC	105,000
Installation indirect costs @ 31% PEC	109,000
Total Capital Cost (TCC)	$565,000

Annual Cost

1. Labor	
a. operator (1/2 hr/shft, 500 shft/yr @ $12.00/hr)	$3,000
b. supervisor @ 15% 1a	500
2. Maintenance	
a. labor (1/2 hr/shft, 500 shft/yr @ $14.00/hr)	3,500
b. materials @ 100% 2a	3,500
3. Utilities, per OAQPS Manual	
a. electricity - 37.05 kW, 4,000 hr/yr @ $0.065/kWh	9,600
b. natural gas - 9 MCF/hr, 4,000 hr/yr @ $4.00/MCF	144,000
4. Overhead @ 60% (1a+1b+2a)	4,200
5. Administration, property taxes, and insurance @ 4% TCC	22,600
6. Capital recovery @ 10 yr. and 10% (0.1628)	92,000
Total Annual Cost	$283,000
VOC reduction (149,000 lb. generated @ 98% removal)	146,000
Annual cost per pound of VOC removed	$1.94

IDENTIFICATION OF POTENTIALLY AFFECTED PERSONS

Please read the attached letter from the Commissioner, and list here any persons whom you have reason to believe have a substantial or proprietary interest in this matter, or could otherwise be considered to be potentially affected under the law. Failure to notify a person who is later determined to be potentially affected could result in voiding our decision on procedural grounds. To ensure conformance with the Administrative Adjudication Act and to avoid reversal of a decision, please list all such parties. Use additional sheets if necessary.

NAME _____ NAME _____

STREET _____ STREET _____

CITY, STATE, ZIP _____ CITY, STATE, ZIP _____

NAME _____ NAME _____

STREET _____ STREET _____

CITY, STATE, ZIP _____ CITY, STATE, ZIP _____

NAME _____ NAME _____

STREET _____ STREET _____

CITY, STATE, ZIP _____ CITY, STATE, ZIP _____

CHECK APPROPRIATE BOX

- [x] Construction Permit
- [ ] Operation Permit
- [ ] Variance
- [ ] Other _____

ADDRESS OF SITE:

Street 1001 N. Hurricane st.

City Franklin

Please complete this form by signing the following statement:

I certify that to the best of my knowledge I have listed all potentially affected parties, as defined by IC 4-21.5, known to me. If none are listed it signifies that no such parties are known.

SIGNATURE [signature]

PRINTED NAME DOUGLAS A LOGAN

COMPANY Arvin Industries Inc.

DATE 1-6-94

FORM A-C

STATE OF INDIANA
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR MANAGEMENT
CONSTRUCTION PERMIT APPLICATION

GENERAL INFORMATION

Company Name Arvin Industries, Inc. Franklin Plant

Phone (317) 736-7111

Mailing Address 1001 N. Hurricane (Street, P.O. Box) Franklin (City) 46131 (Zip Code)

New Construction Location 1001 N. Hurricane (No., St., Rd., Hwy.) Franklin (City) Johnson (County)

Person to Contact on Matters of Air Pollution:

Name Douglas A. Logan

Title Director Environmental Affairs & Safety Phone (812) 379-3000

If you have changed company name or location in the past six (6) years, please list the previous name(s) and location(s):

Name

Location

Standard Industrial Classification Code 3714
(if you do not know, a short description of business will suffice)

What is being installed? Production Line for Automotive pipe & muffler assemblies.

Is construction an entirely new plant? NO

Estimated Cost of Project $ 3.2 Million

Estimated Cost of Air Pollution Control Equipment $ 340,000

Estimated date construction will start January 1994

Estimated date construction will be complete June 1994

Estimated date operation will begin July 1994

I hereby certify that the information submitted this 6TH day of January 19 94 is true and correct to the best of my knowledge.

Signature

Title Vice President

Plans and Specifications Approved By:

Indiana P.E. License No. 910175

DOUGLAS A. LOGAN REGISTERED No. 910175 STATE OF INDIANA PROFESSIONAL ENGINEER

STATE OF INDIANA
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR MANAGEMENT

FORM B

Plant Layout and GEP Stack Height Information Sheet

Company Name Arvin Industries, Inc. Franklin Plant

This permit application must include a plant layout(s) showing the following information:

1. Drawings, several, if necessary, but each one must be to scale, with actual scale shown. All dimensions must be clearly indicated. This includes building heights, widths, and lengths, and their distance relationship with the property line. It should also indicate where fences or other access-limiting features exist.

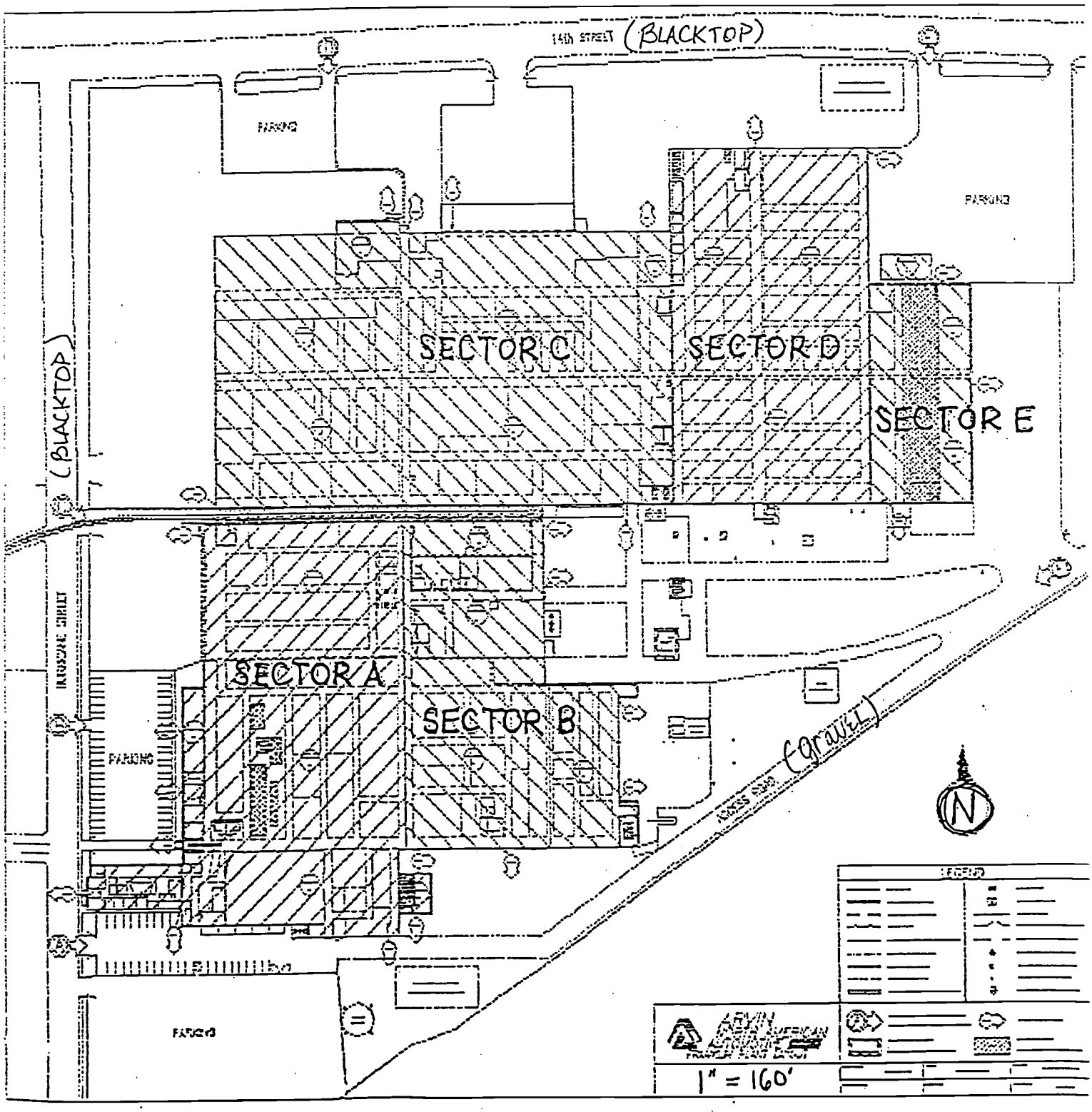
2. The layout must show the location of all emission points (exhaust stacks, roof monitors, control devices, or process vents, etc.). Identify each of these emission points under "Stack Identification" on the appropriate forms.

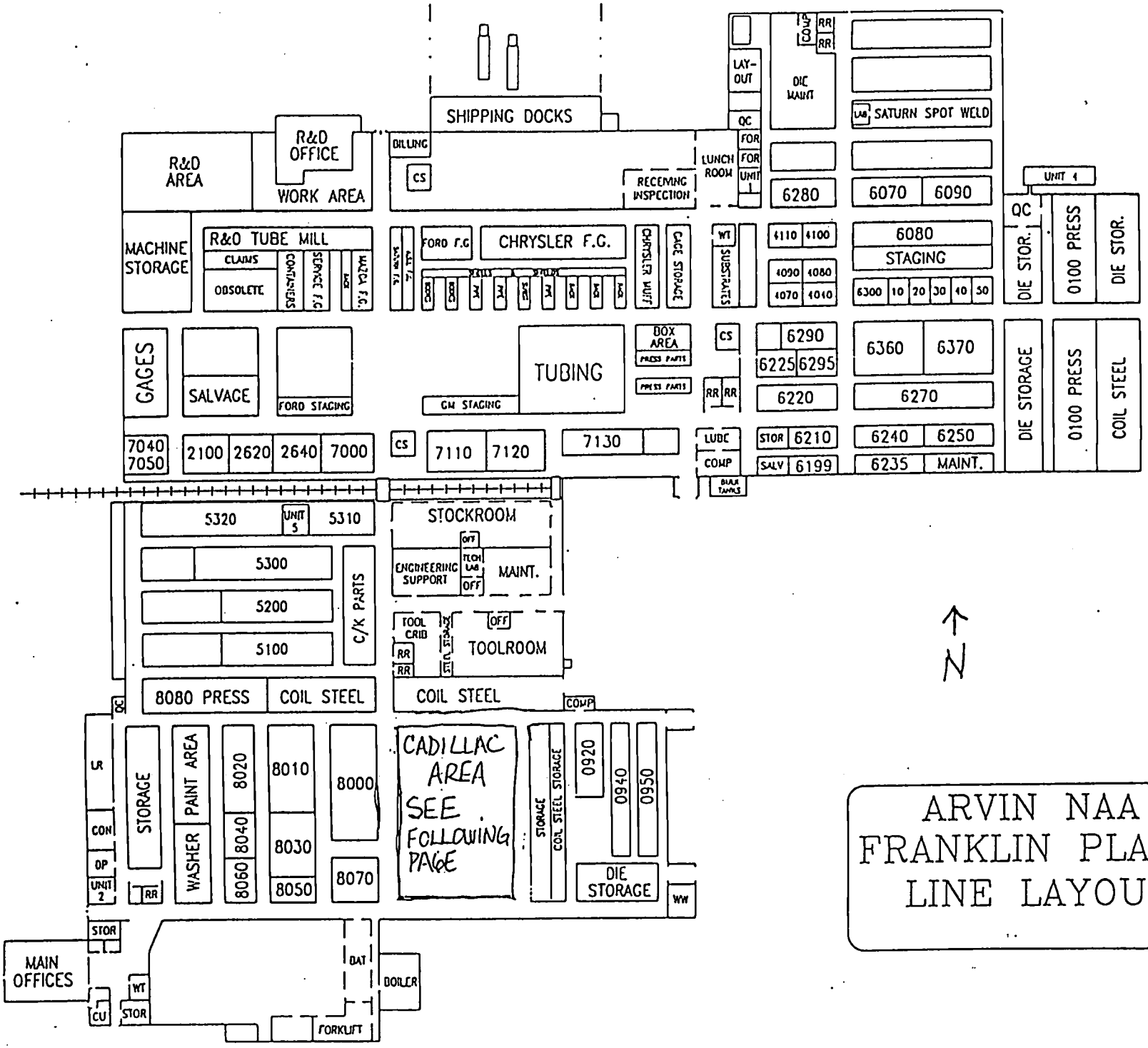
3. The layout(s) must show all roadways and description of roadway surfaces.

4. The layout(s) must include a compass pointing north.

SEE ATTACHED SHEETS

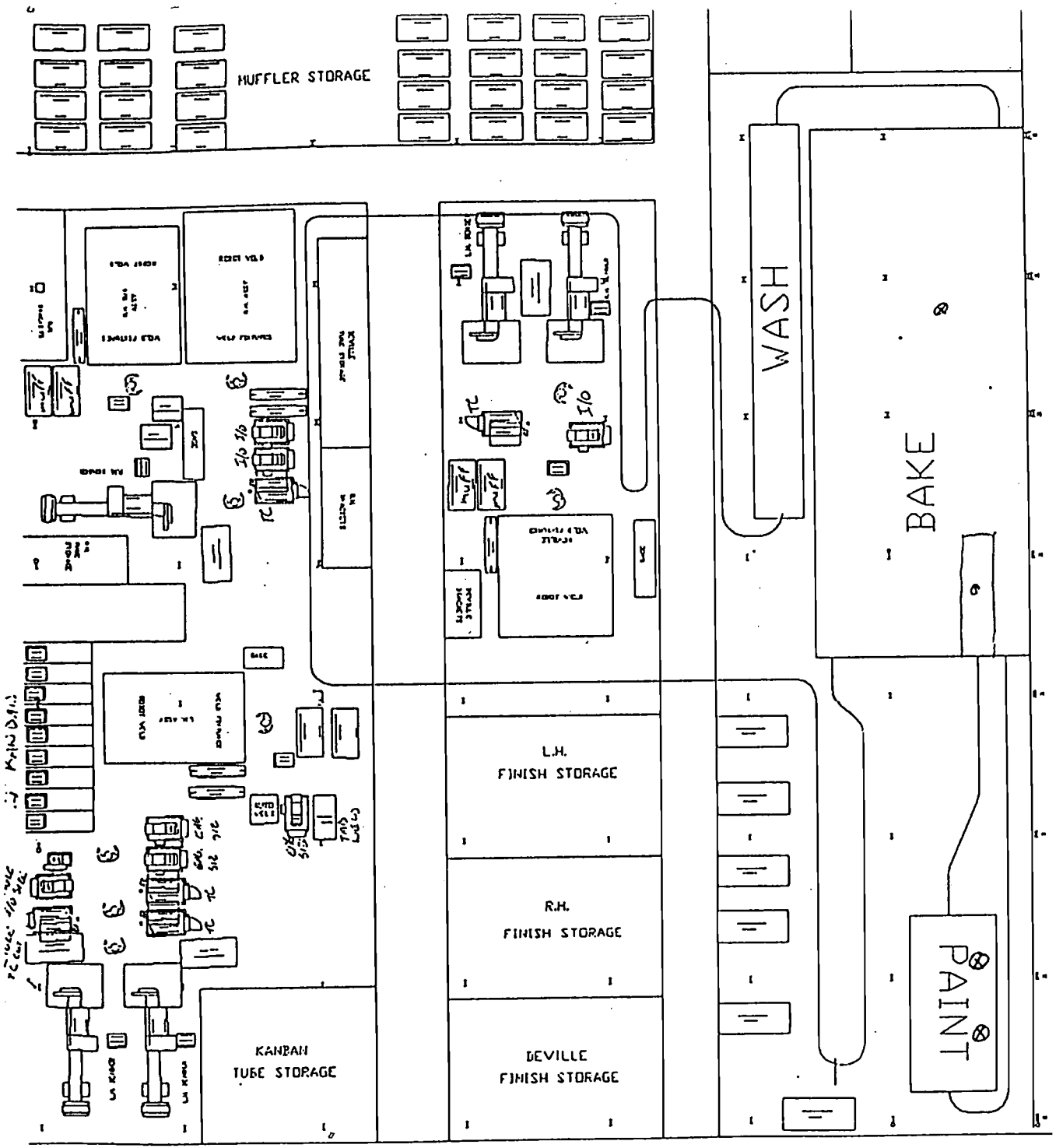
PLANT LAYOUT





ARVIN NAA FRANKLIN PLANT LINE LAYOUT

CADILLAC AREA



OVEN EXHAUST
1 - 12" ϕ
7500 CFM

IR PREHEAT EXHAUST
1 - 12" ϕ
7500 CFM

BOOTH EXHAUST
2 - 30" ϕ
30000 CFM TOTAL

FORM C

STATE OF INDIANA
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR MANAGEMENT

Incinerator Information

Not Applicable XXX

Company Name Arvin Industries, Inc. Franklin Plant

Manufacturer _____ Model _____

(Furnish sketch with dimensions)

Design Capacity _____ lb/hr _____ Btu/hr

Type of Waste Burned (Be Specific) _____

_____

Check one: Single Chamber w/Afterburner _____ Multiple Chambers _____

Burner in Primary Chamber? Yes _____ No _____

Burner in Secondary Chamber? Yes _____ No _____

Type of Fuel _____

Chamber	Primary	Secondary
Residence Time (sec)	_____	_____
Temperature (°F)	_____	_____

STACK DATA

Stack Identification _____

Height (ft above ground) _____

Diameter (ft inside) _____

Gas discharge Temperature (°F) _____

Gas Flow Rate (acfm) _____

OPERATION SCHEDULE

Hours/Day _____

Days/Week _____

Weeks/Year _____

Manufacturer's Guaranteed Emission Rate (lb particulate matter per 1,000 lb dry exhaust gas at 70°F and 1 atm, corrected to 50 % excess air) _____

Revised 9/22/83

FORM D

STATE OF INDIANA
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR MANAGEMENT

Fuel Combustion Information
Boilers, Heaters, Ovens or other Fuel Combustion Units (FCU)

Not Applicable _____

Company Name Arvin Industries, Inc. Franklin Plant

Type of FCU	Burner	Burner
FCU Identification	Washer Stage 1	Washer Stage 2
Method of Fuel Feed		
* Capacity (MM Btu/hr input)	1.5	1.5
** Fire Box Volume (cu ft)		
Start of Construction Date	1-94	1-94
Start of Operation Date	7-94	7-94
FUEL		
Type Used	Natural gas	Natural gas
% Ash Min/Max (solid fuel only)		
% Sulfur Min/Max		
Higher Heating Value Min/Max	1 MM BTU/1 MCF	1 MM BTU/1 MCF
Amount Burned/Yr (ton, cu ft, gal)	6000 MCF	6000 MCF
EMISSION CONTROL UNIT		
Type of PM Emission Control Unit	NONE	NONE
% Efficiency		
Type of SO2 Emission Control Unit	NONE	NONE
% Efficiency		
Type of NOx Emission Control Unit	NONE	NONE
% Efficiency		
STACK DATA		
Stack Identification	Exhaust through oven	Exhaust through oven
Height (ft above ground)		
Diameter (ft inside)		
Gas Discharge Temperature (°F)		
Gas Flow Rate (acfm)		
OPERATION SCHEDULE		
Hours/Day	16	16
Days/Week	5	5
Weeks/Year	50	50

* note: MM = million
** complete only if boiler over 100 MM Btu/hr

Revised 10-25-88

FORM D

STATE OF INDIANA
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR MANAGEMENT

Fuel Combustion Information
Boilers, Heaters, Ovens or other Fuel Combustion Units (FCU)

Not Applicable _____

Company Name Arvin Industries, Franklin Plant

Type of FCU	Burner	Burner
FCU Identification	Washer Stage 5	Oven
Method of Fuel Feed		
* Capacity (MM Btu/hr input)	.8	6.4
** Fire Box Volume (cu ft)		
Start of Construction Date	1-94	1-94
Start of Operation Date	7-94	7-94
FUEL		
Type Used	Natural gas	Natural gas
% Ash Min/Max (solid fuel only)		
% Sulfur Min/Max		
Higher Heating Value Min/Max	1 MM BTU/1 MCF	1 MM BTU/1 MCF
Amount Burned/Yr (ton, cu ft, gal)	3200 MCF	26,600 MCF MAXIMUM
EMISSION CONTROL UNIT		
Type of PM Emission Control Unit	NONE	NONE
% Efficiency		
Type of SO2 Emission Control Unit	NONE	NONE
% Efficiency		
Type of NOx Emission Control Unit	NONE	NONE
% Efficiency		
STACK DATA		
Stack Identification	Exhaust through oven	oven Exhaust
Height (ft above ground)		30'
Diameter (ft inside)		1'
Gas Discharge Temperature (°F)		450°
Gas Flow Rate (acfm)		7500 CFM
OPERATION SCHEDULE		
Hours/Day	16	16
Days/Week	5	5
Weeks/Year	50	50

* note: MM = million
** complete only if boiler over 100 MM Btu/hr

Revised 10-25-88

STATE OF INDIANA
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR MANAGEMENT

FORM E

Process Information

Not Applicable _____

Company Name Arvin Industries, Inc.

Products Produced Automotive pipe & muffler assemblies

Raw Material Rate (use an additional sheet if needed)

TYPE MATERIAL	RATE(LB/HR)
WABASH KB809HSHH	58

Finished Product

Pounds/Hour Maximum Not Determined Normal _____

Process and Control Equipment (Use an additional sheet if needed)
Process Identification:

1 Binks paint booth W/ parts washer, Dry off & Bake oven.

Type of Control Andreae filter
Efficiency 90%
For Dry Collectors, Tons/year Collected N/A
STACK DATA
Stack Identification NONE

Height(ft. above ground) 29' agl

Diameter(ft. inside) 2.83'

Gas Discharge Temperature(Deg F) Ambient

Gas Flow Rate (acfm) 30,000 cfm

Operation Schedule

Hours/Day 16
Days/Week 5
Weeks/Year 50

STATE OF INDIANA
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR MANAGEMENT

FORM F

Flow Diagram

Not Applicable___ ___

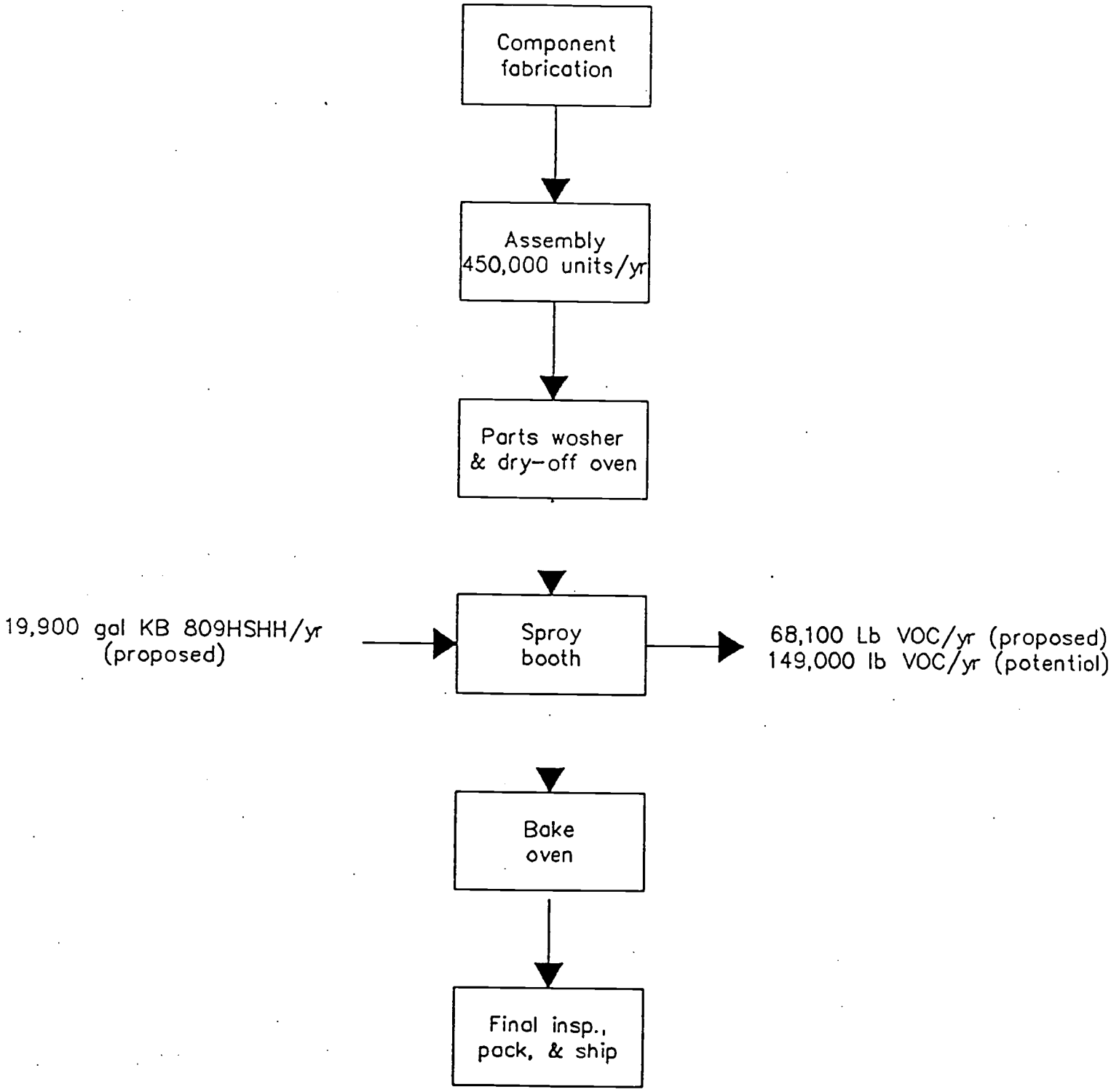
Company Name Arvin Industries, Franklin Plant

This permit application must include a simple flow diagram of your operation from raw materials input to the finished products. Show points of emission including stacks. Show location of air pollution control equipment, the process it controls, and removal efficiency. State the maximum hourly capacity of each step of the operation.

*Please see attached sheet.

Process Flow Diagram

Arvin NAA
Franklin Plant
January 6, 1994



STATE OF INDIANA
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR MANAGEMENT

FORM G

Storage and Handling of Bulk Material

Not Applicable xxx

Company Name Arvin Industries, Inc., Franklin Plant

Material Handled or Stored	Method of Handling	Silo, Bin or Pile	Storage Capacity (Tons)	Maximum Throughput (Tons/Yr)	(Lb/Hr)

Dust Control Methods

Process

Type of Control

Efficiency

FORM Q

Indiana Department of Environmental Management
Office of Air Management

PARTICULATE CONTROL DEVICES

GENERAL INFORMATION

Emission point identification (complete a separate page for each device) Spray booth exhaust

Percent of Particulate Matter less than 10 microns at the outlet Not known %

Grain loading per actual cubic foot of outlet air .01, Average gas Temperature Ambient °F

Design percentage collection efficiency 90 % (1- Weight Leaving) X100
(Weight Entering)

SPECIFIC COLLECTOR INFORMATION

A. CYCLONE

Number of tubes_____, Tube diameter _____in.

B. BAGHOUSE

Bag material_____

Total filter area_____ft^2, Air to cloth ratio_____$acfm/ft^2$

Pressure drop across baghouse_____inches of water

Method of bag cleaning (ie. shaking, jetpulse etc...)_____

C. ELECTROSTATIC PRECIPITATOR (ESP)

Type of ESP: Wet_____, Dry_____, Hot Side_____, Cold Side_____

Face velocity across the plates_____ft/sec, Total face surface area_____ft^2

Number of fields along flow path_____, Gas conditioning agent_____

Delay time between starting of system and ESP unit operation_____

Why?_____

D. WET COLLECTORS (Scrubber Type_____)

Pressure drop across scrubber_____inches of water, Flow Rate_____gpm

Scrubbing liquor_____, Liquid to air ratio_____$gpm/10^3acfm$

Is there a demister following the scrubber?_____

Settling pond: volume_____ft^3, Depth_____ft, Width_____ft, Length_____ft,

Diameter (if circular)_____ft

Revised 8/11/88

STATE OF INDIANA
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR MANAGEMENT

SURFACE COATING AND ACCESSORY SOLVENTS

Company Name: Arvin Industries, Inc. Franklin Plant

1 Material (Coatings, Solvents, Etc.)	2 Identification Number	3 Material Density Lb / Gal	4 Weight % Volatiles (Water and Organics)	5 Weight % Water	6 Volume % Water	7 Volume % Non-volatiles (Solids)	8 Gallons of Material* Required for One Production Unit Gal / Production Unit	9 Maximum Number of Production Units per Hour	10 Actual** Usage Gal/Yr	11 Process or Booth I. D.
Coatings	KB809HSHH	11.7	.293	0	0	52	.043	111		Binks

* If different types or sizes of units are coated in the same paint booth with the same coating, this amount should be based on the production unit requiring the most gallons per hour. Gallons per hour = Column 8 x Column 9. If different coatings are used, they must be listed as a separate material.

** Complete this column for operation permit renewals only.

Attach a Material Safety Data Sheet (MSDS) for each material listed. DO NOT SEND THE ENTIRE MSDS. The required sections are: Section I (Product Identification), Section II (Composition Information), and Section III (Physical Property Information).

Density, Weight % Volatiles, and Weight % Water are determined by methods listed in 326 IAC 8-1-4

Revised 7-16-91

Form W-1

Form W-2

STATE OF INDIANA
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR MANAGEMENT

SURFACE COATING AND ACCESSORY SOLVENTS

Company Name Arvin Industries Inc., Franklin Plant

Process or Booth Identification (1)	Cadillac line BINKS			
Application Method (2)	Spray			
If sprayed Specify type (3)	HVLP			
Type of Overspray controls (4)	Dry filter			
Control Efficiency	90%			
Type of Hydrocarbon controls (5)	NONE			
Control Efficiency	N/A			
Stack Height (feet above ground)	29 feet			
Stack Diameter (inches)	30 inches			
Exhaust flow Rate (acfm)	30,000 CFM			
Exhaust Discharge Temperature °F	Ambient			

Operating Schedule: 16 hours/day 5 days/week 50 weeks/year

1. Use identifiers from forms B and F.

2. Method of application refers to dipping, spraying, rollcoating, brushing, flowcoating, or other.

3. Types of spray coating include: air atomization, airless, electrostatic disc, electrostactic airless, electrostatic air atomized, low pressure air atomization, low pressure-high volume, or other.

4. Overspray controls include: dry and wet filters, baffles, waterwash, or other.

5. Hydrocarbon controls include: catalytic or direct flame incineration, solvent recovery, carbon adsorption, or other.

Revised 8-23-88

FORM Y1
7-29-91

STATE OF INDIANA
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR MANAGEMENT

Air Toxic Pollutants

Company Name Arvin Industries, Inc.

Location Franklin Plant

Place an "X" beside each compound listed on forms Y1 through Y4 that will be emitted into the air from the equipment covered in this application. Attach Sections I, II, and III (only) of Material Safety Data Sheets (MSDS) for each toxic containing material. List all emission points (as identified on the site plot plan) for each compound. Include stack parameters for each listed air toxic emission point on the appropriate form.

X	CAS NUMBER	CHEMICAL NAME	EMISSION POINTS	MAXIMUM EMISSION RATE (POUNDS/HR)
___	00075070	Acetaldehyde		
___	00060355	Acetamide		
___	00075058	Acetonitrile		
___	00098862	Acetophenone		
___	00053963	2-Acetylaminofluorine		
___	00107028	Acrolein		
___	00079061	Acrylamide		
___	00079107	Acrylic Acid		
___	00107131	Acrylonitrile		
___	00107051	Allyl chloride		
___	00092671	4-Aminodiphenyl		
___	00062533	Aniline		
___	29191524	o-Anisidine		
___	01332214	Asbestos		
___	00071432	Benzene (including from gasoline)		
___	00092875	Benzidine		
___	00098077	Benzotrichloride		
___	00100447	Benzyl chloride		
___	00092524	Biphenyl		
___	00117817	Bis (2-ethylhexyl) phthalate		
___	00542881	Bis(chloromethyl)ether		
___	00075252	Bromoform		
___	00106990	1,3-Butadiene		
___	00156627	Calcium cyanamide		
___	00105602	Caprolactam		
___	00133062	Captan		
___	00063252	Carbaryl		
___	00075150	Carbon disulfide		
___	00056235	Carbon tetrachloride		
___	00463581	Carbonyl sulfide		
___	00120809	Catechol (1,2-dihydroxylbenzene)		
___	00133904	Chloramben		
___	00057749	Chlordane		
___	07782505	Chlorine		
___	00079118	Chloroacetic acid		
___	00532274	2-Chloroacetophenone		
___	00108907	Chlorobenzene		
___	00510156	Chlorobenzilate		
___	00067663	Chloroform		
___	00107302	Chloromethyl methyl ether		
___	00126998	Chloroprene		
___	01319773	Cresols/Cresylic acid (isomers and mixtures)		
___	00095487	o-Cresol		
___	00108394	m-Cresol		
___	00106445	p-Cresol		
___	00098828	Cumene		
___	00095757	2,4-D, salts and esters		
___	03547044	DDE		

FORM Y2
7-29-91

STATE OF INDIANA
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR MANAGEMENT

Air Toxic Pollutants

X	CAS NUMBER	CHEMICAL NAME	EMISSION POINTS	MAXIMUM EMISSION RATE (POUNDS/HR)
___	00334883	Diazomethane	___	___
___	00132649	Dibenzofurans	___	___
___	00096128	1,2-Dibromo-3-chloropropane	___	___
___	00084742	Dibutylphthalate	___	___
___	00106467	1,4-Dichlorobenzene (p)	___	___
___	00091941	3,3-Dichlorobenzidene	___	___
___	00111444	Dichloroethyl ether (Bis (2-chloroethyl)ether)	___	___
___	00542756	1,3-Dichloropropene	___	___
___	00062737	Dichlorvos (DDVP)	___	___
___	00111422	Diethanolamine	___	___
___	00121697	N,N-Diethyl aniline (N,N-Dimethylaniline)	___	___
___	00064675	Diethyl sulfate	___	___
___	00119904	3,3'-Dimethoxybenzidine	___	___
___	00060117	Dimethyl aminoazobenzene	___	___
___	00119937	3,3'-Dimethyl benzidine	___	___
___	00079447	Dimethyl carbamoyl chloride	___	___
___	00068122	Dimethyl formamide	___	___
___	00057147	1,1-Dimethyl hydrazine	___	___
___	00131113	Dimethyl phthalate	___	___
___	00077781	Dimethyl Sulfate	___	___
___	00534521	4,6-Dinitro-o-cresol, and salts	___	___
___	00051285	2,4-Dinitrophenol	___	___
___	00121142	2,4-Dinitrotoluene	___	___
___	00123911	1,4-Dioxane (1,4-Diethyleneoxide)	___	___
___	00122667	1,2-Diphenylhydrazine	___	___
___	00106898	Epichlorohydrine (1-Chloro-2,3-epoxypropane)	___	___
___	00106887	1,2-Epoxybutane	___	___
___	00140885	Ethyl acrylate	___	___
___	00100414	Ethyl benzene	___	___
___	00051796	Ethyl carbamate (Urethane)	___	___
___	00075003	Ethyl chloride (Chloroethane)	___	___
___	00106934	Ethylene dibromide (Dibromoethane)	___	___
___	00107062	Ethylene dichloride (1,2-Dichloroethane)	___	___
___	00107211	Ethylene Glycol	___	___
___	00151564	Ethylene imine (Aziridine)	___	___
___	00075218	Ethylene Oxide	___	___
___	00096457	Ethylene thiourea	___	___
___	00075343	Ethylidene dichloride (1,1-Dichloroethane)	___	___
___	00050000	Formaldehyde	___	___
___	00076448	Heptachlor	___	___
___	00118741	Hexachlorobenzene	___	___
___	00087683	Hexachorobutadiene	___	___
___	00077474	Hexachlorocyclopentadiene	___	___
___	00067721	Hexachloroethane	___	___
___	00822060	Hexamethylene-1,6-diisocyanate	___	___
___	00680319	Hexamethylphosphoramide	___	___
___	00110543	Hexane	___	___
___	00302012	Hydrazine	___	___
___	07647010	Hydrochloric acid	___	___
___	07664393	Hydrogen fluoride (Hydrofluoric acid)	___	___
___	07788064	Hydrogen sulfide	___	___
___	00123319	Hydroquinone	___	___
___	00078591	Isophorone	___	___
___	00058899	Lindane (all isomers)	___	___
___	00108316	Maleic anhydride	___	___
___	00067561	Methanol	___	___
___	00072435	Methoxychlor	___	___

FORM Y3
7-29-91

STATE OF INDIANA
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR MANAGEMENT

Air Toxic Pollutants

X	CAS NUMBER	CHEMICAL NAME	EMISSION POINTS	MAXIMUM EMISSION RATE (POUNDS/HR)
___	00074839	Methyl Bromide (Bromomethane)	___	___
___	00074873	Methyl chloride (Chloromethane)	___	___
___	00071556	Methyl Chloroform (1,1,1-Trichloroethane)	___	___
___	00078933	Methyl ethyl ketone (2-Butanone)	___	___
___	00060344	Methyl hydrazine	___	___
___	00074884	Methyl iodide (Iodomethane)	___	___
___	00108101	Methyl isobutyl ketone (Hexone)	___	___
___	00624839	Methyl isocyanate	___	___
___	00080626	Methyl methacrylate	___	___
___	01634044	Methyl tert butyl ether	___	___
___	00101144	4,4-Methylene bis(2-chloroaniline)	___	___
___	00075092	Methylene chloride (Dichloromethane)	___	___
___	00101688	Methylene diphenyl diisocyanate (MDI)	___	___
___	00101779	4,4'-Methylenedianiline	___	___
___	00091203	Naphthalene	___	___
___	00098953	Nitrobenzene	___	___
___	00092933	4-Nitrobiphenyl	___	___
___	00100027	4-Nitrophenol	___	___
___	00079469	2-Nitropropane	___	___
___	00684935	N-Nitroso-N-methylurea	___	___
___	00062759	N-Nitrosodimethylamine	___	___
___	00059892	N-Nitrosomorpholine	___	___
___	00056382	Parathion	___	___
___	00082688	Pentachloronitrobenzene(Quintobenzene)	___	___
___	00087865	Pentachlorophenol	___	___
___	00108952	Phenol	___	___
___	00106503	p-Phenylenediamine	___	___
___	00075445	Phosgene	___	___
___	07803512	Phosphine	___	___
___	07723140	Phosphorus	___	___
___	00085449	Phthalic anhydride	___	___
___	01336363	Polychlorinated biphenyls (Aroclors)	___	___
___	01120714	1,3-Propane sultone	___	___
___	00057578	beta-Propiolactone	___	___
___	00123386	Propionaldehyde	___	___
___	00114261	Propoxur (Baygon)	___	___
___	00078875	Propylene dichloride (1,2-Dichloropropane)	___	___
___	00075569	Propylene Oxide	___	___
___	00075558	1,2-Propylenimine (2-Methyl aziridine)	___	___
___	00091225	Quinoline	___	___
___	00106514	Quinone	___	___
___	00100425	Styrene	___	___
___	00096093	Styrene oxide	___	___
___	01746016	2,3,7,8-Tetrachlorodibenzo -p-dioxin	___	___
___	00079345	1,1,2,2-Tetrachloroethane	___	___
___	00127184	Tetrachloroethylene (Perchloroethylene)	___	___
___	07550450	Titanium tetrachloride	___	___
___	00108883	Toluene	___	___
___	00095807	2,4-Toluene diamine	___	___
___	00584849	2,4-Toluene diisocyanate	___	___
___	00095534	o-Toluidine	___	___
___	08001352	Toxaphene (chlorinated camphene)	___	___
___	00120821	1,2,4-Trichlorobenzene	___	___
___	00079005	1,1,2-Trichloroethane	___	___
___	00079016	Trichloroethylene	___	___
___	00095954	2,4,5-Trichlorophenol	___	___

FORM Y4
7-29-91

STATE OF INDIANA
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR MANAGEMENT

Air Toxic Pollutants

X	CAS NUMBER	CHEMICAL NAME	EMISSION POINTS	MAXIMUM EMISSION RATE (POUNDS/HR)
___	00088062	2,4,6-Trichlorophenol		
___	00121448	Triethylamine		
___	01582098	Trifluralin		
___	00540841	2,2,4-Trimethylpentane		
___	00108054	Vinyl acetate		
___	00593602	Vinyl bromide		
___	00075014	Vinyl Chloride		
___	00075354	Vinylidene chloride (1,1-Dichloroethylene)		
XX	01330207	Xylenes (isomers and mixture)	Booth	12.5
___	00095476	o-Xylenes		
___	00108383	m-Xylenes		
___	00106423	p-Xylenes		
___		Antimony Compounds		
___		Arsenic Compounds (inorganic including arsine)		
___		Beryllium Compounds		
___		Cadmium Compounds		
___		Chromium Compounds		
___		Cobalt Compounds		
___		Coke Oven Emissions		
___		Cyanide Compounds[1]		
XX		Glycol ethers[2]	Booth	2.0
___		Lead Compounds		
___		Manganese Compounds		
___		Mercury Compounds		
___		Mineral Fibers[3]		
___		Nickel Compounds		
___		Polycyclic Organic Matter[4]		
___		Radionuclides (Including Radon)[5]		
___		Selenium Compounds		
___		NONE OF THE COMPOUNDS LISTED ON FORMS Y1 THROUGH Y4 WILL BE EMITTED FROM THE EQUIPMENT LISTED IN THIS APPLICATION.		

NOTE: FOR ALL LISTINGS ABOVE WHICH CONTAIN THE WORD "COMPOUND" AND FOR GLYCOL ETHERS THESE LISTINGS ARE DEFINED AS INCLUDING ANY UNIQUE CHEMICAL SUBSTANCE THAT CONTAINS THE NAMED CHEMICAL AS PART OF THAT CHEMICAL'S INFRASTRUCTURE.

1 X'CN where X=H' or any other group where a formal dissociation may occur. For example KCN or $Ca(CN)_2$

2 includes mono- and di- ethers of ethylene glycol, diethylene glycol, and triethylene glycol R-(OCH2CH2)n-OR' where: n= 1, 2, or 3; R= alkyl or aryl groups; and R'= R, H, or groups which, when removed, yield glycol ethers with the structure R-(OCH2CH2)n-OH. Polymers are excluded from the glycol category.

3 includes mineral fiber emissions from facilities manufacturing or processing glass, rock, or slag fibers (or other mineral derived fibers) of average diameter 1 micrometer or less.

4 includes organic compounds with more than one benzene ring, and which have a boiling point greater than or equal to 100 degrees Celsius.

5 a type of atom which spontaneously undergoes radioactive decay.

DO NOT SEND ENTIRE MATERIAL SAFETY DATA SHEETS (MSDS). The required sections are: Section I (Product Identification), Section II (Composition Information), and Section III (Physical Property Information).

MATERIAL SAFETY DATA SHEET FOR KB- 809HSHH

COMPLTES WITH OSHA STANDARD TITLE 29CFR1910.1200

HEALTH 2*
FLAMMABILITY 2
REACTIVITY
PERSONAL PROTECTION

FROM: WABASH PRODUCTS CO., TERRE HAUTE, IN
EMERGENCY TELEPHONE 800-424-9300

TO: ARVIN AUTOMOTIVE
FOR: WABASH PART NUMBER KB- 809HSHH
DESCRIPTION 3.5 VOC BLACK HI HEAT
TO:

MSDS DATE (YYMMDD) 931123
SEQUENCE # 931123999

**** 1. HAZARDOUS INGREDIENTS ****

COMMON NAME / HAZARD TYPE	CAS NUMBER	EXPOSURE LIMITS	PPM	mg/M	LEL %	VAPOR PRES mm Hg @ 20'C
XYLENE FLAMMABLE	NOT SUPPLIED	PEL TLV	100 100		1.00	5.10
(3)POLYSOLVE DB FLAMMABLE	112-34-5	PEL	25		.84	.10
(3)HIGH F. NAPHTHA FLAMMABLE	64742-95-6	TLV	25		.69	NOT SUPPLIED
BUTYL CARBITOL IRRITANT	112-34-5	NOT SUPPLIED			NOT GIVEN	5.00

**** 2. PHYSICAL DATA ****

APPEARANCE IS COLOR BLACK L/ PAINT DENSITY IS 11.7 LBS/GAL
VAPOR DENSITY (X) HEAVIER ( ) LIGHTER THEN AIR
EVAPORATION RATE IS (X) SLOWER ( ) FASTER THAN ETHER
BOILING RANGE FROM 200 TO 500 (DEG F)

**** 3. FIRE AND EXPLOSIVE HAZARD DATA ****

FLASH POINT ('F) CC 80 OSHA CLASS - FLAMMABLE LIQUID - CLASS 1C
UN NUMBER 1993 DOT CLASS - FLAMMABLE LIQUID
LOWER EXPLOSIVE LIMIT (% BY VOLUME IN AIR) - 0.70
EXTINGUISHING MEDIA: Carbon dioxide or Dry Chemicals for small fires.
Foam for large fires.
CAUTION - Closed containers may build explosive pressure from heat.
Vapors are heavier then air and may travel along the ground or may be moved by ventilation and ignited by pilot lights,other flames,sparks heaters,smoking,electric motors,static discharge, or ignition sources at locations distant from material handling point.
NEVER USE WELDING OR CUTTING TOURCH ON OR NEAR DRUM (EVEN EMPTY) because product (or residue) can ignite explosively
SPECIAL FIRE FIGHTING PROCEDURE: cool closed containers with water spray.

HAZARDOUS DECOMPOSITION PRODUCTS: May form toxic materials:, Carbon Dioxide, Carbon Monoxide, Various Hydrocarbons, Etc.

**** 7. SECTION 313 SUPPLIER NOTIFICATION ****

This product contains the following toxic chemicals subject to the reporting requirements of section 313 of the Emergency Planning and Community Right-To-Know Act of 1986 and of 40 CFR 372:

CAS #	CHEMICAL NAME	% BY WEIGHT
NOT SUPPLIED	XYLENE	22.5
68186-91-4	COPPER CHROMITE BLK SPIN	12.6
7727-43-7	BARIUM SULFATE	8.2
112-34-5	(3)POLYSOLVE DB	1.8
64742-95-6	(3)HIGH F. NAPHTHA	3.2
112-34-5	BUTYL CARBITOL	1.8

This information must be included in all MSDSs that are copied and distributed for this material.

**** 8. FIRST AID AND EMERGENCY PROCEDURES ****

INHALATION: Remove to fresh air immediately. If breathing has stopped, give artificial respiration. Keep warm and quiet. Get medical attention immediately.
EYE Flush with large amounts of water, lifting upper and lower lids occasionally. Continue for at least 15 minutes. Get medical attention.
SKIN: Throughly wash exposed area with soap and water. Remove contaminat clothing. Launder contaminated clothing before re-use.
SWALLOWED: Do NOT induce vomiting, Keep person warm, quiet, and get medic attention. Aspiration of material into the lungs due to vomiting can cause chemical pneumonitis which can be fatal.

**** 9. SPECIAL PROTECTION INFORMATION ****

RESPIRATORY PROTECTION: Use self contained breathing apparatus where concentrations may be above TLV limits. Below TLV limits, use a NIOSH approved vapor respirator.
VENTILATION: Local exhaust must be sufficient to keep airborne vapor concer tration below the TLV limit.
PROTECTIVE GLOVES: Chemical resistant gloves.
EYE PROTECTION: Safety glasses with side shields.
OTHER PROTECTIVE EQUIPMENT: Eye bath and safety shower. To prevent repeate or prolonged skin contact, wear impervious clothing and boots.

ARVIN
NORTH AMERICAN
AUTOMOTIVE

February 4, 1994

By Hand Delivery

Ms. Kathy Prosser, Commissioner
Indiana Department of Environmental Management
100 North Senate Avenue
Indianapolis, Indiana 46207

Subject: Interim Construction Permit
Arvin North American Automotive
Franklin, Indiana

Dear Ms. Prosser:

As the owner of an existing air pollution source built and operating at 1001 Hurricane Street, Franklin, Indiana in accordance with 326 IAC 2-1, Arvin Industries, Inc. is petitioning for an interim construction permit under 326 IAC 2-1-3.1. This action is necessary in order to prevent serious financial hardship for Arvin Industries, its employees, and the community. The production line including the proposed coating system is a $3 million investment that will employ 40 people and produce about $20 million in sales annually. Failure to meet the customer's requirement for capability demonstration will mean the loss of jobs, sales, and investment as the product will be left with the present model year supplier.

While the line that includes the proposed paint system will not begin production until July 1994, the customer requires Arvin to demonstrate system capability in advance. In fact, the customer demands that the paint system be ready for production on March 28, 1994. The customer requires such a long lead time in order to make certain that problems can be resolved before production starts.

Arvin proposes to construct the new source as described in the construction permit application submitted on January 6, 1994 and modified on January 27, 1994, a copy of which is attached. Limits on raw material consumed, fuel combusted, hours of operation, and emission rate in the permit application clearly demonstrate that the proposed source does not qualify as a major PSD source or modification.

The proposed source is not subject to New Source Performance Standards under 40 CFR 60, National Emission Standards for Hazardous Air Pollutants under 40 CFR 61, or National Emission Standards for Hazardous Air Pollutants for Source Categories under 40 CFR 63. The proposed source will be subject to the provisions of 326 IAC 8-2-9, for miscellaneous metal coating operations, and will be limited to 0.42 kg VOC/l coating (3.5 lb VOC/gal coating) at the applicator as this is an extreme performance coating. All solvent sprayed from application during cleanup shall be directed into containers, containers for waste solvent shall be closed except when solvent is being sprayed, and the waste solvent shall be managed in such a manner as to minimize evaporation.

1531 13th Street, Box Number 3002, Columbus, Indiana 47202 Phone: 812/379-3000 a division of Arvin Industries, Inc.

Arvin Industries, Inc. consents to federal enforcement of the proposed interim construction permit.

I certify that I am the individual in charge of operations at the facility described above and that the information in this petition is true and complete to the best of my knowledge and belief. I am aware that there are substantial penalties, including fines and jail terms, for intentionally submitting false or misleading information.

James Stegemiller
Plant Manager

Attachments
1. Affidavit
2. Copy of January 6, 1994 construction permit application, as modified

Affidavit
for Interim Construction Permit

I, James Stegemiller, Plant Manager of the Arvin Industries, Inc. facility at 1001 Hurricane St., Franklin, Indiana, 46131, hereby state the following as required by 326 IAC 2-1-3.1(b)(2)(E):

Arvin Industries, Inc. will proceed with the project described in the February 4, 1994 interim construction permit petition at its own risk, including but not limited to:

1. Financial risk,

2. The risk that the commissioner will require additional or different control technologies in order for a final construction permit or registration to be approved under applicable law, and

3. The risk that the commissioner might deny issuance of the final construction permit.

James Stegemiller
James Stegemiller
Plant Manager

Subscribed and sworn or affirmed to before me this 4th day of February, 1994. IN TESTIMONY WHEREOF, I, Mark J. Adolay, have hereunto set my hand and official seal.

Mark J. Adolay, a Notary Public for the County of Marion , State of Indiana.

My commission expires April 14, 1994

To: Jim Bell
Jim Denk
John McBeath
Jim McNew
✓Amy Paszek

From: Mark Adolay

Subject: Paint Permit

Doug Logan called me today to notify me that he had just talked with Scott Fulton of the Indiana Department of Environmental Management. Mr. Fulton told Doug that he had calculated our projected emissions from our new Cadillac booth added to our emissions from Mazda. Fulton said that the combined total emissions would not require a "paint booth permit". He said he planned on sending us a "registration" probably today. This means that as soon as we get the "building permit" issue settled, we can start painting samples. The building permit issue with the local Franklin officials and state fire and building department is more of a "build to code" requirement and should not be a problem. Our paint booth builders have guaranteed us that the booth is "to code".

However, there is a lesson to learned here. If we decide to add another paint booth, our total plant emissions will most likely require a "paint booth permit". Therefore, we should inform our customer of the delay time involved at the beginning of the project. The Typical delay time for the permit to be approved by IDEM from "submission to permit" is six to eight months, and, of course, we must have all the information (type of paint, amount of paint, method of painting, number of parts, line layout, paint booth dimensions, etc.) before we can submit.

Mark

3-3-94

cc: Dick Hendricks
Doug Logan
Jim Stegemiller

ARVIN
NORTH AMERICAN AUTOMOTIVE

February 11, 1994

By Certified Mail

Mr. Scott Fulton
Plan Review and Permit Section
Office of Air Management
Indiana Department of Environmental Management
100 North Senate Avenue
Indianapolis, Indiana 46207

Subject: Construction Permit
Modification
Arvin North American Automotive
Franklin, Indiana

Dear Mr. Fulton:

As I explained in our telephone conversation this morning, we have found 2 factors that call for another modification of the construction permit and the interim construction permit for the Arvin Industries, Inc. Franklin plant. We have found that the amount of paint required per production unit was overstated. We have also found that electrostatic spray guns are suitable and highly desirable for the proposed installation.

The net result of these changes is a very substantial reduction in potential emissions. The initial paint usage estimate in our quotation to the customer was more than double what we now anticipate. The change to electrostatic application is expected to halve the emissions again because of the improved transfer efficiency. With the changes, the potential emissions from the new source drop to 31,000 lb. of VOC per year. Since the existing registered coating line (CP 081-2328, ID 081-00020) had emissions last year of 15,000 lb. of VOC, a permit is clearly still required.

Please contact me at (812) 379-3575 if there are any questions or problems about this matter.

Sincerely,

Douglas A. Logan, P.E.
Director of Environmental Affairs and Safety

1531 13th Street, Box Number 3002, Columbus, Indiana 47202 Phone: 812/379-3000 a division of Arvin Industries, Inc.

BACT Analysis

Arvin North American Automotive
Franklin, Indiana

Revised
11 February 1994

Economic analysis of control options for the proposed source is based on potential VOC emissions estimated at 62,000 pounds/year. The estimate is based on the use of a high solids paint and HVLP spray guns with a transfer efficiency of 30%. Cost estimates and analysis are based on the OAQPS Control Coast Manual (4th ed., January 1990). Equipment costs were scaled from 3rd quarter 1989 values to 3rd quarter 1993 (most recent available) using the Marshall & Swift Equipment Cost Index published monthly in **Chemical Engineering** magazine.

Only electrostatic application and thermal oxidation systems were studied. Activated carbon adsorption is not feasible because of the possibility of fouling the bed with entrained particulate matter. Catalytic incineration is not feasible because of the risk that the catalyst bed might be poisoned by the silicone resin used in the coating.

Utility cost estimates neglect the heating value of VOC pollutants in the spray booth exhaust. For this application, the VOC concentration is considered too low to contribute significantly to the heating value.

Electrostatic application (option 4) is clearly a cost effective control technology for the proposed installation and Arvin intends to purchase the necessary equipment. Options 1, 2, and 3 are clearly not cost effective. Option 5, a combination of control technologies, is not justified on the basis of the incremental cost.

Control Option #1 - Regenerative Thermal Oxidation

Capital Cost

30,000 SCFM regenerative thermal oxidation unit, 95% recovery sized per Equation 3.28, OAQPS Control Cost Manual, 4th Ed.	$612,000
Instrumentation, taxes, and freight @ 18%	110,000
Purchased Equipment Cost (PEC)	722,000
Installation direct costs @ 30% PEC	217,000
Installation indirect costs @ 31% PEC	224,000
Total Capital Cost (TCC)	$1,163,000

Annual Cost

1. Labor	
a. operator (1/2 hr/shft, 1,095 shft/yr @ $12.00/hr)	$7,000
b. supervisor @ 15% 1a	1,100
2. Maintenance	
a. labor (1/2 hr/shft, 1,095 shft/yr @ $14.00/hr)	8,000
b. materials @ 100% 2a	8,000
3. Utilities, per OAQPS Manual	
a. electricity - 175.5 kW, 8,760 hr/yr @ $0.065/kWh	99,900
b. natural gas - 2.7 MCF/hr, 8,760 hr/yr @ $4.00/MCF	94,600
4. Overhead @ 60% (1a+1b+2a)	9,700
5. Administration, property taxes, and insurance @ 4% TCC	46,500
6. Capital recovery @ 10 yr. and 10% (0.1628)	189,000
Total Annual Cost	$464,000
VOC reduction (62,000 lb. generated @ 98% removal)	60,800
Annual cost per pound of VOC removed	$7.63

Control Option #2 - Regenerative Thermal Oxidation With Recirculating Air

Capital Cost

Single 10,000 SCFM regenerative thermal oxidation unit, 95% recovery sized per Equation 3.28, OAQPS Control Cost Manual, 4th Ed.	$362,000
Additional ductwork for recirculating 67% of spray booth air	80,000
Instrumentation, taxes, and freight @ 18%	65,000
Purchased Equipment Cost (PEC)	507,000
Installation direct costs @ 30% PEC	152,000
Installation indirect costs @ 31% PEC	157,000
Total Capital Cost (TCC)	$816,000

Annual Cost

1. Labor	
a. operator (1/2 hr/shft, 1,095 shft/yr @ $12.00/hr)	$7,000
b. supervisor @ 15% 1a	1,100
2. Maintenance	
a. labor (1/2 hr/shft, 1,095 shft/yr @ $14.00/hr)	8,000
b. materials @ 100% 2a	8,000
3. Utilities, per OAQPS Manual	
a. electricity - 58.5 kW, 8,760 hr/yr @ $0.065/kWh	33,300
b. natural gas - 0.9 MCF/hr, 8,760 hr/yr @ $4.00/MCF	31,500
4. Overhead @ 60% (1a+1b+2a)	9,700
5. Administration, property taxes, and insurance @ 4% TCC	32,600
6. Capital recovery @ 10 yr. and 10% (0.1628)	133,000
Total Annual Cost	$264,000
VOC reduction (62,000 lb. generated @ 98% removal)	60,800
Annual cost per pound of VOC removed	$4.34

Control Option #3 - Recuperative Thermal Oxidation With Recirculating Air

Capital Cost

10,000 SCFM recuperative thermal oxidation unit, 70% recovery sized per Equation 3.27, OAQPS Control Cost Manual, 4th Ed.	$230,000
Additional ductwork for recirculating 67% of spray booth air	80,000
Instrumentation, taxes, and freight @ 18%	41,000
Purchased Equipment Cost (PEC)	351,000
Installation direct costs @ 30% PEC	105,000
Installation indirect costs @ 31% PEC	109,000
Total Capital Cost (TCC)	$565,000

Annual Cost

1. Labor	
a. operator (1/2 hr/shft, 1,095 shft/yr @ $12.00/hr)	$7,000
b. supervisor @ 15% 1a	1,100
2. Maintenance	
a. labor (1/2 hr/shft, 1,095 shft/yr @ $14.00/hr)	8,000
b. materials @ 100% 2a	8,000
3. Utilities, per OAQPS Manual	
a. electricity - 37.05 kW, 8,760 hr/yr @ $0.065/kWh	21,100
b. natural gas - 9 MCF/hr, 8,760 hr/yr @ $4.00/MCF	315,400
4. Overhead @ 60% (1a+1b+2a)	9,700
5. Administration, property taxes, and insurance @ 4% TCC	22,600
6. Capital recovery @ 10 yr. and 10% (0.1628)	92,000
Total Annual Cost	$485,000
VOC reduction (62,000 lb. generated @ 98% removal)	60,800
Annual cost per pound of VOC removed	$7.98

Control Option #4 - Electrostatic Application

Capital Cost

2 - Manual electrostatic spray guns	$10,000
Instrumentation, taxes, and freight @ 18%	2,000
Purchased Equipment Cost (PEC)	12,000
Installation direct costs @ 30% PEC	4,000
Installation indirect costs @ 31% PEC	4,000
Total Capital Cost (TCC)	$20,000

Annual Cost

1. Maintenance	
a. labor (1 hr/day, 365 days/yr @ $14.00/hr)	5,110
b. materials @ 100% 2a	5,110
3. Utilities	
a. electricity - not determined	
4. Overhead @ 60% (1a+1b+2a)	3,100
5. Administration, property taxes, and insurance @ 4% TCC	800
6. Capital recovery @ 10 yr. and 10% (0.1628)	3,000
Total Annual Cost	$17,000
Paint cost reduction (4,040 gal/yr @ $54.00/gal)	($218,000)
VOC reduction (62,000 lb. generated @ 30% removal)	31,000
Annual cost per pound of VOC removed	($6.48)

Control Option #5 - Incremental Cost of Regenerative Thermal Oxidation with Recirculating Air, Combined with Electrostatic Application

Capital Cost

Single 10,000 SCFM regenerative thermal oxidation unit, 95% recovery sized per Equation 3.28, OAQPS Control Cost Manual, 4th Ed.	$362,000
Additional ductwork for recirculating 67% of spray booth air	80,000
Instrumentation, taxes, and freight @ 18%	65,000
Purchased Equipment Cost (PEC)	507,000
Installation direct costs @ 30% PEC	152,000
Installation indirect costs @ 31% PEC	157,000
Total Capital Cost (TCC)	$816,000

Annual Cost

1. Labor	
a. operator (1/2 hr/shft, 1,095 shft/yr @ $12.00/hr)	$7,000
b. supervisor @ 15% 1a	1,100
2. Maintenance	
a. labor (1/2 hr/shft, 1,095 shft/yr @ $14.00/hr)	8,000
b. materials @ 100% 2a	8,000
3. Utilities, per OAQPS Manual	
a. electricity - 58.5 kW, 8,760 hr/yr @ $0.065/kWh	33,300
b. natural gas - 0.9 MCF/hr, 8,760 hr/yr @ $4.00/MCF	31,500
4. Overhead @ 60% (1a+1b+2a)	9,700
5. Administration, property taxes, and insurance @ 4% TCC	32,600
6. Capital recovery @ 10 yr. and 10% (0.1628)	133,000
Total Annual Cost	$264,000
VOC reduction (31,000 lb. generated @ 98% removal)	30,400
Annual cost per pound of VOC removed	$8.68

STATE OF INDIANA
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR MANAGEMENT

FORM E

Process Information

Not Applicable _____

Company Name ARVIN INDUSTRIES INC, FRANKLIN IN - REVISED 11 FEBRUARY 1994

Products Produced AUTOMOTIVE EXHAUST SYSTEMS

Raw Material Rate (use an additional sheet if needed)

TYPE MATERIAL	RATE (LB/HR)
WABASH KB 318 HS HH	12.46
EXHAUST ASSEMBLIES	4508

Finished Product

Pounds/Hour Maximum 4520 Normal _____

Process and Control Equipment (Use an additional sheet if needed)
Process Identification:

1 BINKS SPRAY BOOTH WITH PARTS WASHER, DRY OFF OVEN, AND BAKE OVEN

Type of Control DRY FILTER
Efficiency 90%
For Dry Collectors, Tons/year Collected N/A
STACK DATA
Stack Identification NONE

Height (ft. above ground) 29

Diameter (ft. inside) 2.83

Gas Discharge Temperature (Deg F) AMBIENT

Gas Flow Rate (acfm) 30,000

Operation Schedule

Hours/Day 16
Days/Week 5
Weeks/Year 50

STATE OF INDIANA
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR MANAGEMENT

FORM F

Flow Diagram

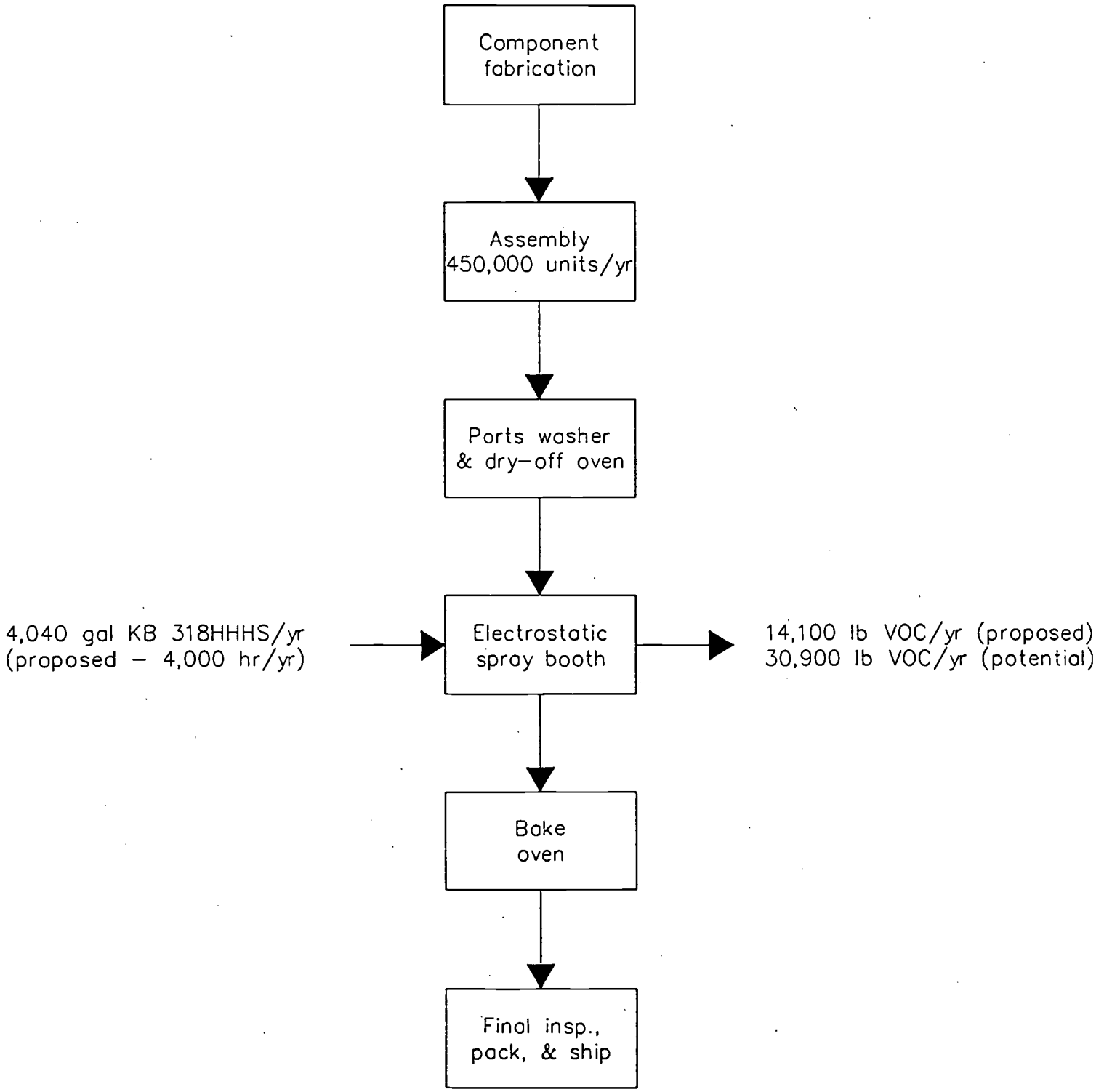
Not Applicable _____

Company Name ARVIN INDUSTRIES INC FRANKLIN PLANT - REVISED 11 FEB 94

This permit application must include a simple flow diagram of your operation from raw materials input to the finished products. Show points of emission including stacks. Show location of air pollution control equipment, the process it controls, and removal efficiency. State the maximum hourly capacity of each step of the operation.

Process Flow Diagram

Arvin NAA
Franklin Plant
Revision
11 February 1994



STATE OF INDIANA
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR MANAGEMENT

SURFACE COATING AND ACCESSORY SOLVENTS

Company Name ARVIN INDUSTRIES INC FRANKLIN PLANT REVISED 11 FEBRUARY 1994

1 Material (Coatings, Solvents, Etc.)	2 Identification Number	3 Material Density Lb / Gal	4 Weight % Volatiles (Water and Organics)	5 Weight % Water	6 Volume % Water	7 Volume % Non-volatiles (Solids)	8 Gallons of Material* Required for One Production Unit Gal / Production Unit	9 Maximum Number of Production Units per Hour	10 Actual** Usage. Gal/Yr	11 Process or Booth I. D.
COATING	KB 318 HHHS	12.35	28	0	0	52	0.00909	111		CADILLAC LINE BINKS

* If different types or sizes of units are coated in the same paint booth with the same coating, this amount should be based on the production unit requiring the most gallons per hour. Gallons per hour = Column 8 x Column 9. If different coatings are used, they must be listed as a separate material.

** Complete this column for operation permit renewals only.

Attach a Material Safety Data Sheet (MSDS) for each material listed. DO NOT SEND THE ENTIRE MSDS. The required sections are: Section I (Product Identification), Section II (Composition Information), and Section III (Physical Property Information).

Density, Weight % Volatiles, and Weight % Water are determined by methods listed in 326 IAC 8-1-4

Form W-1

Revised 7-16-91

Form W-2

STATE OF INDIANA
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR MANAGEMENT

SURFACE COATING AND ACCESSORY SOLVENTS

Company Name ARVIN INDUSTRIES INC FRANKLIN PLANT REVISED 11 FEBRUARY 1994

Process or Booth Identification (1)	CADILLAC LINE BINKS			
Application Method (2)	SPRAY			
If sprayed Specify type (3)	ELECTROSTATIC			
Type of Overspray controls (4)	DRY FILTER			
Control Efficiency	90 %			
Type of Hydrocarbon controls (5)	NONE			
Control Efficiency	N/A			
Stack Height (feet above ground)	29			
Stack Diameter (inches)	30			
Exhaust flow Rate (acfm)	30,000			
Exhaust Discharge Temperature °F	AMBIENT			

Operating Schedule: 16 hours/day 5 days/week 50 weeks/year

1. Use identifiers from forms B and F.

2. Method of application refers to dipping, spraying, rollcoating, brushing, flowcoating, or other.

3. Types of spray coating include: air atomization, airless, electrostatic disc, electrostactic airless, electrostatic air atomized, low pressure air atomization, low pressure-high volume, or other.

4. Overspray controls include: dry and wet filters, baffles, waterwash, or other.

5. Hydrocarbon controls include: catalytic or direct flame incineration, solvent recovery, carbon adsorption, or other.

Revised 8-23-88

ARVIN INDUSTRIES INC. FRANKLIN PLANT
REVISED 11 FEB 94

FORM Y4
7-29-91

STATE OF INDIANA
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR MANAGEMENT

Air Toxic Pollutants

X	CAS NUMBER	CHEMICAL NAME	EMISSION POINTS	MAXIMUM EMISSION RATE (POUNDS/HR)
	00088062	2,4,6-Trichlorophenol		
	00121448	Triethylamine		
	01582098	Trifluralin		
	00540841	2,2,4-Trimethylpentane		
	00108054	Vinyl acetate		
	00593602	Vinyl bromide		
	00075014	Vinyl Chloride		
	00075354	Vinylidene chloride (1,1-Dichloroethylene)		
X	01330207	Xylenes (isomers and mixture)	BOOTH	1.6
	00095476	o-Xylenes		
	00108383	m-Xylenes		
	00106423	p-Xylenes		
		Antimony Compounds		
		Arsenic Compounds (inorganic including arsine)		
		Beryllium Compounds		
		Cadmium Compounds		
		Chromium Compounds		
		Cobalt Compounds		
		Coke Oven Emissions		
		Cyanide Compounds[1]		
		Glycol ethers[2]	BOOTH	0.7
		Lead Compounds		
		Manganese Compounds		
		Mercury Compounds		
		Mineral Fibers[3]		
		Nickel Compounds		
		Polycyclic Organic Matter[4]		
		Radionuclides (Including Radon)[5]		
		Selenium Compounds		
		NONE OF THE COMPOUNDS LISTED ON FORMS Y1 THROUGH Y4 WILL BE EMITTED FROM THE EQUIPMENT LISTED IN THIS APPLICATION.		

NOTE: FOR ALL LISTINGS ABOVE WHICH CONTAIN THE WORD "COMPOUND" AND FOR GLYCOL ETHERS THESE LISTINGS ARE DEFINED AS INCLUDING ANY UNIQUE CHEMICAL SUBSTANCE THAT CONTAINS THE NAMED CHEMICAL AS PART OF THAT CHEMICAL'S INFRASTRUCTURE.

1 X'CN where X=H' or any other group where a formal dissociation may occur. For example KCN or $Ca(CN)_2$

2 includes mono- and di- ethers of ethylene glycol, diethylene glycol, and triethylene glycol R-(OCH2CH2)n-OR' where: n= 1, 2, or 3; R= alkyl or aryl groups; and R'= R, H, or groups which, when removed, yield glycol ethers with the structure R-(OCH2CH2)n-OH. Polymers are excluded from the glycol category.

3 includes mineral fiber emissions from facilities manufacturing or processing glass, rock, or slag fibers (or other mineral derived fibers) of average diameter 1 micrometer or less.

4 includes organic compounds with more than one benzene ring, and which have a boiling point greater than or equal to 100 degrees Celsius.

5 a type of atom which spontaneously undergoes radioactive decay.

DO NOT SEND ENTIRE MATERIAL SAFETY DATA SHEETS (MSDS). The required sections are: Section I (Product Identification), Section II (Composition Information), and Section III (Physical Property Information).

Compliance Branch 089-4910 Commonly Known VRS-NWO

PACIFIC ENVIRONMENTAL SE

Post-it® Fax Note 7671	Date 10/25	# of pages ▶ 9
To Yogesh PARIKH	From ANDY WEISMAN	
Co./Dept.	Co. PES	
Phone #	Phone # 513 398-2556	
Fax # 317 232 6749	Fax #	

4700 Duke Drive, Suite 150
Mason, Ohio 45040
(513) 398-2556
FAX (513) 398-3342

RECEIVED

OCT 26 1995

STATE OF INDIANA
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR MANAGEMENT

October 25, 1995
5013.002

Mr. Yogesh Parikh
Indiana Department of Environmental Management
100 N. Senate Avenue
Indianapolis, IN 46206

RE: Arvin NAA Operating Permit Application

Dear Mr. Parikh:

This letter is in response to your request for additional information concerning the operating permit application for the Cadillac paint line at the Arvin North American Automotive (Arvin) facility in Franklin, Indiana. Arvin is requesting an air emissions permit which allows them to emit 99 tons of VOC emissions per year from the Cadillac paint line. The Cadillac paint line was put into operation in July 1994, as described in their construction permit application submitted in February, 1994.

The building is 640 feet wide (east to west) and 940 feet long (north to south) in the vicinity of the Cadillac line. The stack nearest to the property boundary is S-2 which is approximately 170 feet from the from the fence line. A revised copy of Form Y from the permit application package is attached to this letter.

There are currently two paint lines in operation at the Arvin, Franklin facility, the Cadillac line and the Mazda line. The Cadillac line generated approximately 4.4 tons of VOC emissions in 1994 and the Mazda paint line generated approximately 4.0 tons of VOC in 1994. The remaining 2.1 tons of VOC emissions at the facility were caused by paint equipment cleaning and fuel combustion. The Mazda line was placed on registration status by IDEM in 1992. A copy of the letter documenting the registration status of the Mazda paint line is attached to this letter. The Mazda line is currently not in use and its future use is uncertain, however there are no plans to use the Mazda line in the foreseeable future.

If you have any additional questions concerning the permit application please call me or Dick Gerstle at (513) 398-2556.

Sincerely,

PACIFIC ENVIRONMENTAL SERVICES, INC.

Andrew W. Weisman

Andrew W. Weisman
Environmental Scientist

c: R. Elliott, Arvin
L. Hinson, Arvin

I:\5013-002\parikh.ltr

State Form 46978(1-95)

STATE OF INDIANA
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR MANAGEMENT

Air Toxic Pollutants

Company Name: ARVIN NORTH AMERICAN AUTOMOTIVE

Location: 1001 N. HURRICANE ST., FRANKLIN, IN 46131

Place an "X" beside each compound listed on forms Y1 through Y5 that will be emitted into the air from the equipment covered in this application, and determine the maximum emission rate for each compound. Attach **Sections I, II, and III (only)** of Material Safety Data Sheets (MSDS) for each toxic containing material. List all emission points (as identified on the site plot plan) for each compound. **Include stack parameters for each listed air toxic emission point on the appropriate form.**

X	CAS NUMBER	CHEMICAL NAME	EMISSION POINTS	MAXIMUM EMISSION RATE (POUNDS/HR) BEFORE CONTROLS
___	00075070	Acetaldehyde		
___	00060355	Acetamide		
___	00075058	Acetonitrile		
___	00098862	Acetophenone		
___	00053963	2-Acetylaminofluorene		
___	00107028	Acrolein		
___	00079061	Acrylamide		
___	00079107	Acrylic Acid		
___	00107131	Acrylonitrile		
___	00107051	Allyl chloride		
___	00092671	4-Aminodiphenyl		
___	00062533	Aniline		
___	00090040	o-Anisidine		
___	01332214	Asbestos		
___	00071432	Benzene (including from gasoline)		
___	00092875	Benzidine		
___	00098077	Benzotrichloride		
___	00100447	Benzyl chloride		
___	00092524	Biphenyl		
___	00117817	Bis (2-ethylhexyl) phthalate (DEHP)		
___	00542881	Bis (chloromethyl) ether		
___	00075252	Bromoform		
___	00106990	1,3-Butadiene		
___	00156627	Calcium cyanamide		
___	00105602	Caprolactam		
___	00133062	Captan		
___	00063252	Carbaryl		
___	00075150	Carbon disulfide		
___	00056235	Carbon tetrachloride		
___	00463581	Carbonyl sulfide		
___	00120809	Catechol (1,2-dihydroxylbenzene)		
___	00133904	Chloramben		
___	00057749	Chlordane		
___	07782505	Chlorine		
___	00079118	Chloroacetic acid		
___	00532274	2-Chloroacetophenone		

State Form 46978(1-95) Air Toxic Pollutants (continued)

___	00108907	Chlorobenzene	_____	_____
___	00510156	Chlorobenzilate	_____	_____
___	00067663	Chloroform	_____	_____
___	00107302	Chloromethyl methyl ether	_____	_____
___	00126998	Chloroprene	_____	_____
___	01319773	Cresols/Cresylic Acid (isomers and mixtures)	_____	_____
___	00095487	o-Cresol	_____	_____
___	00108394	m-Cresol	_____	_____
___	00106445	p-Cresol	_____	_____
___	00098828	Cumene	_____	_____
___	00094757	2,4-D, (2,4-Dichlorophenoxyacetic acid, including salts and esters)	_____	_____
___	00072559	DDE (1,1-Dichloro-2,2-bis(p-chlorophenyl)ethylene	_____	_____
___	00334883	Diazomethane	_____	_____
___	00132649	Dibenzofuran	_____	_____
___	00096128	1,2-Dibromo-3-chloropropane	_____	_____
___	00084742	Dibutylphthalate	_____	_____
___	00106467	1,4-Dichlorobenzene	_____	_____
___	00091941	3,3'-Dichlorobenzidene	_____	_____
___	00111444	Dichloroethyl ether [Bis (2-chloroethyl) ether]	_____	_____
___	00542756	1,3-Dichloropropene	_____	_____
___	00062737	Dichlorvos (DDVP)	_____	_____
___	00111422	Diethanolamine	_____	_____
___	00121697	N,N-Dimethylaniline	_____	_____
___	00064675	Diethyl sulfate	_____	_____
___	00119904	3,3'-Dimethoxybenzidine	_____	_____
___	00060117	Dimethyl aminoazobenzene	_____	_____
___	00119937	3,3'-Dimethylbenzidine	_____	_____
___	00079447	Dimethylcarbamoyl chloride	_____	_____
___	00068122	Dimethylformamide	_____	_____
___	00057147	1,1-Dimethylhydrazine	_____	_____
___	00131113	Dimethyl phthalate	_____	_____
___	00077781	Dimethyl Sulfate	_____	_____
___		4,6-Dinitro-o-cresol, and salts	_____	_____
___	00051285	2,4-Dinitrophenol	_____	_____
___	00121142	2,4-Dinitrotoluene	_____	_____
___	00123911	1,4-Dioxane (1,4-Diethyleneoxide)	_____	_____
___	00122667	1,2-Diphenylhydrazine	_____	_____
___	00106898	Epichlorohydrin (1-Chloro-2,3-epoxypropane)	_____	_____
___	00106887	1,2-Epoxybutane	_____	_____
___	00140885	Ethyl acrylate	_____	_____
___	00100414	Ethylbenzene	_____	_____
___	00051796	Ethyl carbamate (Urethane)	_____	_____
___	00075003	Ethyl chloride (Chloroethane)	_____	_____
___	00106934	Ethylene dibromide (Dibromoethane)	_____	_____
___	00107062	Ethylene dichloride (1,2-Dichloroethane)	_____	_____
___	00107211	Ethylene Glycol	_____	_____
___	00151564	Ethyleneimine (Aziridine)	_____	_____
___	00075218	Ethylene Oxide	_____	_____
___	00096457	Ethylene thiourea	_____	_____
___	00075343	Ethylidene dichloride(1,1-Dichloroethane)	_____	_____
___	00050000	Formaldehyde	_____	_____

State Form 46978(1-95)

Air Toxic Pollutants (continued)

___	00076448	Heptachlor	_____	_____
___	00118741	Hexachlorobenzene	_____	_____
___	00087683	Hexachorobutadiene	_____	_____
___	00058899	1,2,3,4,5,6-Hexachlorocyclohexane (all stereo isomers, including Lindane)	_____	_____
___	00077474	Hexachlorocyclopentadiene	_____	_____
___	00067721	Hexachloroethane	_____	_____
___	00822060	Hexamethylene-1,6-diisocyanate	_____	_____
___	00680319	Hexamethylphosphoramide	_____	_____
___	00110543	Hexane	_____	_____
___	00302012	Hydrazine	_____	_____
___	07647010	Hydrochloric acid [Hydrogen chloride (gas only)]	_____	_____
___	07664393	Hydrogen fluoride (Hydrofluoric acid)	_____	_____
___	00123319	Hydroquinone	_____	_____
___	00078591	Isophorone	_____	_____
___	00108316	Maleic anhydride	_____	_____
___	00067561	Methanol	_____	_____
___	00072435	Methoxychlor	_____	_____
___	00074839	Methyl Bromide (Bromomethane)	_____	_____
___	00074873	Methyl chloride (Chloromethane)	_____	_____
___	00071556	Methyl Chloroform (1,1,1-Trichloroethane)	_____	_____
___	00078933	Methyl ethyl ketone (2-Butanone)	_____	_____
___	00060344	Methylhydrazine	_____	_____
___	00074884	Methyliodide (Iodomethane)	_____	_____
___	00108101	Methyl isobutyl ketone (Hexone)	_____	_____
___	00624839	Methyl isocyanate	_____	_____
___	00080626	Methyl methacrylate	_____	_____
___	01634044	Methyl tert-butyl ether	_____	_____
___	00101144	4,4-Methylenebis(2-chloroaniline)	_____	_____
___	00075092	Methylene chloride (Dichloromethane)	_____	_____
___	00101688	4-4' Methylenediphenyl diisocyanate (MDI)	_____	_____
___	00101779	4,4-Methylenedianiline	_____	_____
___	00091203	Naphthalene	_____	_____
___	00098953	Nitrobenzene	_____	_____
___	00092933	4-Nitrobiphenyl	_____	_____
___	00100027	4-Nitrophenol	_____	_____
___	00079469	2-Nitropropane	_____	_____
___	00684935	N-Nitroso-N-methylurea	_____	_____
___	00062759	N-Nitrosodimethylamine	_____	_____
___	00059892	N-Nitrosomorpholine	_____	_____
___	00056382	Parathion	_____	_____
___	00082688	Pentachloronitrobenzene (Quintobenzene)	_____	_____
___	00087865	Pentachlorophenol	_____	_____
___	00108952	Phenol	_____	_____
___	00106503	p-Phenylenediamine	_____	_____
___	00075445	Phosgene	_____	_____
___	07803512	Phosphine	_____	_____
___	07723140	Phosphorus	_____	_____

State Form 46978(1-95) Air Toxic Pollutants (continued)

___	00085449	Phthalic anhydride		
___	01336363	Polychlorinated biphenyls (Aroclors)		
___	01120714	1,3-Propane sultone		
___	00057578	beta-Propiolactone		
___	00123386	Propionaldehyde		
___	00114261	Propoxur (Baygon)		
___	00078875	Propylene dichloride (1,2-Dichloropropane)		
___	00075569	Propylene Oxide		
___	00075558	1,2-Propylenimine (2-Methyl aziridine)		
___	00091225	Quinoline		
___	00106514	Quinone		
___	00100425	Styrene		
___	00096093	Styrene Oxide		
___	01746016	2,3,7,8-Tetrachlorodibenzo-p-dioxin		
___	00079345	1,1,2,2-Tetrachloroethane		
___	00127184	Tetrachloroethylene (Perchloroethylene)		
___	07550450	Titanium tetrachloride		
_X_	00108883	Toluene	S-2, S-3	0.25
___	00095807	2,4-Toluenediamine		
___	00584849	2,4-Toluene diisocyanate		
___	00095534	o-Toluidine		
___	08001352	Toxaphene (chlorinated camphene)		
___	00120821	1,2,4-Trichlorobenzene		
___	00079005	1,1,2-Trichloroethane		
___	00079016	Trichloroethylene		
___	00095954	2,4,5-Trichlorophenol		
___	00088062	2,4,6-Trichlorophenol		
___	00121448	Triethylamine		
___	01582098	Trifluralin		
___	00540841	2,2,4-Trimethylpentane		
___	00108054	Vinyl acetate		
___	00593602	Vinyl bromide		
___	00075014	Vinyl chloride		
___	00075354	Vinylidene chloride (1,1-Dichloroethylene)		
_X_	01330207	Xylenes (isomers and mixtures)	S-2, S-3	22.1
___	00095476	o-Xylene		
___	00108383	m-Xylene		
___	00106423	p-Xylene		
___		Antimony Compounds		
___		Arsenic Compounds (inorganic including arsine)		
___		Beryllium Compounds		
___		Cadmium Compounds		
_X_		Chromium Compounds	S-2	0.45
___		Cobalt Compounds		
___		Coke Oven Emissions		
___		Cyanide Compounds [1]		
_X_		Glycol Ethers [2]	S-2, S-3	0.25
___		Lead Compounds		
___		Manganese Compounds		
___		Mercury Compounds		
___		Fine Mineral Fibers [3]		
___		Nickel Compounds		
___		Polycyclic Organic Matter [4]		

State Form 46978(1-95) Air Toxic Pollutants (continued)

___	Radionuclides (Including Radon) [5]	_____	_____
___	Selenium Compounds	_____	_____
___	**None of the compounds listed under Air Toxic Pollutants will be emitted from the equipment listed in this application.**		

NOTE: FOR ALL LISTINGS ABOVE WHICH CONTAIN THE WORD "COMPOUNDS" AND FOR GLYCOL ETHERS, THE FOLLOWING APPLIES: UNLESS OTHERWISE SPECIFIED, THESE LISTINGS ARE DEFINED AS INCLUDING ANY UNIQUE CHEMICAL SUBSTANCE THAT CONTAINS THE NAMED CHEMICAL (i.e., antimony, arsenic, etc.) AS PART OF THAT CHEMICAL'S INFRASTRUCTURE.

[1] X'CN where X=H' or any other group where a formal dissociation may occur. For example KCN or $Ca(CN)_2$

[2] includes mono- and di- ethers of ethylene glycol, diethylene glycol, and triethylene glycol $R-(OCH_2CH_2)_n-OR'$ where: n=1, 2, or 3; R= alkyl or aryl groups; and R' = R, H, or groups which, when removed, yield glycol ethers with the structure $R-(OCH_2CH_2)_n-OH$. Polymers are excluded from the glycol category.

[3] includes mineral fiber emissions from facilities manufacturing or processing glass, rock, or slag fibers (or other mineral derived fibers) of average diameter 1 micrometer or less.

[4] limited to, or refers to, products from incomplete combustion of organic compounds (or material) and pyrolysis processes having more than one (1) benzene ring, and which have a boiling point greater than or equal to 100 degrees Celsius.

[5] a type of atom which spontaneously undergoes radioactive decay.

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
We make Indiana a cleaner, healthier place to live

Evan Bayh
Governor
Kathy Prosser
Commissioner

105 South Meridian Street
P.O. Box 6015
Indianapolis, Indiana 46206-6015
Telephone 317-232-8603
Environmental Helpline 1-800-451-6027

November 6, 1992

Certified Mail P 255 206 848

Arvin North American Automotive
1531 13th Street
Columbus, IN 47201

Attention: Douglas A. Logan

Re: Registered Construction
and Operation Status
CP 081-2328
ID 081-00020

Ladies and Gentlemen:

The Arvin North American Automotive application has been reviewed. Based on the data submitted and the provisions in Sections 1 and 2 of 326 IAC 2-1, it has been determined that the following, to be located at 1001 Hurricane Street in Franklin, Indiana is classified as registered:

a. two (2) natural gas fired Kewanee boilers each with a capacity of 3.6 MM Btu/hour,

b. two (2) natural gas fired Cliff boilers each with a capacity of 3.6 MM Btu/hour,

c. a natural gas fired Cleaverbrooks boiler with a capacity of 11.7 MM Btu/hour,

d. a natural gas fired Johnston boiler with a capacity of 2.7 MM Btu/hour,

e. a natural gas fired heater with a capacity of 0.8 MM Btu/hour for washing parts,

f. a natural gas fired bake oven with a capacity of 1.2 MM Btu/hour,

g. two (2) Binks paint booths with dry filters to control particulate matter,

h. a horizontal, 300 gallon capacity diesel fuel storage tank,

i. two (2) horizontal, 300 gallon capacity regular gasoline storage tanks,

j. a horizontal, 300 gallon capacity unleaded gasoline storage tank, and

k. a fixed roof, 58,753 gallon capacity No. 2 fuel oil storage tank.

Pursuant to 40 CFR 60.116b, the owner or operator of the 58,753 gallon storage vessel shall keep readily accessible records showing the dimensions of the storage vessels and an analysis showing the capacity of the storage vessel. These records shall be kept for the life of the source. The owner or operator of each storage vessel with a design capacity greater than or equal to 151 cubic meters storing a liquid with a maximum true vapor pressure that is normally less than 0.745 psia (5.2 kPa) shall notify the Administrator within 30 days when the maximum true vapor pressure of the liquid exceeds 0.745 psia (5.2 kPa).

Miscellaneous Metal Coating Operations, rule 326 IAC 8-2-9(d)(2), applies because the spray booths emit more than 15 lbs/day of Volatile Organic Compound (VOC) Emissions, therefore the company cannot discharge into the atmosphere volatile organic compounds in excess of 3.5 lbs of VOC/ gallon of coating excluding water. Records of the coating VOC content shall be maintained for 24 months and made available upon request to the office of Air Management.

Any change or modification which may increase the potential emissions to more than 25 tons per year of Volatile Organic Compound Emissions from the equipment covered in this letter must be approved by the Office of Air Management before such change may occur.

Sincerely,

Paul Dubenetzky

Paul Dubenetzky, Chief
Air Programs Branch
Office of Air Management

PAS

cc: Johnson County Health Department
Air Compliance Section
Enforcement Section - DD
Data Support Section

Permit Processing: New Applications
Check off after completed
Mark NA when not applicable

Company Name: Arvin North American Automotive, Franklin Plant
Identifcation Number: ~~089-4910~~ 081-4910
Construction Location: Franklin

X____ Receive application, making sure the following have been stamped with the date received:
X____**Form A-C** on the application
X____Cover Page of the application (if any)
X____the filing fee receipt (both copies)

X____ Assign CP number from black CP number log book
X___write CP number on original application
X___write CP number and name of company on both copies of receipt
X___ filing fee received: amount $100.00 receipt # 73486

X____ Xerox 2 copies of the application (1 single-sided copy and 1 double-sided copy) excluding blueprints and Material Safety Data Sheets (MSDS) and one copy of Form A-C.

Fill in Tracking forms:
X____ AA tracking: (new application received), indicating which section application was sent to
X____ Billing and Refund Instructions
X____ Plant Point/Segment ID form

For the double-sided copy, (Compliance copy) do the following:
X____ write Compliance Branch, New Application, on the application
X____ check Form A-C to see if the company may be in violation of 326 IAC 2-1 (construction without a permit)
X____ if the estimated date of construction is before the date the application was received, highlight the construction date on the Compliance Branch copy
X____ send application to Compliance

For the single-sided copy, (Engineer's copy) do the following:
X____ attach Billing and Refund Instructions, Plant Point/Segment ID form, MSDS, and blueprints
X____ give to appropriate Engineer I, based on SIC code

For Form A-C (Enforcement) do the following:
X____ write Enforcement, New application, and CP# on Form A-C
X____ send to David Valinetz, Enforcement, IGCN 13th floor.

For the original, (file) do the following:
X____ make a hanging folder for the original application labeled with the company name and the CP number. File application with this checklist and receipts.

revised 2/95mmg

Permit Review Master Checklist

Company Name: Arvin - North American Automotive

Identification # : D 8 1 - 4 9 1 0 - _ _ _ _ _

- ☐ Initial Completeness Checklist
- ☐ Level of Document Checklist
- ☐ Final Completeness Checklist
- ☐ Permit Reviewer's Summary
  - ☐ Application is Complete

  Check the following which apply:

  - ☐ Exemption
  - ☐ Registration
  - ☒ Permit
  - ☐ Permit Modification
  - ☒ CWOP (construction without a permit)
  - ☒ OWOP (operation without a permit) Oct. 1, 1995
  - ☐ Non-Attainment for _____, _____
  - ☐ PSD ☐ Yes ☐ No
  - ☐ Offset ☐ Yes ☐ No
  - ☐ Special Issues 326 | Ac 8-2-9

Permit Reviewer: Kathy Whitten **Date:** 10/16/95

Additional Comments: Engineer needs to talk to either Angie Lee Aida - possibly DJ Knotts about supplemental info (see attached yellow note). May need to NOD for new W-1 form.

Initial Completeness Checklist

Check the appropriate boxes in order to determine completeness of the application. If the form is not complete, then do not check the box.

COMPLETE	N/A	
☑	☐	**Form A-C *General Information***: Applicant filled out company name, address, phone number, and contact name.
☑	☐	**Form A-C *General Information***: Applicant filled out SIC Code or included a description.
☑	☐	**Form A-C-2 *General Information***: Applicant filled out dates of estimated or actual construction commencement and completion.
☑	☐	**Form A-C-2 *General Information***: Applicant filled out date of estimated or actual commencement of operation.
☑	☐	Note Date of Receipt of Application 9/29.
☑	☐	Determine whether applicant constructed or operated prior to receipt ~~of application~~. Operation began 10/1 ***Circle* CWOP, OWOP, *or both*** ~~If application was received~~ after the applicant began construction the application is **CWOP**. If application was received after the applicant began operation, the application is **OWOP**.
☐	☐	**Form A-C-2 *General Information***: Applicant signed the application.
☑	☐	**Form B *Plant Layout and GEP Stack Height Information Sheet*** (and attachments): Applicant must provide drawings to scale, location of all applicable emission points, all roadways, must include a compass pointing north, etc.
☐	☑	**Form C *Solid or Liquid Waste Incinerator Information***: Applicant completely filled out form.
☐	☐	**Form D *Combustion***: Applicant completely filled out form.
☑	☐	**Form E *Process Information***: Applicant completely filled out form.
☑	☐	**Form F *Flow Diagram*** (and attachments): Applicant has provided enough data that the reviewer can understand work flow (processes, control equipment, raw material input, and hourly capacities).
☐	☑	**Form G *Storage and Handling of Bulk Material***: Applicant completely filled out form.

COMPLETE	N/A	
☐	☐	**Form H *Process for Asphalt Plant*:** Applicant completely filled out form.
☐	☐	**Form I *Brick and Clay Products*:** Applicant completely filled out form.
☐	☐	**Form J-1 *Reciprocating Internal Combustion Engines*:** Applicant completely filled out form.
☐	☐	**Form J-2 *Gas Turbine Engines*:** Applicant completely filled out form.
☐	☐	**Form K *Concrete Batchers*:** Applicant completely filled out form.
☐	☐	**Form L-1 *Degreasing: Cold Cleaners*:** Applicant completely filled out form.
☐	☐	**Form L-2 *Degreasing: Open Top Degreasers*:** Applicant completely filled out form.
☐	☐	**Form L-3 *Degreasing: Conveyorized Degreasers*:** Applicant completely filled out form.
☐	☐	**Form M *Dry Cleaners*:** Applicant completely filled out form.
☐	☐	**Form N-1 *Foundry Operations*:** Applicant completely filled out form.
☐	☐	**Form N-2 *Foundry Operations*:** Applicant completely filled out form.
☐	☐	**Form O *Grain Elevators*:** Applicant completely filled out form.
☐	☐	**Form P *Lime Manufacturing*:** Applicant completely filled out form.
☐	☐	**Form Q-1 *Particulate Control Equipment*:** Applicant completely filled out form.
☐	☐	**Form Q-2 *Thermal and Catalytic Oxidizers*:** Applicant completely filled out form.
☐	☐	**Form R *Organic Compound Tanks*:** Applicant completely filled out form.
☐	☐	**Form S *Portland Cement Manufacturing*:** Applicant completely filled out form.
☐	☐	**Form T *Printing Press*:** Applicant completely filled out form.
☐	☐	**Form U *Sand and Gravel Processing Plant*:** Applicant completely filled out form.

COMPLETE	N/A	
☐	☑	**Form V *Nonmetallic Mineral Processing Plant*:** Applicant completely filled out form.
☑	☐	**Forms W-1 *Surface Coating and Accessory Solvents*:** Applicant completely filled out forms. With the exception of column 10, each column must be filled out for every coating and solvent used. It is also necessary to note which coatings and/or solvents are associated with which emission points described in Form W-2. Confirm that the applicant has included a "VOC Data Sheet" for each coating and solvent - both for "as supplied" condition and for "as applied" condition. Confirm that all densities, volatile and solids content figures are as delivered to the applicator. That is if the coating is diluted or "thinned" prior to application, the figures on Form W-1 must reflect this. If the applicant has not supplied "as applied" figures, use the RAI letter below to obtain the "as applied" values. Send the applicant a copy of EPA 450/3-84-019 "Procedure for Certifying Quantity of Volatile Organic Compounds Emitted by Paint, Ink, and Other Coatings" Chapter 3 to instruct him/her on approved methodology for calculating these values.
☑	☐	**Form W-2 *Surface Coating and Accessory Solvents*:** Applicant completely filled out form. Each column must be completely filled out for each place that surface coatings and/or solvents are applied to substrate. This form, if complete, renders Form Q unnecessary.
☑	☐	**Forms W-3 and W-4 *VOC Data Sheets*:** Applicant completely filled out forms.
☐	☑	**Form X *Woodworking and Plastics Machining*:** Applicant completely filled out form.
☑	☐	**Forms Y1-Y5 *Air Toxic Pollutants*:** Applicant completely filled out form.
☐	☑	**Form Z *On-Site Soil Remediation*:** Applicant completely filled out form.
☐	☑	**Form AA *Fugitive Emissions from Vehicular Traffic*:** Applicant completely filled out form
☐	☑	**Form BB-1 *Pneumatic Blasting*:** Applicant completely filled out form.
☐	☑	**Form BB-2 *Mechanical Blasting*:** Applicant completely filled out form.
☐	☑	**Form CC *Welding and Oxygen Cutting of Metal*:** Applicant completely filled out form.
☐	☑	**Form DD *Reinforced Plastics and Composites*:** Applicant completely filled out form.
☐	☑	**Form EE-1 *Affidavit*:** Applicant completely filled out form.

Need Revised W-1

☐ ☑ **Form EE-2 *Owners and Occupants Notified*:** Applicant completely filled out form.

☑ ☐ **Form EE-3 *Affidavit of Nonapplicability*:** Applicant completely filled out form.

☑ ☐ **Form FF *Facility Identification*:** Applicant completely filled out form.

☐ ☐ **Prepare a Notice of Deficiency (NOD) letter to notify the applicant of any information that prevented checking off any of the above items, as well as less crucial omissions, such as SIC Code from A-C Form.**

☐ Tracking is complete for NOD (Joanne must receive reviewer's Tracking Form).

After all items above are checked off, proceed to the Level of Document Checklist.

Level of Document Checklist

- ☐ Calculate and label potential emissions, in lb/hr and ton/yr.
- ☐ Calculate and label allowable emissions, in lb/hr and ton/yr.
- ☐ Choose potential or allowable emissions level (whichever is lower) and state it.
- ☐ Compare the after control potential emissions with the allowable emissions to determine whether or not the facility is in compliance with the allowable limit ***(if not, then send an NOD)***.
- ☐ **Determine the level of document required.**
  - ☐ **Check for exemption**
    If the state potential emission of VOC is less that 15 pounds per day, and particulate emission is less than 25 pounds per day, then the facility or source in question is exempt pursuant to 326 IAC 2-1.
    - ☐ If an exemption is required, then check the box if the exemption letter is complete.
  - ☐ **Check for registration**
    If the state potential emissions of both VOC and particulate matter (taken separately) are less than 25 tons per year each, but emission of VOC exceeds 15 pounds per day, or emissions of particulate matter exceeds 25 pounds per day; then the facility in question requires a registration pursuant to 326 IAC 2-1.
    - ☐ If a registration is required, then check the box if the registration letter is complete.
  - ☐ **Check for permit**
    If the state potential emission of either VOC or particulate exceeds 25 tons per year, then the source or facility in question requires a permit pursuant to 326 IAC 2-1.
    - ☐ If the application needs a permit, then pass the application on to the Engineer I for distribution.
- ☐ **Determine which (if any) rules apply?**
  - ☐ 326 IAC 6-1-7: TSP non-attainment (Howard)
  - ☐ 326 IAC 6-2: Boilers
  - ☐ 326 IAC 6-3: Processes
  - ☐ 326 IAC 7-1: SO_2 or combustion source limit = 0.5 lb/mmBtu
  - ☐ 326 IAC 11: PM on some industries such as fiberglass mfg.
  - ☐ NSPS: 40 CFR 60
  - ☐ Other: 326 IAC 8-2-9

CONSTRUCTION PERMIT
OFFICE OF AIR MANAGEMENT

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

Arvin North American Automotive
1001 Hurricane Street
Franklin, Indiana

is hereby authorized to construct

Cadillac paint line that includes the following:

a) one (1) spray paint booth with a rated capacity of 137 automotive mufflers per hour. Type of spray coating is electrostatic air atomized using two (2) spray guns, with overspray controlled by dry filters, exhausting to stack S-2,

b) one (1) natural gas fired drying oven with a rated capacity of 6.4 million Btu per hour of heat input, exhausting to stack S-3,and

c) three (3) natural gas fired parts washer combustion units with a rated capacity of 1.5,1.5 and 0 .8 million Btu per hour of heat input to each gas burner, exhausting to stack S-1.

THIS PERMIT IS ISSUED UNDER THE PROVISIONS OF 326 IAC 2-1 and 40 CFR 52.780, WITH CONDITIONS LISTED ON THE ATTACHED PAGES.

CP No. 081- 4910
Plt ID No. 005- 00020

PROPOSED

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 13-7), the Air Pollution Control Law (IC 13-1-1) and the rules promulgated thereunder, as well as other applicable local, state, and federal requirements.

3. That pursuant to IC 13-7-10-2.5, 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 discontinued for a 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).

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. 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.

   (b) Permittee shall receive an Operation Permit Validation Letter from the Chief of the Permit Administration & Development Section and attach it to this document.

   That the operation permit will be subject to annual operating permit fees pursuant to 326 IAC 2-1-7.1(Fees).

   That 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:

PROPOSED

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 13-7), the Air Pollution Control Law (IC 13-1-1) and the rules promulgated thereunder.

3. That the particulate matter (PM) overspray from the surface coating facilities shall be prevented from being visibly detectable at the exhaust or accumulating on the rooftops or on the ground.

4. That pursuant to 326 IAC 2-1-3(j), records of surface coating quantities and organic solvent contents shall be maintained for a minimum period of 24 months and made available upon request of the Office of Air Management (OAM). Any change or modification which may increase potential emissions from the equipment covered in this permit shall obtain a construction permit pursuant to 326 IAC 2-1 before such change may occur.

5. That pursuant to 326 IAC 8-2-9 (Miscellaneous Metal Coating Operations), the volatile organic compound (VOC) content of coatings applied to automotive exhaust pipe and mufflers shall be limited to:

Coatings	Limit (pounds of VOC/gallon of coating less water delivered to the applicator)
Air Dried Coat	3.5

6. That the particulate matter overspray from the surface coating facilities shall be considered in compliance with 326 IAC 6 provided that the overspray is not:

   a) visibly detectable at the exhaust and
   b) accumulated on the rooftops or on the ground.

PROPOSED

Mail to: Permit Administration & Development Section
Office Of Air Management
100 North Senate Avenue
P. O. Box 6015
Indianapolis, Indiana 46206-6015

Arvin North American Automotive
1001 Hurricane Street
Franklin, Indiana 46131

Affidavit of Construction

I, _____ being duly sworn upon my oath, depose and say:

1. I live in _____ County, Indiana and being of sound mind and over the twenty -one (21) years of age, I am competent to give this affidavit.

2. I hold the position of _____ for _____

3. By virtue of my position with _____ I have personal knowledge of the representations contained in this affidavit and am authorized to make these representations on behalf of _____.

4. I hereby certify that Arvin North American Automotive,1001 Hurricane Street, Franklin, Indiana 46131, has constructed Cadillac Paint line with the spray paint booth, three (3) stage parts washer combustion units and the dry - off oven with the requirements and intent of the construction permit application received by the Office of Air Management on September 29,1995 as permitted pursuant to **Construction Permit No. CP- 081 - 4910, Plant ID No. 081 - 00020** issued on _____.

Further Affiant said not.

PROPOSED

I affirm under penalties of perjury that the representations contained in this affidavit are true, to the best of my information and belief.

_____
Signature

_____
Name (typed or printed)

_____
Date

STATE OF INDIANA)
)SS

COUNTY OF _____)

Subscribed and sworn to me, a notary public in and for _____ County and State of Indiana on this _____ day of _____, 19 _____ .

My Commission expires: _____ .

_____
Signature

_____
Name (typed or printed)

PROPOSED

Indiana Department of Environmental Management
Office of Air Management

Technical Support Document (TSD) for New Construction and Operation

Arvin North American Automotive
1001 Hurricane Street
Franklin, Indiana 46131

The Office of Air Management has reviewed an application from Arvin North American Automotive, relating to construction and operation of a Cadillac paint line to increase the current production of mufflers in the existing facility.

Arvin North American Automotive currently operates two (2) paint lines at the Franklin plant which are defined as the Cadillac line and the Mazda line. The Mazda line was permitted in 1992. The interim construction permit CP 081-3535, Plt ID 081-00020 was issued to the Cadillac paint line on February 11, 1994, and was put on operation in July 1994. The Cadillac line generated approximately 4.4 tons of VOC emissions in 1994 and the Mazda paint line generated approximately 4.0 tons of VOC in 1994. The remaining 2.1 tons of VOC emissions at the facility were from cleaning the paint equipment and fuel combustion. The total VOC emissions from the source is reported to be 10.5 tons per year. The Mazda line is currently not in use and its future use is uncertain. However, there are no plans to use the Mazda line in the foreseeable future.

The Cadillac line has potential to emit VOC emissions of 33.6 tons per year. Arvin North American Automotive has requested to relax their limit to 99 tons per year. This constitutes that the facility has never operated as a major source in the past and will continue to operate as a minor source.

The Cadillac paint line includes one (1) spray paint booth and a three (3) stage parts washer area with natural gas fired drying oven.

The spray paint booth will increase the production rate from 96 mufflers to 137 mufflers per hour with this proposed modification. The method of paint application is by electrostatic air atomized guns with the overspray controlled by dry filters with 95.0% control efficiency. There are no controls provided to control VOC emissions.

The construction of the Cadillac paint line started in 2/11/94 and was completed in 6/11/94. The interim construction permit was issued on 2/11/94. There was no operation permit issued at that time,and this facility has been in operation. This will be referred to IDEM Office of Enforcement because the source is operating without an operation permit (OWOP)

Stack Summary :

Stack ID	Operation	Height (feet)	Diameter (feet)	Flow Rate (acfm)	Temperature (^{0}F)
S-1	Parts washer	29.0	2.0	7,030	450
S-2	Spray booth	29.0	2.5	30,000	Ambient
S-3	Drying oven	29.0	1.0	7,500	450

Enforcement Issue

IDEM is aware that this Cadillac paint line has been operated prior to receipt of the proper permit. IDEM is reviewing this matter and will take appropriate action. This proposed permit is intended to satisfy the requirements of the construction permit rules.

Recommendation

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

A construction application for the purposes of this review was received on September 29, 1995, with additional information received on October 26, 1995.

Emissions Calculations

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

Total Allowable Emissions

Total Allowable Emissions Definition (emissions after compliance with the rules, based on 8,760 hours of operation per year at rated capacity):

Pollutant	Emissions (tons/year)
PM	58.4
VOC	94.5
CO	0.9
NO_x	4.4

Allowable emissions (as defined in the Indiana Rule) of Volatile Organic Compounds and the particulate matter are greater than 25 tons per year. Therefore, the facility or source in question requires a construction permit pursuant to 326 IAC 2-1, section 1 and 3.

County Attainment Status

Volatile organic compounds (VOC) are precursors for the formation of ozone. Therefore VOC emissions are considered when evaluating rule applicability relating to the ozone standards. Johnson County has been designated as attainment or unclassifiable for ozone. Therefore VOC emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 and 40 CFR 52.21

Johnson County has been classified as attainment or unclassifiable for the rest of the criteria pollutants. Therefore these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 and 40 CFR 52.21.

Source Status:

The Existing source PSD Definition (emissions based upon the letter, dated October 25,1995, from Mr. Andrew H Weisman of Pacific Environmental Services, Inc.) is as follows:

Pollutant	Tons per year
Volatile Organic Compounds (VOC)	10.5

This existing source is not a major stationary source because emissions of VOC are not emitted at a rate of 250 tons per year or greater. Therefore, pursuant to 326 IAC 2-2 and 40 CFR 52.21, the PSD requirements do not apply.

Proposed Modification

Allowable PSD emissions from the proposed modification (after compliance with applicable rules, based on 8,760 hours of operation per year at 137 mufflers per hour) are as follows:

Pollutant	PM (ton/yr)	VOC (ton/yr)	CO (ton/yr)	NO_x (ton/yr)
Proposed Modification	3.9	94.5	0.9	4.4
PSD or Offset Threshold Level	250	250	250	250

See attached calculation sheets for detailed calculations.

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

Federal Rule Applicability

There are no New Source Performance Standards (326 IAC 12) applicable to this facility.

State Rule Applicability

326 IAC 8-2-9 (Miscellaneous Metal Coating Operations)

This painting is subject to the above rule. Pursuant to this rule, the volatile organic compound content of coatings applied to the motor vehicle exhaust system shall be limited to:

Air dried coatings: 3.5 lb of VOC/ gallon of coating less water
Based on the volume weighted average, the VOC content is 3.50 lb/gallon of coating. Therefore, it complies with the applicable rule. See Appendix A for detailed compliance calculation.

326 IAC 2-6 (Emission reporting)

The modification of the Cadillac paint line does not emit more than 100 tons per year of VOC. Therefore, it is not subject to the rule 326 IAC 2-6.

Air Toxic Emissions

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

This proposed modification 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: 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. 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.

Air Toxic Analysis

Pollutant	Rate (lb/hr)	Rate @ 8,760 hr/yr (ton/yr)	Modeled Concentration (mg/m3)	OSHA PEL (mg/m3)	% OSHA PEL
Toluene	0.2479	1.0858	0.00464	375.0	0.001
Xylene	7.4900	32.8062	0.13700	435.0	0.030
Glycol Ethers	0.3229	1.4143	0.00199	N/A	N/A
Total	8.0608	35.3063			

Methodology:
Rate (ton/yr) = (rate; lb/hr) * (hr/yr of operation)* (1 ton/2,000 lbs.)
Building Dimensions: Height = 24.0 feet, width = 620.0 feet and length = 940.0 feet.

Conclusion

The modification of this Cadillac paint line used for manufacturing motor vehicle exhaust systems with spray paint booth, three (3) stage washer area and the drying oven will be subject to the conditions of the attached construction permit **CP# 081 -4910 , Plt Id. # 081 -00020.**

Appendix A

Arvin North American Automotive
1001 Hurricane Street
Franklin , Indiana
CP No. 081 - 4910 - 00020
Emission Calculations:

I . Emissions from the parts washer and dry off oven:

The drying oven has a gas fired burner rated at 6.4 MM Btu per hour and the three stage parts washer has gas fired burners with a rated capacity of 1.5, 1.5 and 0.8 MM Btu per hour. The total usage of natural gas in these washers is 3.8 MM Btu per hour. The total throughput of natural gas will be 10.2 MMBtu per hour which is equivalent to 89.35 MMCF per year.

Pollutant	**PM**	**PM_{10}**	**SO_2**	**NOx**	**VOC**	**CO**
Emission factor in lb/MMCF	12.00	12.00	0.60	100.0	3.80	21.00
Potential Emissions in Tons/yr.	0.54	0.54	0.03	4.42	0.17	0.94
Total	**0.54**	**0.54**	**0.03**	**4.42**	**0.17**	**0.94**

Methodology :

Pollutant in tons per year =(Maximum throughput ,MMCF/yr) x (emission factor, lb/MMCF) x (1 ton/2,000 lb)

Emissions factors are from AP42 1.4- Natural Gas Combustion (EPA 450/4-90-003, SCC # 1-03-006-03)

II. Emissions from the spray booth S-2: See attached spread sheet for detailed calculations

III. Allowable Emissions Summary: All the emissions listed in the following table are in tons per year.

Process or equipment	**PM**	**VOC**	**NOx**	**SO_2**	**CO**
Combustion	0.54	0.17	4.42	0.03	0.94
Painting operations	57.89	94.29	0.00	0.00	0.00
Total	**58.43**	**94.46**	**4.42**	**0.03**	**0.94**

IV. VOC Emissions after control :

Since there are no controls provided, the VOC emissions after controls will remain the same as potential emissions.

V. PM Emissions after control:

PM emissions after control = Emissions of PM before the control x (1- % control efficiency)
= 57.89 tons/year x (1-0.95)
= 13.75 x 0.05 = 2.89 tons/year.

Arvin North American Automotive
Franklin, Indiana

CP No. 081 -4910
Plt ID No. 081 -00020

VI. Summary of Emissions after control: All emissions listed in the following table are in tons/year.

Process or equipment	PM	VOC	NOx	SO_2	CO
Combustion	0.54	0.17	4.42	0.03	0.94
Paint booth	2.89	94.29	0.00	0.00	0.00
Total	**3.43**	**94.46**	**4.42**	**0.03**	**0.94**

VII. Compliance verification of 326 IAC 8-2-9:

Rule 326 IAC 8-2-9: Extreme duty coating, the limit is 3.5 lb. of VOC per gallon of coating less water.

Average VOC in lb/gal of coating = summation of (lb of VOC / gal of coating less volume of water in that coating x use of each coating in gal/unit)/ Summation of total volume of coating in gallons per unit.
Average VOC in lb/gal of coating less water = VF = $(V_1 x F_1 + V_2 x F_2 + V_3 x F_3 \ldots\ldots + V_{19} x F_{19}) / F = F_1 + F_2 + F_3 \ldots\ldots F_{19}$

Where V_1 = $\frac{\text{Density lb/gal x(Wt. of \% organic - Wt. \% water) x gal/unit}}{\text{(1 - \% weight of water x } \frac{\text{density of the coating}}{\text{density of water}} \text{)}}$

= $\frac{\text{column II x column III}}{\text{column IV}}$

and F_1 = Volume of each coating in gal/unit.(column I)

Volume of each coating F=gal/unit I	Density in lb/gal II	Wt. of % organic III	1- (wt. % of water) (density of the coating) /density of water IV	VF = I x II x III / IV V
0.04400	11.79	29.30	1-0=1	0.1519
0.04400	12.30	28.70	1-0=1	0.1553
0.00025	7.24	100.00	1-0=1	0.0018
0.08825				0.3090

VF (from column V) = $V_1F_1 + V_2F_2 + V_3 F_3$ = 0.1519 + 0.1553 + 0.0018 = 0.3090
F (from column I) = $F_1 + F_2 + F_3$ = 0.04400 + 0.04400 + 0.00025 = 0.08825

Arvin North American Automotive
Franklin, Indiana

CP No. 081 -4910
Plt ID No. 081 -00020

Therefore, VF/F = 0.3090 / 0.08825 = 3.50 lb of VOC/gal. of coating less water.

Therefore, the proposed coating will comply with applicable rule 326 IAC 8-2-9.

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

Company Name: Arvin North American Automotive, Franklin Plant
Plant Location: Franklin, Indiana
CP: 081-4910
ID: 081-00020
Reviewer: Kathy Whitten
Date: October 16, 1995

Material	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
Wabash - 980082-2	11.79	29.30%	0.0%	29.3%	0.0%	20.80%	0.04400	137.000	3.45	3.45	20.82	499.77	91.21	55.02	16.61	75%
Wabash - 978061-6	12.30	28.70%	0.0%	28.7%	0.0%	26.20%	0.04400	137.000	3.53	3.53	21.28	510.71	93.20	57.89	13.47	75%
Toluene	7.24	100.00%	0.0%	100.0%	0.0%	0.00%	0.00025	137.000	7.24	7.24	0.25	5.95	1.09	0.00	ERR	75%

State Potential Emissions

Add worst case coating to all solvents | **94.29** | **57.89**

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)
Total = Worst Coating + Sum of all solvents used

Minor Source Screening Form

Date 10/24/95

Company Name : ARVIN NORTH AMERICAN AUTOMOTIVE ID # 081-00020 __ - Title V
__ - FESOP
__ - SSOA

Location : FRANKLIN, INDIANA

Reviewer : YOGESH PARIKH. Modeler : MARK

MAXIMUM PERMITTED EMISSION RATES (lb/hr)

Hazardous Air Pollutants

Stack	XYLENE	TOLUENE	GLYCOLETHERS					
S-2	7.49	0.25	0.33					
S-3								
	0.944	0.032	0.0137					

PARAMETERS for each emission point and adjacent building.

Conversion factors -> [3.28 ft = 1 meter], [1 lb/hr = 0.126 g/s], [{5/9 x (° Fahrenheit)} + 255.38 = °Kelvin]

Stack (No.)	Emission Rate (lb/hr)	Stack Height (ft)	Stack Diameter (ft)	Flow Rate (acfm)	Stack Temperature (°F)	Building Height (ft)	Building Width (ft)	Building Length (ft)	Closest Property Line (ft)
S-2		29.0	2.5	30,000	Ambient	24.0	620.0	940.0	170.0
S-3		29.0	1.0	7,500	450	24.0	620.0	940.0	170.0
		8.84m	0.762	31.05	293.2				
			0.305	49.51	505.4				

RESULTS (ug/m³)

Hazardous Air Pollutants

1 hour								
8 hour	136.92	4.64	1.99					
Annual								

LIMITS (ug/m³)

PEL	435000.0	37500.0	—					
% PEL	0.03	0.001	—					

Revised 5-18-95

Is your RETURN ADDRESS completed on the reverse side?

SENDER:

- Complete items 1 and/or 2 for additional services.
- Complete items 3, and 4a & b.
- Print your name and address on the reverse of this form so that we can return this card to you.
- Attach this form to the front of the mailpiece, or on the back if space does not permit.
- Write "Return Receipt Requested" on the mailpiece below the article number.
- The Return Receipt will show to whom the article was delivered and the date delivered.

I also wish to receive the following services (for an extra fee):

1. ☐ Addressee's Address
2. ☐ Restricted Delivery

Consult postmaster for fee.

3. Article Addressed to:
61-50kam
Robert Elliot
Arvin North American Automotive
Franklin Plant
1001 Hurricane Street
Franklin, IN 46131

4a. Article Number
Z 441 076 055

4b. Service Type
☐ Registered ☐ Insured
☐ Certified ☐ COD
☐ Express Mail ☐ Return Receipt for Merchandise

7. Date of Delivery
12-16-95

5. Signature (Addressee)
Michael J. Clonmont 1/16

6. Signature (Agent)

8. Addressee's Address (Only if requested and fee is paid)

PS Form **3811**, December 1991 ☆U.S. GPO: 1993—352-714 **DOMESTIC RETURN RECEIPT**

4910

Thank you for using Return Receipt Service.

BILLING AND REFUND INSTRUCTIONS

Engineer: YP

CP Number: ~~089~~ 081-4910

Plant ID: 081-00020

Company Name: Arvin North American Automotive, Franklin Plant
Mailing Address: 1001 Hurricane Street
City, State, Zip: Franklin, IN 46131
Attention: Robert Elliot
Phone Number: (317)736-7111
Fax Number: _____
Date Application Received: 09/29/95
Facility Description: one spray paint booth, three stage parts washer area and the dry-off oven.

Credit for filing fee:	$100.00	receipt #73486
Credit for add'l fees:	$_____	receipt #_____
Total Credit:	$100.00	

Engineer/Scientist: Please check off applicable fees

construction/registration fees

_____$100 for exemption review = $100 filing fee
_____$600 for registration review (including $100 filing fee)
$3,500-00 $3,500 for construction permit review (includes $100 filing fee)
_____$6,000 for PSD permit review (includes $100 filing fee)
_____$500 for interim construction permit

air quality impact study review

_____$3,500 if applicant does analysis, or
_____times $6,000 per pollutant if OAM does analysis equals $_____

PSD BACT or LAER review

_____$2,500 for 2 to 5 review analyses, or
_____$5,000 for 6 to 10 review analyses, or
_____$10,000 for 11 or more review analyses

additional fees

_____times $500 for each NSPS review equals $_____
_____times $500 for each NESHAP review equals $_____
_____times $600 for each 326 IAC 8-1-6 BACT review equals _____
_____$500 for a public hearing

$ 3,500.00 Total
-$ 100.00 Total credit
=$ 3,400.00 **Total Due**

REFUND

Total Refund Due: $_____

Reason for Refund: _____

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

We make Indiana a cleaner, healthier place to live

Evan Bayh
Governor
Kathy Prosser
Commissioner

100 North Senate Avenue
P.O. Box 6015
Indianapolis, Indiana 46206-6015
Telephone 317-232-8603
Environmental Helpline 1-800-451-6027

December 14, 1995

VIA CERTIFIED MAIL Z 441 076 055

Robert Elliot
Arvin North American Automotive, Franklin Plant
1001 Hurricane Street
Franklin, IN 46131

Re: Air Permit Fee Billing
Permit No. 081-4910-00020

Dear Mr. Elliot:

The Office of Air Management has received your construction permit application. Staff has conducted a preliminary review of the application and determined that it is substantially complete. However, future review may indicate that additional information is necessary.

Before this review can be completed, it will be necessary for you to submit the permit fee required by 326 IAC 2-1-7.1. According to our preliminary review, the total fee due is $3400.00 This is based on:

$3500.00	construction permit review
-100.00	credit for filing fee
$3400.00	total

The number in bold print in the subject line of this letter is your Construction Permit number and should be written on the face of your check or money order to assure that the fee is credited to your account. Please send one copy of this bill along with a check or money order payable to "Indiana Department of Environmental Management - OAM" to:

Cashier
Department of Environmental Management, OAM
P.O. Box 7060, Room 1324
Indianapolis, Indiana 46206-7060

Any questions or additional information should be directed to the Office of Air Management at the address above or by contacting the engineer assigned to your permit, Yogesh Parikh, at 317/233-0203. Prompt payment will help avoid delay in the processing of your permit. Construction cannot commence until the permit is issued. This document is not a permit.

Sincerely,

Debra A. Dubenetzky

Debra A. Dubenetzky, Chief
Permit Administration Section
Office of Air Management

3240-411100-140000

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

RECEIPT

RECEIVED

SEP 29 1995

STATE OF INDIANA
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR MANAGEMENT

ARVIN NORTH AMERICAN AUTOMOTIVE
1531 13th Street, Columbus, Indiana 47201 812 379-3000

National Bank of Detroit-Dearborn

No. 0555

74-129
724

DATE 09/22/95

PAY EXACTLY**********100 DOLLARS****00 CENTS

PAY EXACTLY $100.00

VOID AFTER 90 DAYS

DER INDIANA DEPARTMENT OF ENVIRONMENTAL MGMT, CASHIER
PO BOX 7060
INDIANAPOLIS, IN 46206-7060

James K Carlisle
Richard A Dietz

AUTHORIZED SIGNATURE

⑈055502⑈ ⑆072412927⑆ 00266486⑈

#111
W/DACKAYE

RECEIPT NO. 073486

ACCOUNT NUMBER 3240 140000

PROGRAM 411100

AMOUNT $ 100.00 CASH ☐ RECEIVED FROM

DATE 9-28-95 REPRESENT

CASHIER

COMMENT

Arvin North American Automotive, Franklin Plant
081-4910

Construction Permit
4-3-96

FORM APPROVED BY STATE BOARD OF ACCOUNTS 1992.

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

RECEIPT

ARVIN NORTH AMERICAN AUTOMOTIVE
1531 13th Street, Columbus, Indiana 47201 812 379-3000

National Bank of Detroit-Dearborn

No. 062

74-
7

PERMIT # 081-4910-00020

DATE 01/02/96

VOID

PAY EXACTLY *****3,400 DOLLARS 00 CENTS

PAY EXACTLY $3,40

VOID AFTER 90 DAYS

TO THE ORDER OF

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
100 N SENATE, P O BOX 7060
INDIANAPOLIS, IN 46207

James K Baker
Richard A Dit

AUTHORIZED SIGN

⑈062459⑈ ⑆072412927⑆ 0026[illegible]

RECEIVED

JAN 17 1996

STATE OF INDIANA
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR MANAGEMENT

RECEIPT NO. 078291

ACCOUNT NUMBER 3240 140000

PROGRAM 411100

AMOUNT $3400.00 CASH ☐ RECEIVED FROM

DATE 1/16/96 REPRESENT

CASHIER

COMMENT Arvin North American
081-4910-00020
Construction Permit
4-3-96

FORM APPROVED BY STATE BOARD OF ACCOUNTS, 1992.

ARVIN
NORTH AMERICAN
AUTOMOTIVE

January 10, 1996

Cashier
Department of Environmental Management, OAM
P. O. Box 7060, Room 1324
Indianapolis, Indiana 46206-7060

RECEIVED

JAN 17 1996

STATE OF INDIANA
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR MANAGEMENT

RE: Air Permit Fee Billing
Permit No. 081-4910-00020

Dear Sir/Madame:

Enclosed please find our check in the amount of $3,400.00 for the permit fee as requested in you letter to us dated December 14, 1995. A copy of said letter is attached for your review.

Thank you for your assistance. If you should have any questions, please contact me at the address listed below.

Sincerely,

Robert Elliott
Plant Manager
Franklin Plant

RE/bsm

Enclosures

RECEIVED
JAN 12 1996
CASHIER/PAYROLL

1531 13th Street, Box Number 3002, Columbus, Indiana 47202 Phone: 812/379-3000 a division of Arvin Industries, Inc.
Franklin Plant: 1001 North Hurricane Ave., Franklin, Indiana 46131

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

RECEIPT

ARVIN NORTH AMERICAN AUTOMOTIVE
1531 13th Street, Columbus, Indiana 47201 812 379-3000

National Bank of Detroit-Dearborn

No. 011137

74-1292
724

DATE 01/04/94

PAY EXACTLY *********100 DOLLARS****00 CENTS

PAY EXACTLY $100.00**********

VOID AFTER 90 DAYS

Cashier
Department of Environmental Management
P.O. Box 7060
Indianapolis, IN 46206-7060

AUTHORIZED SIGNATURE(S)

⑈011137⑈ ⑆072412927⑆ 00266486⑈

RECEIPT NO. 32038

CCOUNT NUMBER 324-400

ROGRAM 111

IOUNT $ 100.00 CASH ☐ RECEIVED FROM

TE 1/6/94 REPRESENT

SHIER

COMMENT**

FORM APPROVED BY STATE BOARD OF ACCOUNTS, 1992.

ARVIN NORTH AMERICAN AUTOMOTIVE

REQUEST FOR CHECK

№ 027959

Payable to Cashier

Department of Environmental Management

P.O. Box 7060

Indianapolis, IN 46206-7060

DATE 1-4-94

AMOUNT $100.00

Explanation

Construction Permit Application Fee for paint booth

construction for the new Cadillac lines

VOUCHER #: CO. # 0111

VENDOR #: DUE DATE:

ITEM	DIV.	DEPT.	ACCT.	DESC.	AMT.
01	02	2031	03360	Construction per.	100.00
02					
03					

Requested by Amy Paszek

Amy Paszek

Approved by Mark Adolay

Mark Adolay

In order to receive special handling on this request, it is necessary to complete this portion of the form.

SPECIAL HANDLING INSTRUCTIONS

_____ Mail Attached with Check

X Mail Check To: Mark Adolay

Location Franklin PLant

_____ Other Instructions

White Original and Yellow Copy — Submit to Disbursements Accounting with invoice or special attachment(s).

Pink Copy — Retain for your files.

Complete one Request for Check for each individual payment.

Form # 8-2231

Arvin North American Automotive
1001 Hurricane Street
Franklin, Indiana 46131

Attention: Mr.Robert Elliot.
Facility Manager

Re: Operation Permit Validation Construction Permit
No. 081 - 4910 , Plt ID No. 081 - 00020

Ladies and Gentlemen:

The Office of Air Management has received your Affidavit of Construction of one paint line which includes one (1) paint booth, three (3) stages parts washer and the dry off oven located at 1001 Hurricane Street , Franklin, Indiana

You are hereby authorized to operate the facilities constructed under Construction Permit No. CP 081 -4910, Plt ID No. 081 - 00020 pursuant to the operation permit conditions therein. This operation permit shall expire on _____.

Sincerely,

Debbie Dubenetzky, Chief
Air Permit Administration Section
Office of Air Management

yp

cc: File - Johnson County
Air Compliance - Ray Schick
Janet Mobley
Wanda Stanfield
Donna Dickison
Nancy Landau

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

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Evan Bayh
Governor
Kathy Prosser
Commissioner

100 North Senate Avenue
P.O. Box 6015
Indianapolis, Indiana 46206-6015
Telephone 317-232-8603
Environmental Helpline 1-800-451-6027

NOTICE OF 30-DAY PERIOD FOR PUBLIC COMMENT

Proposed Approval of Construction and Operation Permit for Arvin North American Automotive in Johnson County

CP-081-4910, Plt ID-081-00020

Notice is hereby given that the above company located at 1001 Hurricane Street in Franklin, Indiana, has made application to the Indiana Department of Environmental Management (IDEM), Office of Air Management (OAM) for a permit to construct and operate a Cadillac paint line to increase the production rate from 96 mufflers to 137 mufflers per hour. The paint line includes one (1) paint booth, three (3) stage parts washer combustion units, and one (1) drying oven. This facility manufactures mufflers for the motor vehicle exhaust systems. Based on 8,760 hours of operation per year, the potential emissions of PM and VOC before controls are 58.97 and 94.5 tons per year, respectively. PM after dry filter controls is approximately 4.0 tons per year. There is no VOC control.

IDEM is aware that this Cadillac paint line has been operated prior to receipt of the proper permit. IDEM is reviewing this matter and will take appropriate action. This proposed permit is intended to satisfy the requirements of the construction permit rules.

Notice is hereby given that there will be a period of 30 days from the date of publication of this notice during which any interested person may comment on why this proposed permit should or should not be issued. Appropriate comments should be related to air quality issues, interpretation of the applicable state and federal rules, calculations made, technical issues, or the effect that the operation of this facility would have on any aggrieved individuals. A copy of the application and staff review is available for examination at the Johnson County Public Library located at 401 South State Street, Franklin, Indiana 46131-2545. All comments, along with supporting documentation, should be submitted in writing to the IDEM, OAM, 100 North Senate Avenue, P.O. Box 6015, Indianapolis, Indiana 46206-6015. If appropriate adverse comments concerning the **air pollution impact** of this proposed source are received, together with a request for a public hearing, such a hearing may be held to give further consideration to this application.

Persons not wishing to comment at this time, but wishing to receive notice of future proceedings conducted related to this action, must submit a written request to the Office of Air Management, at the above address. All interested parties of record will receive a notice of the decision on this matter and will then have 15 days after receipt of the Notice of Decision to file a petition for the administrative review. Procedures for filing such a petition will be enclosed with the Notice.

Questions should be directed to Mr. Yogesh B Parikh, Office of Air Management, 100 North Senate Avenue, P.O. Box 6015, Indianapolis, Indiana 46206-6015 or by telephone at 317/233-0203.

Paul Dubenetzky

Paul Dubenetzky , Chief
Permit Branch
Office Of Air Management

yp

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Governor
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100 North Senate Avenue
P.O. Box 6015
Indianapolis, Indiana 46206-6015
Telephone 317-232-8603
Environmental Helpline 1-800-451-6027

December 14, 1995

VIA CERTIFIED MAIL Z 441 076 055

Mr. Robert Elliot
Arvin North American Automotive
1001 Hurricane Street
Franklin, Indiana 46131

Re:Modification of Cadillac Paint Line
CP- 081-4910, Plant ID# 081-00020

Dear Mr.Robert Elliot:

Our staff has completed an initial review of your construction permit application submitted on September 29,1995.

As part of our review, the Office of Air Management (OAM) evaluates the potential for harm to the public or environment from emissions of any of the 189 hazardous air pollutants (HAP) listed under Title III of the federal Clean Air Act Amendments of 1990 (CAAA). However, at this time, Indiana rules do not provide specific control technology standards or air quality standards for these individual hazardous air pollutants.

There are two (2) federal programs that will affect new facilities that emit significant quantities of one of the 189 hazardous air pollutants. First, the U.S. Environmental Protection Agency (EPA) is currently developing Maximum Available Control Technology (MACT) standards for categories of sources that emit one or more of these hazardous air pollutants. The current U. S. EPA schedule for promulgation of MACT standards for individual source categories is enclosed. Once a MACT standard has been developed, all new and existing sources subject to that MACT standard will be required to comply with its requirements.

Second, all states are required to develop and implement new state air operating permit programs pursuant to Title V of the CAAA. All companies with total potential emissions of ten (10) tons per year of a single HAP or twenty-five (25) tons per year of a combination of HAPs are considered a major source and will be required to obtain a Title V operating permit. In addition, once Indiana's Title V operating permit program is approved by U.S. EPA, construction of or modification to a major source of HAPs which results in a greater than four (4) ton per year increase of a single HAP or ten (10) tons per year increase of a combination of HAPs will be required to apply MACT. In cases where no federal MACT standard exists, the state will determine the MACT.

Arvin North American Automotive
Franklin, Indiana

CP No. 081 -4910
Plt ID No. 081 -00020

Your application indicates that your planned project may ultimately subject your facility to the need for a Title V permit and the application of a MACT standard. Our evaluation of the potential for health effects based on your emissions indicates that serious consideration should be given to limiting the hazardous air pollutant emissions from this facility. In order to simplify future retrofit to meet a federal MACT standard, to possibly simplify future permit requirements and to minimize any potential impact on public health, we encourage you to evaluate possible control options for the listed hazardous air pollutants included in your application. It is our experience that it is most cost-effective to design control systems or to consider alternative processes that minimize or do not use the materials responsible for the air releases.

Our staff is available to discuss this matter further and to assist you in any requested revisions to the application. If there are any questions, please contact Yogesh Parikh, OAM, Permit Section 3, 100 North Senate Avenue, P.O. Box 6015, Indianapolis, Indiana 46206-6015, or call 317-233-0203.

Sincerely,

Paul Dubenetzky

Paul Dubenetzky, Chief
Permit Branch
Office of Air Management

yp

Arvin North American Automotive
Franklin, Indiana
Permit Reviewer Name: Yogesh Parikh

CP No. 081 -4910
Plt ID No. 081 -00020

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 13-7), the Air Pollution Control Law (IC 13-1-1) and the rules promulgated thereunder.

3. That the particulate matter (PM) overspray from the surface coating facilities shall be prevented from being visibly detectable at the exhaust or accumulating on the rooftops or on the ground.

4. That pursuant to 326 IAC 2-1-3(j), records of surface coating quantities and organic solvent contents shall be maintained for a minimum period of 24 months and made available upon request to ~~of~~ the Office of Air Management (OAM). Any change or modification which may increase potential emissions from the equipment covered in this permit shall obtain a construction permit pursuant to 326 IAC 2-1 before such change may occur.

5. That pursuant to 326 IAC 8-2-9 (Miscellaneous Metal Coating Operations), the volatile organic compound (VOC) content of coatings applied to automotive exhaust pipe and mufflers shall be limited to:

Coatings	Limit (pounds of VOC/gallon of coating less water delivered to the applicator)
Air Dried Coat	3.5

6. That the particulate matter overspray from the surface coating facilities shall be considered in compliance with 326 IAC 6 provided that the overspray is not:

   a) visibly detectable at the exhaust and
   b) accumulated on the rooftops or on the ground.

PROPOSED

Mail to: Permit Administration & Development Section
Office Of Air Management
100 North Senate Avenue
P. O. Box 6015
Indianapolis, Indiana 46206-6015

Arvin North American Automotive
1001 Hurricane Street
Franklin, Indiana 46131

Affidavit of Construction

I, _____ being duly sworn upon my oath, depose and say:

1. I live in _____ County, Indiana and being of sound mind and over the twenty -one (21) years of age, I am competent to give this affidavit.

2. I hold the position of _____ for _____

3. By virtue of my position with _____ I have personal knowledge of the representations contained in this affidavit and am authorized to make these representations on behalf of _____.

4. I hereby certify that Arvin North American Automotive,1001 Hurricane Street, Franklin, Indiana 46131, has constructed Cadillac Paint line with the spray paint booth, three (3) stage parts washer combustion units and the dry - off oven with the requirements and intent of the construction permit application received by the Office of Air Management on September 29,1995 as permitted pursuant to **Construction Permit No. CP- 081 - 4910, Plant ID No. 081 - 00020** issued on _____ .

Further Affiant said not.

PROPOSED

CHECK LIST FOR THE
ADMINISTRATIVE ADJUDICATION ACT (AAA)

Company Arvin North America Automotive CP number 081-4910-00020

County Johnson City FRANKLIN

✓ Permanent County AAA list checked

The following are concerned citizens:

*Use additional pages if more room is necessary.

(3/20/95)

pub 12/22/95 paid 1/19/96 $3400.00 # 078291 Ends: 1/20/96

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

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Governor
Kathy Prosser
Commissioner

736-7101

100 North Senate Avenue
P.O. Box 6015
Indianapolis, Indiana 46206-6015
Telephone 317-232-8603
Environmental Helpline 1-800-451-6027

December 14, 1995

CERTIFIED MAIL Z 441 076 056

ATTENTION: PUBLIC NOTICES, LEGAL ADVERTISING

Franklin Daily Journal
P.O. Box 699
Franklin, IN 46131

Enclosed, please find one Indiana Department of Environmental Management Notice of Public Comment for Arvin North American Automotive, Johnson County, Indiana.

Since our agency must comply with requirements which call for a 30-Day Public Notice Period, we request that you print this Notice one time, no later than December 21, 1995.

Please send me a notarized form and clippings showing the date of publication. Also, please send the billing to my attention, at the Indiana Department of Environmental Management, 100 North Senate Avenue, P.O. Box 6015, Indianapolis, Indiana, 46206-6015.

We are required by the Auditor's Office to request that you place the Federal ID Number on all claims.

Sincerely,

Patricia J. McBroom

Patricia J. McBroom
Office of Air Management

Enclosure
cc: Accounting
CP# 081-4910-00020

Is your RETURN ADDRESS completed on the reverse side?

SENDER:

- Complete items 1 and/or 2 for additional services.
- Complete items 3, and 4a & b.
- Print your name and address on the reverse of this form so that we can return this card to you.
- Attach this form to the front of the mailpiece, or on the back if space does not permit.
- Write "Return Receipt Requested" on the mailpiece below the article number.
- The Return Receipt will show to whom the article was delivered and the date delivered.

I also wish to receive the following services (for an extra fee):

1. ☐ Addressee's Address
2. ☐ Restricted Delivery

Consult postmaster for fee.

3. Article Addressed to:

61-50kam
Franklin Daily Journal
Legal Advertising
P.O. Box 699
Franklin, IN 46131

4a. Article Number

Z 441 076 056

4b. Service Type

☐ Registered ☐ Insured
☒ Certified ☐ COD
☐ Express Mail ☐ Return Receipt for Merchandise

7. Date of Delivery

12-19-95

5. Signature (Addressee)

6. Signature (Agent)

8. Addressee's Address (Only if requested and fee is paid)

Thank you for using Return Receipt Service.

PS Form **3811**, December 1991 ☆U.S. GPO: 1993—352-714 **DOMESTIC RETURN RECEIPT**

4910

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Governor
Kathy Prosser
Commissioner

100 North Senate Avenue
P.O. Box 6015
Indianapolis, Indiana 46206-6015
Telephone 317-232-8603
Environmental Helpline 1-800-451-6027

December 14, 1995

CERTIFIED MAIL Z 441 076 057

Johnson County Public Library
401 S. State St.
Franklin, IN 46131-2545

RE: Construction Permit Application Review
for: Arvin North American Automotive,
Johnson County, Indiana

In an effort to better disseminate Public Notice information to the public for review and comment, the Indiana Department of Environmental Management requests the use of the services of libraries statewide.

Rule 326 IAC 2-1, Section 3 (f)(2) requires the Department of Environmental Management to post for a 30-Day Public Comment Period any Construction Permit application to construct a facility which could introduce significant air pollution to the surrounding area.

Enclosed is a copy of a Construction Permit Application, Technical Support Document, proposed Construction Permit, calculations, and the Public Notice which will be printed in your local newspaper.

You will not be responsible for collecting any comments. Please refer all questions and requests for copies to the Department of Environmental Management.

All statements concerning the above construction should be submitted in writing to the Department of Environmental Management, 100 North Senate, P.O. Box 6015, Indianapolis, Indiana 46206-6015.

If your department or person reviewing plans have any questions, these should be directed to the person indicated on the Legal Notice.

Sincerely,

Patricia Joan McBroom

Patricia Joan McBroom
Office of Air Management

Enclosures

Johnson County

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

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100 North Senate Avenue
P.O. Box 6015
Indianapolis, Indiana 46206-6015
Telephone 317-232-8603
Environmental Helpline 1-800-451-6027

December 14, 1995

Health Officer
Johnson County Health Dept.
86 W. Court St.
Franklin, IN 46131-2345

TO WHOM IT MAY CONCERN:

We are sending the Public Notice Package to the indicated library to make available for public review.

Attached is the Public Notice.

Patricia J. McBroom
Office of Air Management

Enclosures

Is your RETURN ADDRESS completed on the reverse side?

SENDER:

- Complete items 1 and/or 2 for additional services.
- Complete items 3, and 4a & b.
- Print your name and address on the reverse of this form so that we can return this card to you.
- Attach this form to the front of the mailpiece, or on the back if space does not permit.
- Write "Return Receipt Requested" on the mailpiece below the article number.
- The Return Receipt will show to whom the article was delivered and the date delivered.

I also wish to receive the following services (for an extra fee):

1. ☐ Addressee's Address
2. ☐ Restricted Delivery

Consult postmaster for fee.

3. Article Addressed to:

61-50kam
Johnson County Public Library
401 S. State St.
Franklin, IN 46131-2545

4a. Article Number

Z 441 076 057

4b. Service Type

☐ Registered ☐ Insured
☐ Certified ☐ COD
☐ Express Mail ☐ Return Receipt for Merchandise

7. Date of Delivery

12·16·95

5. Signature (Addressee)

Miriam L Bailey

6. Signature (Agent)

TB

8. Addressee's Address (Only if requested and fee is paid)

Thank you for using Return Receipt Service.

PS Form **3811**, December 1991 ☆U.S. GPO: 1993—352-714 **DOMESTIC RETURN RECEIPT**

4910

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

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Commissioner

100 North Senate Avenue
P.O. Box 6015
Indianapolis, Indiana 46206-6015
Telephone 317-232-8603
Environmental Helpline 1-800-451-6027

December 14, 1995

Ms. Cheryl Newton
Chief Grant Section AT-18J
U.S. EPA, Region V
77 W. Jackson Blvd.
Chicago, IL 60604

Re: Construction Permit Application Review
for: Arvin North American Automotive,
Johnson County, Indiana.

Dear Ms. Newton:

Enclosed is the Construction Permit Review, which includes a copy of the application, Technical Support Document, 30-Day Public Notice, proposed Construction Permit, and the calculations for the above company. This is as required by 326 IAC 2.

You are invited to send appropriate comments within the designated time period.

Any question should be directed to the individual indicated in the Public Notice.

Sincerely,

Terrence K. Hoya

Terrence K. Hoya, Chief
Engineering Section
Office of Air Management

TKH/pjm

ARVIN
NORTH AMERICAN
AUTOMOTIVE

January 6, 1994

By Hand Delivery

Ms. Kathy Prosser
Indiana Department of Environmental Management
105 South Meridian Street
Indianapolis, Indiana 46206-6015

Subject: Air Pollution Construction
Permit Application
Arvin North American Automotive
Franklin, Indiana

Dear Ms. Prosser:

The permit application for a new air pollution source at the Arvin North American Automotive (NAA) facility in Franklin, Indiana is enclosed. The proposed source is in addition to existing sources at this location that are registered under ID number 081-00020 (6 November 1992). No changes to the existing sources or operations are proposed at this time.

The proposed source is required to meet the needs of a new program that will produce approximately 450,000 exhaust systems for a large North American automobile manufacturer. The target for full operation of the new production line is July 1994. To the best of our knowledge and belief, the information included in this application is true, correct, and accurate. NAA will make every effort to ensure that changes in the process or schedule conform to Indiana regulations.

Please contact me at (812) 379-3575 if there are any questions or problems about this matter.

Sincerely,

Douglas A. Logan, P.E.
Director of Environmental Affairs

STATE OF INDIANA
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR MANAGEMENT
CONSTRUCTION PERMIT APPLICATION

FORM A-C

GENERAL INFORMATION

Company Name Arvin Industries, Inc. Franklin Plant

Phone (317)736-7111

Mailing Address 1001 N. Hurricane (Street, P.O. Box) Franklin (City) 46131 (Zip Code)

New Construction Location 1001 N. Hurricane (No., St., Rd., Hwy.) Franklin (City) Johnson (County)

Person to Contact on Matters of Air Pollution:

Name Douglas A. Logan

Title Director Environmental Affairs & Safety Phone (812)379-3000

If you have changed company name or location in the past six (6) years, please list the previous name(s) and location(s):

Name

Location

Standard Industrial Classification Code 3714
(if you do not know, a short description of business will suffice)

What is being installed? Production Line for Automotive pipe & muffler assemblies.

Is construction an entirely new plant? NO

Estimated Cost of Project $ 3.2 Million

Estimated Cost of Air Pollution Control Equipment $ 340,000

Estimated date construction will start January 1994

Estimated date construction will be complete June 1994

Estimated date operation will begin July 1994

I hereby certify that the information submitted this 6TH day of JANUARY 19 94 is true and correct to the best of my knowledge.

Signature

Title Vice President

Plans and Specifications Approved By:

Indiana P.E. License No. 910175

DOUGLAS A. LOGAN REGISTERED No. 910175 STATE OF INDIANA PROFESSIONAL ENGINEER

STATE OF INDIANA
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR MANAGEMENT

FORM B

Plant Layout and GEP Stack Height Information Sheet

Company Name Arvin Industries, Inc. Franklin Plant

This permit application must include a plant layout(s) showing the following information:

1. Drawings, several, if necessary, but each one must be to scale, with actual scale shown. All dimensions must be clearly indicated. This includes building heights, widths, and lengths, and their distance relationship with the property line. It should also indicate where fences or other access-limiting features exist.

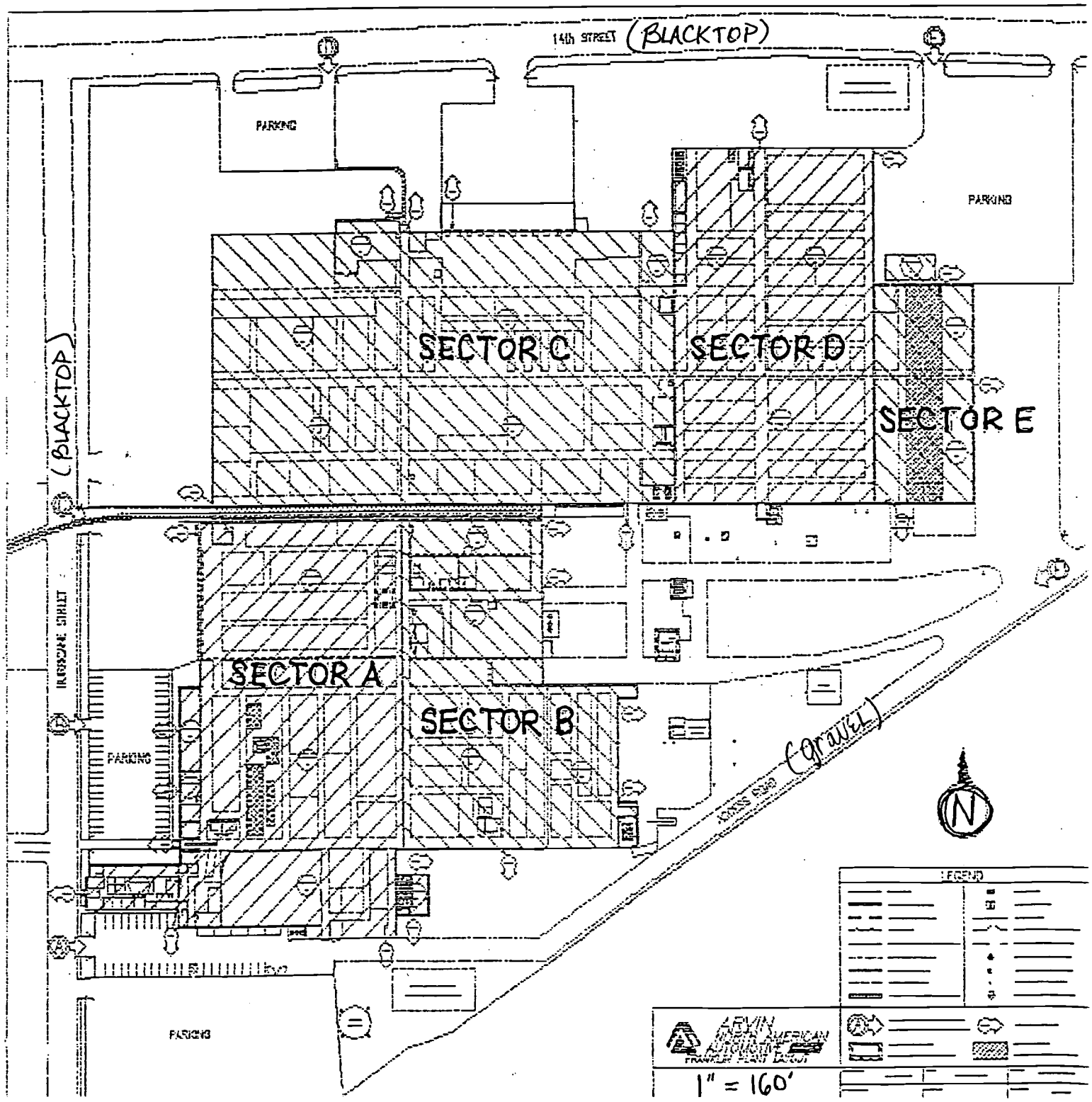
2. The layout must show the location of all emission points (exhaust stacks, roof monitors, control devices, or process vents, etc.). Identify each of these emission points under "Stack Identification" on the appropriate forms.

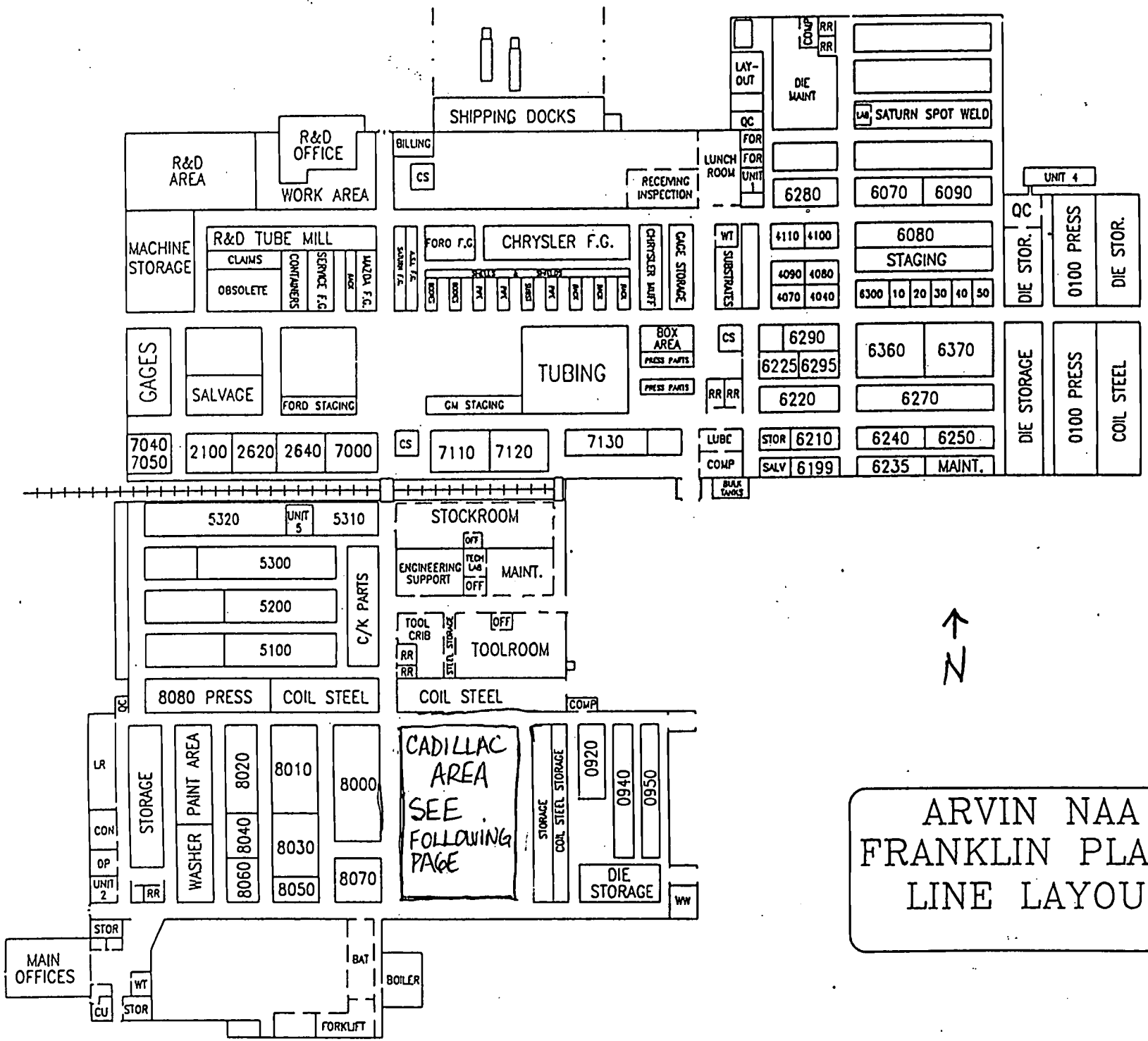
3. The layout(s) must show all roadways and description of roadway surfaces.

4. The layout(s) must include a compass pointing north.

SEE ATTACHED SHEETS

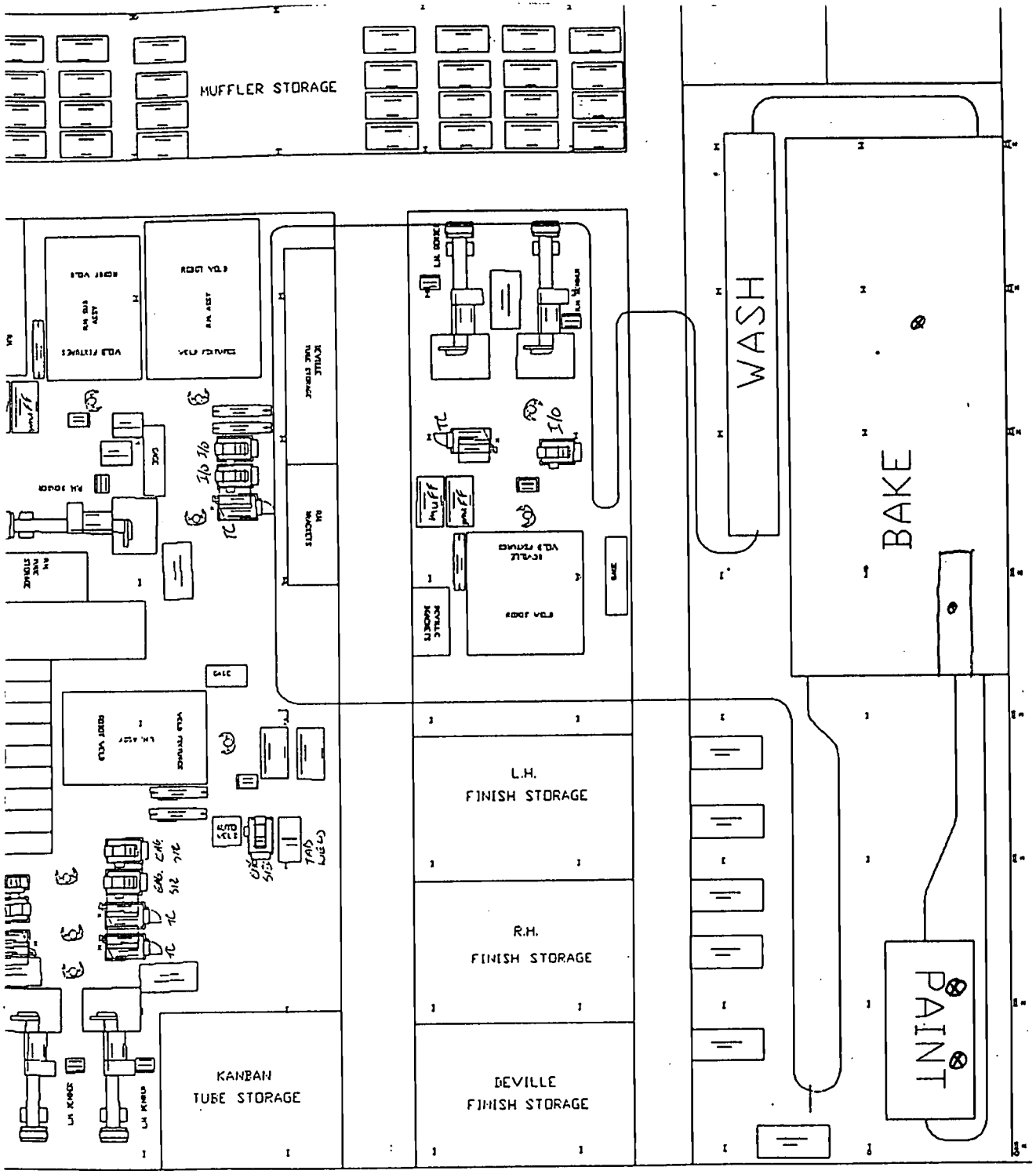
PLANT LAYOUT





ARVIN NAA FRANKLIN PLANT LINE LAYOUT

CADILLAC AREA



OVEN EXHAUST
1 - 12" ϕ
7500 CFM

IR PREHEAT EXHAUST
1 - 12" ϕ
7500 CFM

N

BOOTH EXHAUST
2 - 30" ϕ
30000 CFM TOTAL

FORM C

STATE OF INDIANA
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR MANAGEMENT

Incinerator Information

Not Applicable XXX

Company Name Arvin Industries, Inc. Franklin Plant

Manufacturer _____ Model _____

(Furnish sketch with dimensions)

Design Capacity _____ lb/hr _____ Btu/hr

Type of Waste Burned (Be Specific) _____

_____

Check one: Single Chamber w/Afterburner _____ Multiple Chambers _____

Burner in Primary Chamber? Yes _____ No _____

Burner in Secondary Chamber? Yes _____ No _____

Type of Fuel _____

Chamber	Primary	Secondary
Residence Time (sec)	_____	_____
Temperature (°F)	_____	_____

STACK DATA

Stack Identification _____

Height (ft above ground) _____

Diameter (ft inside) _____

Gas discharge Temperature (°F) _____

Gas Flow Rate (acfm) _____

OPERATION SCHEDULE

Hours/Day _____

Days/Week _____

Weeks/Year _____

Manufacturer's Guaranteed Emission Rate (lb particulate matter per 1,000 lb dry exhaust gas at 70°F and 1 atm, corrected to 50 % excess air) _____

Revised 9/22/83

FORM D

STATE OF INDIANA
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR MANAGEMENT

Fuel Combustion Information
Boilers, Heaters, Ovens or other Fuel Combustion Units (FCU)

Not Applicable _____

Company Name Arvin Industries, Inc. Franklin Plant

Type of FCU	Burner	Burner
FCU Identification	Washer Stage 1	Washer Stage 2
Method of Fuel Feed		
* Capacity (MM Btu/hr input)	1.5	1.5
** Fire Box Volume (cu ft)		
Start of Construction Date	1-94	1-94
Start of Operation Date	7-94	7-94
FUEL		
Type Used	Natural gas	Natural gas
% Ash Min/Max (solid fuel only)		
% Sulfur Min/Max		
Higher Heating Value Min/Max	1 MM BTU/1 MCF	1 MM BTU/1 MCF
Amount Burned/Yr (ton, cu ft, gal)	6000 MCF	6000 MCF
EMISSION CONTROL UNIT		
Type of PM Emission Control Unit	NONE	NONE
% Efficiency		
Type of SO2 Emission Control Unit	NONE	NONE
% Efficiency		
Type of NOx Emission Control Unit	NONE	NONE
% Efficiency		
STACK DATA		
Stack Identification	Exhaust through oven	Exhaust through oven
Height (ft above ground)		
Diameter (ft inside)		
Gas Discharge Temperature (°F)		
Gas Flow Rate (acfm)		
OPERATION SCHEDULE		
Hours/Day	16	16
Days/Week	5	5
Weeks/Year	50	50

* note: MM = million
** complete only if boiler over 100 MM Btu/hr

Revised 10-25-88

FORM D

STATE OF INDIANA
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR MANAGEMENT

Fuel Combustion Information
Boilers, Heaters, Ovens or other Fuel Combustion Units (FCU)

Not Applicable _____

Company Name Arvin Industries, Franklin Plant

Type of FCU	Burner	Burner
FCU Identification	Washer Stage 5	Oven
Method of Fuel Feed		
* Capacity (MM Btu/hr input)	.8	6.4
** Fire Box Volume (cu ft)		
Start of Construction Date	1-94	1-94
Start of Operation Date	7-94	7-94
FUEL		
Type Used	Natural gas	Natural gas
% Ash Min/Max (solid fuel only)		
% Sulfur Min/Max		
Higher Heating Value Min/Max	1 MM BTU/1 MCF	1 MM BTU/1 MCF
Amount Burned/Yr (ton, cu ft, gal)	3200 MCF	26,600 MCF maximum
EMISSION CONTROL UNIT		
Type of PM Emission Control Unit	NONE	NONE
% Efficiency		
Type of SO2 Emission Control Unit	NONE	NONE
% Efficiency		
Type of NOx Emission Control Unit	NONE	NONE
% Efficiency		
STACK DATA		
Stack Identification	Exhaust through oven	oven Exhaust
Height (ft above ground)		30'
Diameter (ft inside)		1'
Gas Discharge Temperature (°F)		450°
Gas Flow Rate (acfm)		7500 CFM
OPERATION SCHEDULE		
Hours/Day	16	16
Days/Week	5	5
Weeks/Year	50	50

* note: MM = million
** complete only if boiler over 100 MM Btu/hr

Revised 10-25-88

FORM E

STATE OF INDIANA
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR MANAGEMENT

Process Information

Not Applicable _____

Company Name Arvin Industries, Inc.

Products Produced Automotive pipe & muffler assemblies

Raw Material Rate (use an additional sheet if needed)

TYPE MATERIAL	RATE (LB/HR)
WABASH KB809HSHH	58

Finished Product

Pounds/Hour Maximum Not Determined Normal _____

Process and Control Equipment (Use an additional sheet if needed)
Process Identification:

1 Binks paint booth W/ parts washer, Dry off & Bake oven.

Type of Control Andreae filter
Efficiency 90%
For Dry Collectors, Tons/year Collected N/A
STACK DATA
Stack Identification NONE

Height (ft. above ground) 29' agl

Diameter (ft. inside) 2.83'

Gas Discharge Temperature (Deg F) Ambient

Gas Flow Rate (acfm) 30,000 cfm

Operation Schedule

Hours/Day 16
Days/Week 5
Weeks/Year 50

STATE OF INDIANA
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR MANAGEMENT

FORM F

Flow Diagram

Not Applicable___ ___

Company Name Arvin Industries, Franklin Plant

This permit application must include a simple flow diagram of your operation from raw materials input to the finished products. Show points of emission including stacks. Show location of air pollution control equipment, the process it controls, and removal efficiency. State the maximum hourly capacity of each step of the operation.

*Please see attached sheet.

FORM G

STATE OF INDIANA
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR MANAGEMENT

Storage and Handling of Bulk Material

Not Applicable XXX

Company Name Arvin Industries, Inc., Franklin Plant

Material Handled or Stored	Method of Handling	Silo, Bin or Pile	Storage Capacity (Tons)	Maximum Throughput (Tons/Yr)	(Lb/Hr)

Dust Control Methods

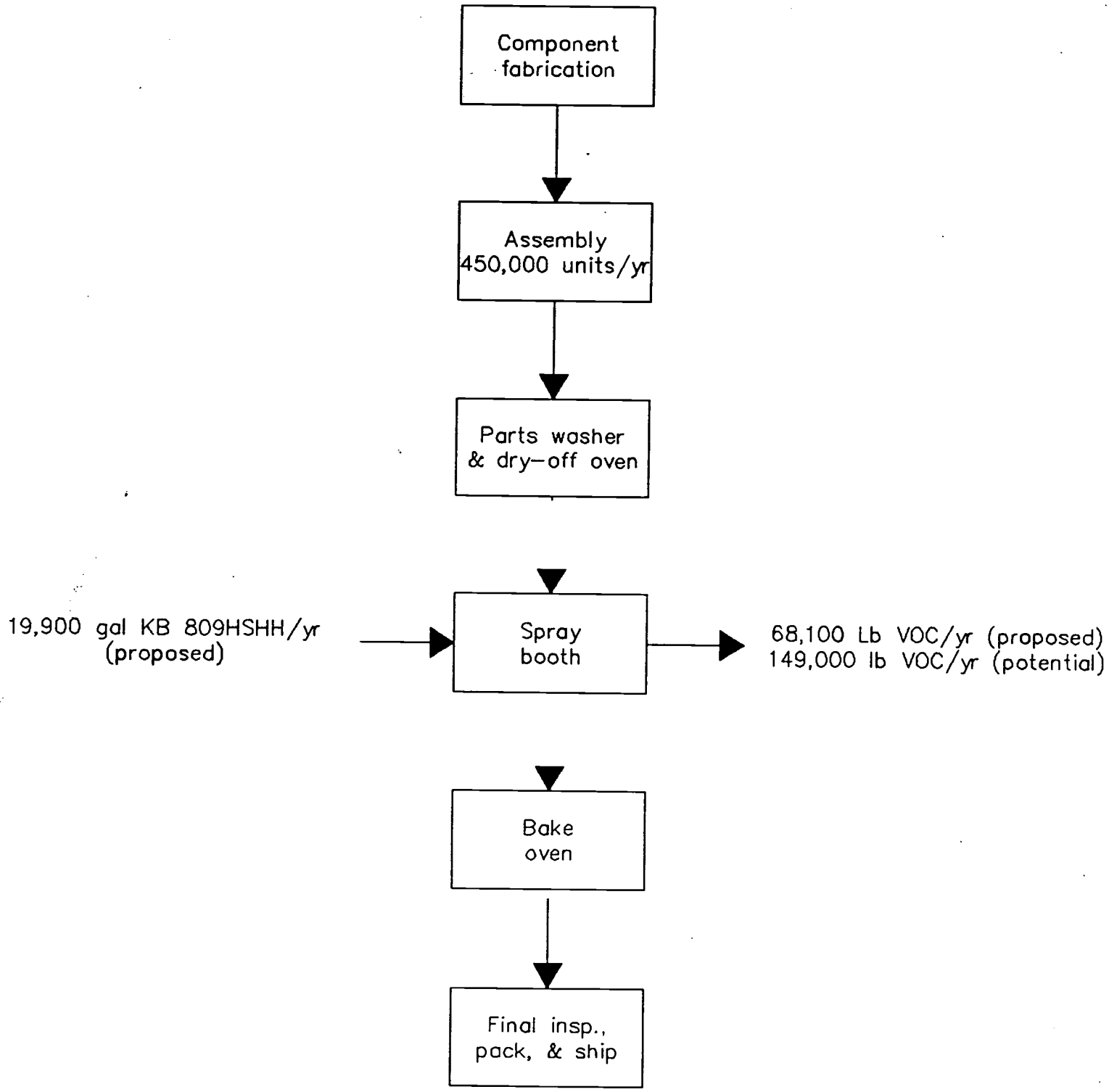
Process

Type of Control

Efficiency

Process Flow Diagram

Arvin NAA
Franklin Plant
January 6, 1994



FORM Q

Indiana Department of Environmental Management
Office of Air Management

PARTICULATE CONTROL DEVICES

GENERAL INFORMATION

Emission point identification (complete a separate page for each device) Spray booth exhaust

Percent of Particulate Matter less than 10 microns at the outlet Not known %

Grain loading per actual cubic foot of outlet air .01, Average gas Temperature Ambient °F

Design percentage collection efficiency 90 % (1- Weight Leaving) X100
(Weight Entering)

SPECIFIC COLLECTOR INFORMATION

A. CYCLONE

Number of tubes_____, Tube diameter _____in.

B. BAGHOUSE

Bag material_____

Total filter area_____ft^2, Air to cloth ratio_____$acfm/ft^2$

Pressure drop across baghouse_____inches of water

Method of bag cleaning (ie. shaking, jetpulse etc...)_____

C. ELECTROSTATIC PRECIPITATOR (ESP)

Type of ESP: Wet_____, Dry_____, Hot Side_____, Cold Side_____

Face velocity across the plates_____ft/sec, Total face surface area_____ft^2

Number of fields along flow path_____, Gas conditioning agent_____

Delay time between starting of system and ESP unit operation_____

Why?_____

D. WET COLLECTORS (Scrubber Type_____)

Pressure drop across scrubber_____inches of water, Flow Rate_____gpm

Scrubbing liquor_____, Liquid to air ratio_____$gpm/10^3acfm$

Is there a demister following the scrubber?_____

Settling pond: volume_____ft^3, Depth_____ft, Width_____ft, Length_____ft,

Diameter (if circular)_____ft

Revised 8/11/88

STATE OF INDIANA
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR MANAGEMENT

SURFACE COATING AND ACCESSORY SOLVENTS

Company Name Arvin Industries, Inc. Franklin Plant

1 Material (Coatings, Solvents, Etc.)	2 Identification Number	3 Material Density Lb / Gal	4 Weight % Volatiles (Water and Organics)	5 Weight % Water	6 Volume % Water	7 Volume % Non-volatiles (Solids)	8 Gallons of Material* Required for One Production Unit Gal / Production Unit	9 Maximum Number of Production Units per Hour	10 Actual** Usage Gal/Yr	11 Process or Booth I. D.
Coatings	KB809HSHH	11.7	.293	0	0	52	.043	111		Binks

* If different types or sizes of units are coated in the same paint booth with the same coating, this amount should be based on the production unit requiring the most gallons per hour. Gallons per hour = Column 8 x Column 9. If different coatings are used, they must be listed as a separate material.

** Complete this column for operation permit renewals only.

Attach a Material Safety Data Sheet (MSDS) for each material listed. DO NOT SEND THE ENTIRE MSDS. The required sections are: Section I (Product Identification), Section II (Composition Information), and Section III (Physical Property Information).

Density, Weight % Volatiles, and Weight % Water are determined by methods listed in 326 IAC 8-1-4

Revised 7-16-91

Form W-1

Form W-2

STATE OF INDIANA
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR MANAGEMENT

SURFACE COATING AND ACCESSORY SOLVENTS

Company Name Arvin Industries Inc., Franklin Plant

Process or Booth Identification (1)	Cadillac line BINKS			
Application Method (2)	Spray			
If sprayed Specify type (3)	HVLP			
Type of Overspray controls (4)	Dry filter			
Control Efficiency	90%			
Type of Hydrocarbon controls (5)	NONE			
Control Efficiency	N/A			
Stack Height (feet above ground)	29 feet			
Stack Diameter (inches)	30 inches			
Exhaust flow Rate (acfm)	30,000 CFM			
Exhaust Discharge Temperature °F	Ambient			

Operating Schedule: 16 hours/day 5 days/week 50 weeks/year

1. Use identifiers from forms B and F.

2. Method of application refers to dipping, spraying, rollcoating, brushing, flowcoating, or other.

3. Types of spray coating include: air atomization, airless, electrostatic disc, electrostactic airless, electrostatic air atomized, low pressure air atomization, low pressure-high volume, or other.

4. Overspray controls include: dry and wet filters, baffles, waterwash, or other.

5. Hydrocarbon controls include: catalytic or direct flame incineration, solvent recovery, carbon adsorption, or other.

Revised 8-23-88

FORM Y1
7-29-91

STATE OF INDIANA
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR MANAGEMENT

Air Toxic Pollutants

Company Name Arvin Industries, Inc.

Location Franklin Plant

Place an "X" beside each compound listed on forms Y1 through Y4 that will be emitted into the air from the equipment covered in this application. Attach Sections I, II, and III (only) of Material Safety Data Sheets (MSDS) for each toxic containing material. List all emission points (as identified on the site plot plan) for each compound. Include stack parameters for each listed air toxic emission point on the appropriate form.

X	CAS NUMBER	CHEMICAL NAME	EMISSION POINTS	MAXIMUM EMISSION RATE (POUNDS/HR)
	00075070	Acetaldehyde		
	00060355	Acetamide		
	00075058	Acetonitrile		
	00098862	Acetophenone		
	00053963	2-Acetylaminofluorine		
	00107028	Acrolein		
	00079061	Acrylamide		
	00079107	Acrylic Acid		
	00107131	Acrylonitrile		
	00107051	Allyl chloride		
	00092671	4-Aminodiphenyl		
	00062533	Aniline		
	29191524	o-Anisidine		
	01332214	Asbestos		
	00071432	Benzene (including from gasoline)		
	00092875	Benzidine		
	00098077	Benzotrichloride		
	00100447	Benzyl chloride		
	00092524	Biphenyl		
	00117817	Bis (2-ethylhexyl) phthalate		
	00542881	Bis(chloromethyl)ether		
	00075252	Bromoform		
	00106990	1,3-Butadiene		
	00156627	Calcium cyanamide		
	00105602	Caprolactam		
	00133062	Captan		
	00063252	Carbaryl		
	00075150	Carbon disulfide		
	00056235	Carbon tetrachloride		
	00463581	Carbonyl sulfide		
	00120809	Catechol (1,2-dihydroxylbenzene)		
	00133904	Chloramben		
	00057749	Chlordane		
	07782505	Chlorine		
	00079118	Chloroacetic acid		
	00532274	2-Chloroacetophenone		
	00108907	Chlorobenzene		
	00510156	Chlorobenzilate		
	00067663	Chloroform		
	00107302	Chloromethyl methyl ether		
	00126998	Chloroprene		
	01319773	Cresols/Cresylic acid (isomers and mixtures)		
	00095487	o-Cresol		
	00108394	m-Cresol		
	00106445	p-Cresol		
	00098828	Cumene		
	00095757	2,4-D, salts and esters		

FORM Y2
7-29-91

STATE OF INDIANA
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR MANAGEMENT

Air Toxic Pollutants

X	CAS NUMBER	CHEMICAL NAME	EMISSION POINTS	MAXIMUM EMISSION RATE (POUNDS/HR)
___	00334883	Diazomethane	___	___
___	00132649	Dibenzofurans	___	___
___	00096128	1,2-Dibromo-3-chloropropane	___	___
___	00084742	Dibutylphthalate	___	___
___	00106467	1,4-Dichlorobenzene (p)	___	___
___	00091941	3,3-Dichlorobenzidene	___	___
___	00111444	Dichloroethyl ether (Bis (2-chloroethyl)ether)	___	___
___	00542756	1,3-Dichloropropene	___	___
___	00062737	Dichlorvos (DDVP)	___	___
___	00111422	Diethanolamine	___	___
___	00121697	N,N-Diethyl aniline (N,N-Dimethylaniline)	___	___
___	00064675	Diethyl sulfate	___	___
___	00119904	3,3'-Dimethoxybenzidine	___	___
___	00060117	Dimethyl aminoazobenzene	___	___
___	00119937	3,3'-Dimethyl benzidine	___	___
___	00079447	Dimethyl carbamoyl chloride	___	___
___	00068122	Dimethyl formamide	___	___
___	00057147	1,1-Dimethyl hydrazine	___	___
___	00131113	Dimethyl phthalate	___	___
___	00077781	Dimethyl Sulfate	___	___
___	00534521	4,6-Dinitro-o-cresol, and salts	___	___
___	00051285	2,4-Dinitrophenol	___	___
___	00121142	2,4-Dinitrotoluene	___	___
___	00123911	1,4-Dioxane (1,4-Diethyleneoxide)	___	___
___	00122667	1,2-Diphenylhydrazine	___	___
___	00106898	Epichlorohydrine (1-Chloro-2,3-epoxypropane)	___	___
___	00106887	1,2-Epoxybutane	___	___
___	00140885	Ethyl acrylate	___	___
___	00100414	Ethyl benzene	___	___
___	00051796	Ethyl carbamate (Urethane)	___	___
___	00075003	Ethyl chloride (Chloroethane)	___	___
___	00106934	Ethylene dibromide (Dibromoethane)	___	___
___	00107062	Ethylene dichloride (1,2-Dichloroethane)	___	___
___	00107211	Ethylene Glycol	___	___
___	00151564	Ethylene imine (Aziridine)	___	___
___	00075218	Ethylene Oxide	___	___
___	00096457	Ethylene thiourea	___	___
___	00075343	Ethylidene dichloride (1,1-Dichloroethane)	___	___
___	00050000	Formaldehyde	___	___
___	00076448	Heptachlor	___	___
___	00118741	Hexachlorobenzene	___	___
___	00087683	Hexachorobutadiene	___	___
___	00077474	Hexachlorocyclopentadiene	___	___
___	00067721	Hexachloroethane	___	___
___	00822060	Hexamethylene-1,6-diisocyanate	___	___
___	00680319	Hexamethylphosphoramide	___	___
___	00110543	Hexane	___	___
___	00302012	Hydrazine	___	___
___	07647010	Hydrochloric acid	___	___
___	07664393	Hydrogen fluoride (Hydrofluoric acid)	___	___
___	07788064	Hydrogen sulfide	___	___
___	00123319	Hydroquinone	___	___
___	00078591	Isophorone	___	___
___	00058899	Lindane (all isomers)	___	___
___	00108316	Maleic anhydride	___	___
___	00067561	Methanol	___	___
___	[illegible]	[illegible]	___	___

FORM Y3
7-29-91

STATE OF INDIANA
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR MANAGEMENT

Air Toxic Pollutants

X	CAS NUMBER	CHEMICAL NAME	EMISSION POINTS	MAXIMUM EMISSION RATE (POUNDS/HR)
___	00074839	Methyl Bromide (Bromomethane)	___	___
___	00074873	Methyl chloride (Chloromethane)	___	___
___	00071556	Methyl Chloroform (1,1,1-Trichloroethane)	___	___
___	00078933	Methyl ethyl ketone (2-Butanone)	___	___
___	00060344	Methyl hydrazine	___	___
___	00074884	Methyl iodide (Iodomethane)	___	___
___	00108101	Methyl isobutyl ketone (Hexone)	___	___
___	00624839	Methyl isocyanate	___	___
___	00080626	Methyl methacrylate	___	___
___	01634044	Methyl tert butyl ether	___	___
___	00101144	4,4-Methylene bis(2-chloroaniline)	___	___
___	00075092	Methylene chloride (Dichloromethane)	___	___
___	00101688	Methylene diphenyl diisocyanate (MDI)	___	___
___	00101779	4,4'-Methylenedianiline	___	___
___	00091203	Naphthalene	___	___
___	00098953	Nitrobenzene	___	___
___	00092933	4-Nitrobiphenyl	___	___
___	00100027	4-Nitrophenol	___	___
___	00079469	2-Nitropropane	___	___
___	00684935	N-Nitroso-N-methylurea	___	___
___	00062759	N-Nitrosodimethylamine	___	___
___	00059892	N-Nitrosomorpholine	___	___
___	00056382	Parathion	___	___
___	00082688	Pentachloronitrobenzene (Quintobenzene)	___	___
___	00087865	Pentachlorophenol	___	___
___	00108952	Phenol	___	___
___	00106503	p-Phenylenediamine	___	___
___	00075445	Phosgene	___	___
___	07803512	Phosphine	___	___
___	07723140	Phosphorus	___	___
___	00085449	Phthalic anhydride	___	___
___	01336363	Polychlorinated biphenyls (Aroclors)	___	___
___	01120714	1,3-Propane sultone	___	___
___	00057578	beta-Propiolactone	___	___
___	00123386	Propionaldehyde	___	___
___	00114261	Propoxur (Baygon)	___	___
___	00078875	Propylene dichloride (1,2-Dichloropropane)	___	___
___	00075569	Propylene Oxide	___	___
___	00075558	1,2-Propylenimine (2-Methyl aziridine)	___	___
___	00091225	Quinoline	___	___
___	00106514	Quinone	___	___
___	00100425	Styrene	___	___
___	00096093	Styrene oxide	___	___
___	01746016	2,3,7,8-Tetrachlorodibenzo -p-dioxin	___	___
___	00079345	1,1,2,2-Tetrachloroethane	___	___
___	00127184	Tetrachloroethylene (Perchloroethylene)	___	___
___	07550450	Titanium tetrachloride	___	___
___	00108883	Toluene	___	___
___	00095807	2,4-Toluene diamine	___	___
___	00584849	2,4-Toluene diisocyanate	___	___
___	00095534	o-Toluidine	___	___
___	08001352	Toxaphene (chlorinated camphene)	___	___
___	00120821	1,2,4-Trichlorobenzene	___	___
___	00079005	1,1,2-Trichloroethane	___	___
___	00079016	Trichloroethylene	___	___
___	00095954	2,4,5-Trichlorophenol	___	___

FORM Y4
7-29-91

STATE OF INDIANA
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR MANAGEMENT

Air Toxic Pollutants

X	CAS NUMBER	CHEMICAL NAME	EMISSION POINTS	MAXIMUM EMISSION RATE (POUNDS/HR)
___	00088062	2,4,6-Trichlorophenol		
___	00121448	Triethylamine		
___	01582098	Trifluralin		
___	00540841	2,2,4-Trimethylpentane		
___	00108054	Vinyl acetate		
___	00593602	Vinyl bromide		
___	00075014	Vinyl Chloride		
___	00075354	Vinylidene chloride (1,1-Dichloroethylene)		
XX	01330207	Xylenes (isomers and mixture)	Booth	12.5
___	00095476	o-Xylenes		
___	00108383	m-Xylenes		
___	00106423	p-Xylenes		
___		Antimony Compounds		
___		Arsenic Compounds (inorganic including arsine)		
___		Beryllium Compounds		
___		Cadmium Compounds		
___		Chromium Compounds		
___		Cobalt Compounds		
___		Coke Oven Emissions		
___		Cyanide Compounds[1]		
XX		Glycol ethers[2]	Booth	2.0
___		Lead Compounds		
___		Manganese Compounds		
___		Mercury Compounds		
___		Mineral Fibers[3]		
___		Nickel Compounds		
___		Polycyclic Organic Matter[4]		
___		Radionuclides (Including Radon)[5]		
___		Selenium Compounds		
___		NONE OF THE COMPOUNDS LISTED ON FORMS Y1 THROUGH Y4 WILL BE EMITTED FROM THE EQUIPMENT LISTED IN THIS APPLICATION.		

NOTE: FOR ALL LISTINGS ABOVE WHICH CONTAIN THE WORD "COMPOUND" AND FOR GLYCOL ETHERS THESE LISTINGS ARE DEFINED AS INCLUDING ANY UNIQUE CHEMICAL SUBSTANCE THAT CONTAINS THE NAMED CHEMICAL AS PART OF THAT CHEMICAL'S INFRASTRUCTURE.

1 X'CN where X=H' or any other group where a formal dissociation may occur. For example KCN or $Ca(CN)_2$

2 includes mono- and di- ethers of ethylene glycol, diethylene glycol, and triethylene glycol R-(OCH2CH2)n-OR' where: n= 1, 2, or 3; R= alkyl or aryl groups; and R'= R, H, or groups which, when removed, yield glycol ethers with the structure R-(OCH2CH2)n-OH. Polymers are excluded from the glycol category.

3 includes mineral fiber emissions from facilities manufacturing or processing glass, rock, or slag fibers (or other mineral derived fibers) of average diameter 1 micrometer or less.

4 includes organic compounds with more than one benzene ring, and which have a boiling point greater than or equal to 100 degrees Celsius.

5 a type of atom which spontaneously undergoes radioactive decay.

DO NOT SEND ENTIRE MATERIAL SAFETY DATA SHEETS (MSDS). The required sections are: Section I (Product Identification), Section II (Composition Information), and Section III (Physical Property Information).

IDENTIFICATION OF POTENTIALLY AFFECTED PERSONS

Please read the attached letter from the Commissioner, and list here any persons whom you have reason to believe have a substantial or proprietary interest in this matter, or could otherwise be considered to be potentially affected under the law. Failure to notify a person who is later determined to be potentially affected could result in voiding our decision on procedural grounds. To ensure conformance with the Administrative Adjudication Act and to avoid reversal of a decision, please list all such parties. Use additional sheets if necessary.

NAME _____ NAME _____

STREET _____ STREET _____

CITY, STATE, ZIP _____ CITY, STATE, ZIP _____

NAME _____ NAME _____

STREET _____ STREET _____

CITY, STATE, ZIP _____ CITY, STATE, ZIP _____

NAME _____ NAME _____

STREET _____ STREET _____

CITY, STATE, ZIP _____ CITY, STATE, ZIP _____

CHECK APPROPRIATE BOX

- [x] Construction Permit
- [ ] Operation Permit
- [ ] Variance
- [ ] Other _____

ADDRESS OF SITE:

Street 1001 N. Hurricane st.

City Franklin

Please complete this form by signing the following statement:

I certify that to the best of my knowledge I have listed all potentially affected parties, as defined by IC 4-21.5, known to me. If none are listed it signifies that no such parties are known.

SIGNATURE [signature]

PRINTED NAME DOUGLAS A LOGAN

COMPANY Arvin Industries Inc.

DATE 1-6-94

FULLER
engineering sales corp.
6420 Ferguson Street • Indianapolis, IN 46220 • (317) 253-3287 • FAX (317) 257-5848

GAS 3.0 MMBTU/hr
7.2
10.2

450,000 units/yr proposed = 51/hr

Coating

111 units/hr = potentially 972,360

Controlled Emissions = 71.7 tons VOC/yr
4.3 tons PM/yr Assume $PM = PM_{10}$

@ 51 units/hr = 450,000 units/yr

Controlled Emissions = 33.4 tons VOC/yr
2.0 tons PM/yr.

Combustion

$$\left(10.2\ \frac{MMBTU}{hr}\right)\left(\frac{1\ MMCF}{1000\ MMBTU}\right)\left(8760\ \frac{hr}{yr}\right) = 89.4\ \frac{MMCF}{yr}$$

From EPA 450/4-90-003 SCC # 1-02-006-02

$$PM = PM_{10} = \left(3.0\ \frac{lb}{MMCF}\right)\left(89.4\ \frac{MMCF}{yr}\right)\left(\frac{1\ ton}{2000\ lb}\right) = 0.1\ \frac{ton}{yr}$$

$$SO_2 = \left(0.6\ \frac{lb}{MMCF}\right)\left(89.4\ \frac{MMCF}{yr}\right)\left(\frac{1\ ton}{2000\ lb}\right) = 0.0\ \frac{ton}{yr}$$

$$NO_x = \left(140.0\ \frac{lb}{MMCF}\right)\left(89.4\ \frac{MMCF}{yr}\right)\left(\frac{1\ ton}{2000\ lb}\right) = 6.3\ \frac{ton}{yr}$$

$$VOC = \left(2.8\ \frac{lb}{MMCF}\right)\left(89.4\ \frac{MMCF}{yr}\right)\left(\frac{1\ ton}{2000\ lb}\right) = 0.1\ \frac{ton}{yr}$$

$$CO = \left(35.0\ \frac{lb}{MMCF}\right)\left(89.4\ \frac{MMCF}{yr}\right)\left(\frac{1\ ton}{2000\ lb}\right) = 1.6\ \frac{ton}{yr}$$

For

Address | Date

Used On | Drawn By | No.

Revisions

FOR ASSISTANCE PLEASE CONTACT JIM STONE

FULLER
engineering sales corp.
6420 Ferguson Street • Indianapolis, IN 46220 • (317) 253-3287 • FAX (317) 257-5848

TOTAL EMISSIONS FROM MODIFICATION:

EMISSION IN TONS/YR

POLLUTANT	COMBUSTION	POT. COATING	CONTROLLED AND LIMITED COATING	TOTAL POT.	TOTAL CONTROLLED LIMITED
PM	0.1	43.2	4.3	43.3	4.4
PM_{10}	0.1	43.2	4.3	43.3	4.4
SO_2	0.0	0.0	0.0	0.0	0.0
NO_x	6.3	0.0	0.0	6.3	6.3
VOC	0.1	71.7	33.2	71.8	33.3
CO	1.6	0.0	0.0	1.6	1.6

LIMITED TO 450,000 UNITS/YR AND USING PARTICULATE FILTERS
VOC EMISSIONS < 40 TONS/YR (33.3 < 40) AND
PM_{10} EMISSIONS < 15 TONS/YR (4.4 < 15) THEREFORE

MODIFICATION IS MINOR FOR PSD PURPOSES.

COATING FACILITY IS SUBJECT TO 326 IAC 8-2-9.
MUFFLERS ARE EXTREME DUTY PRODUCTS ∴ VOC LIMIT IS 3.5 lb/GAL
AS 3.43 < 3.5 COATING COMPLIES WITH 326 IAC 8-2-9

NO NSPS APPLIES

NO NESHAP APPLIES

For

Address | Date

Used On | Drawn By | No.

Revisions

FOR ASSISTANCE PLEASE CONTACT JIM STONE

ARVIN
NORTH AMERICAN AUTOMOTIVE

081-3535

INTERIM APP.

February 4, 1994

By Hand Delivery

Ms. Kathy Prosser, Commissioner
Indiana Department of Environmental Management
100 North Senate Avenue
Indianapolis, Indiana 46207

Subject: Interim Construction Permit
Arvin North American Automotive
Franklin, Indiana

Dear Ms. Prosser:

As the owner of an existing air pollution source built and operating at 1001 Hurricane Street, Franklin, Indiana in accordance with 326 IAC 2-1, Arvin Industries, Inc. is petitioning for an interim construction permit under 326 IAC 2-1-3.1. This action is necessary in order to prevent serious financial hardship for Arvin Industries, its employees, and the community. The production line including the proposed coating system is a $3 million investment that will employ 40 people and produce about $20 million in sales annually. Failure to meet the customer's requirement for capability demonstration will mean the loss of jobs, sales, and investment as the product will be left with the present model year supplier.

While the line that includes the proposed paint system will not begin production until July 1994, the customer requires Arvin to demonstrate system capability in advance. In fact, the customer demands that the paint system be ready for production on March 28, 1994. The customer requires such a long lead time in order to make certain that problems can be resolved before production starts.

Arvin proposes to construct the new source as described in the construction permit application submitted on January 6, 1994 and modified on January 27, 1994, a copy of which is attached. Limits on raw material consumed, fuel combusted, hours of operation, and emission rate in the permit application clearly demonstrate that the proposed source does not qualify as a major PSD source or modification.

The proposed source is not subject to New Source Performance Standards under 40 CFR 60, National Emission Standards for Hazardous Air Pollutants under 40 CFR 61, or National Emission Standards for Hazardous Air Pollutants for Source Categories under 40 CFR 63. The proposed source will be subject to the provisions of 326 IAC 8-2-9, for miscellaneous metal coating operations, and will be limited to 0.42 kg VOC/l coating (3.5 lb VOC/gal coating) at the applicator as this is an extreme performance coating. All solvent sprayed from application during cleanup shall be directed into containers, containers for waste solvent shall be closed except when solvent is being sprayed, and the waste solvent shall be managed in such a manner as to minimize evaporation.

CONTACT: DOUG LOGAN (812) 379-3575

1531 13th Street, Box Number 3002, Columbus, Indiana 47202 Phone: 812/379-3000 a division of Arvin Industries, Inc.

Arvin Industries, Inc. consents to federal enforcement of the proposed interim construction permit.

I certify that I am the individual in charge of operations at the facility described above and that the information in this petition is true and complete to the best of my knowledge and belief. I am aware that there are substantial penalties, including fines and jail terms, for intentionally submitting false or misleading information.

James Stegemiller
Plant Manager

Attachments
1. Affidavit
2. Copy of January 6, 1994 construction permit application, as modified

Affidavit
for Interim Construction Permit

I, James Stegemiller, Plant Manager of the Arvin Industries, Inc. facility at 1001 Hurricane St., Franklin, Indiana, 46131, hereby state the following as required by 326 IAC 2-1-3.1(b)(2)(E):

Arvin Industries, Inc. will proceed with the project described in the February 4, 1994 interim construction permit petition at its own risk, including but not limited to:

1. Financial risk,

2. The risk that the commissioner will require additional or different control technologies in order for a final construction permit or registration to be approved under applicable law, and

3. The risk that the commissioner might deny issuance of the final construction permit.

James Stegemiller
James Stegemiller
Plant Manager

Subscribed and sworn or affirmed to before me this 4th day of February, 1994. IN TESTIMONY WHEREOF, I, Mark J. Adolay, have hereunto set my hand and official seal.

Mark J. Adolay, a Notary Public for the County of Marion , State of Indiana.

My commission expires April 14, 1994

ARVIN
NORTH AMERICAN
AUTOMOTIVE

January 6, 1994

By Hand Delivery

Ms. Kathy Prosser
Indiana Department of Environmental Management
105 South Meridian Street
Indianapolis, Indiana 46206-6015

Subject: Air Pollution Construction
Permit Application
Arvin North American Automotive
Franklin, Indiana

Dear Ms. Prosser:

The permit application for a new air pollution source at the Arvin North American Automotive (NAA) facility in Franklin, Indiana is enclosed. The proposed source is in addition to existing sources at this location that are registered under ID number 081-00020 (6 November 1992). No changes to the existing sources or operations are proposed at this time.

The proposed source is required to meet the needs of a new program that will produce approximately 450,000 exhaust systems for a large North American automobile manufacturer. The target for full operation of the new production line is July 1994. To the best of our knowledge and belief, the information included in this application is true, correct, and accurate. NAA will make every effort to ensure that changes in the process or schedule conform to Indiana regulations.

Please contact me at (812) 379-3575 if there are any questions or problems about this matter.

Sincerely,

Douglas A. Logan, P.E.
Director of Environmental Affairs

BACT Analysis

Arvin North American Automotive
Franklin, Indiana
January 6, 1994

Economic analysis of control options for the proposed source is based on potential VOC emissions estimated at 149,000 pounds/year. Cost estimates and analysis are based on the OAQPS Control Coast Manual (4th ed., January 1990). Equipment costs were scaled from 3rd quarter 1989 values to 3rd quarter 1993 (most recent available) using the Marshal & Swift Equipment Cost Index published monthly in **Chemical Engineering** magazine.

Only thermal oxidation systems were studied. Activated carbon adsorption is not feasible because of the possibility of fouling the bed with entrained particulate matter. Catalytic incineration is not feasible because of the risk that the catalyst bed might be poisoned by the silicone resin used in the coating.

Utility cost estimates neglect the heating value of VOC pollutants in the spray booth exhaust. For this application, the VOC concentration is considered too low to contribute significantly to the heating value.

None of the options studied appear to be cost effective for this application.

Control Option #1 - Regenerative Thermal Oxidation

Capital Cost

30,000 SCFM regenerative thermal oxidation unit, 95% recovery sized per Equation 3.28, OAQPS Control Cost Manual, 4th Ed.	$612,000
Instrumentation, taxes, and freight @ 18%	110,000
Purchased Equipment Cost (PEC)	722,000
Installation direct costs @ 30% PEC	217,000
Installation indirect costs @ 31% PEC	224,000
Total Capital Cost (TCC)	$1,163,000

Annual Cost

1. Labor	
a. operator (1/2 hr/shft, 500 shft/yr @ $12.00/hr)	$3,000
b. supervisor @ 15% 1a	500
2. Maintenance	
a. labor (1/2 hr/shft, 500 shft/yr @ $14.00/hr)	3,500
b. materials @ 100% 2a	3,500
3. Utilities, per OAQPS Manual	
a. electricity - 175.5 kW, 4,000 hr/yr @ $0.065/kWh	45,600
b. natural gas - 2.7 MCF/hr, 4,000 hr/yr @ $4.00/MCF	43,200
4. Overhead @ 60% (1a+1b+2a)	4,200
5. Administration, property taxes, and insurance @ 4% TCC	46,500
6. Capital recovery @ 10 yr. and 10% (0.1628)	189,000
Total Annual Cost	$339,000
VOC reduction (149,000 lb. generated @ 98% removal)	146,000
Annual cost per pound of VOC removed	$2.32

Control Option #2 - Regenerative Thermal Oxidation With Recirculating Air

Capital Cost

Single 10,000 SCFM regenerative thermal oxidation unit, 95% recovery sized per Equation 3.28, OAQPS Control Cost Manual, 4th Ed.	$362,000
Additional ductwork for recirculating 67% of spray booth air	80,000
Instrumentation, taxes, and freight @ 18%	65,000
Purchased Equipment Cost (PEC)	507,000
Installation direct costs @ 30% PEC	152,000
Installation indirect costs @ 31% PEC	157,000
Total Capital Cost (TCC)	$816,000

Annual Cost

1. Labor	
a. operator (1/2 hr/shft, 500 shft/yr @ $12.00/hr)	$3,000
b. supervisor @ 15% 1a	500
2. Maintenance	
a. labor (1/2 hr/shft, 500 shft/yr @ $14.00/hr)	3,500
b. materials @ 100% 2a	3,500
3. Utilities, per OAQPS Manual	
a. electricity - 58.5 kW, 4,000 hr/yr @ $0.065/kWh	15,200
b. natural gas - 0.9 MCF/hr, 4,000 hr/yr @ $4.00/MCF	14,400
4. Overhead @ 60% (1a+1b+2a)	4,200
5. Administration, property taxes, and insurance @ 4% TCC	32,600
6. Capital recovery @ 10 yr. and 10% (0.1628)	133,000
Total Annual Cost	$210,000
VOC reduction (149,000 lb. generated @ 98% removal)	146,000
Annual cost per pound of VOC removed	$1.44

Control Option #3 - Recuperative Thermal Oxidation With Recirculating Air

Capital Cost

10,000 SCFM recuperative thermal oxidation unit, 70% recovery sized per Equation 3.27, OAQPS Control Cost Manual, 4th Ed.	$230,000
Additional ductwork for recirculating 67% of spray booth air	80,000
Instrumentation, taxes, and freight @ 18%	41,000
Purchased Equipment Cost (PEC)	351,000
Installation direct costs @ 30% PEC	105,000
Installation indirect costs @ 31% PEC	109,000
Total Capital Cost (TCC)	$565,000

Annual Cost

1. Labor	
a. operator (1/2 hr/shft, 500 shft/yr @ $12.00/hr)	$3,000
b. supervisor @ 15% 1a	500
2. Maintenance	
a. labor (1/2 hr/shft, 500 shft/yr @ $14.00/hr)	3,500
b. materials @ 100% 2a	3,500
3. Utilities, per OAQPS Manual	
a. electricity - 37.05 kW, 4,000 hr/yr @ $0.065/kWh	9,600
b. natural gas - 9 MCF/hr, 4,000 hr/yr @ $4.00/MCF	144,000
4. Overhead @ 60% (1a+1b+2a)	4,200
5. Administration, property taxes, and insurance @ 4% TCC	22,600
6. Capital recovery @ 10 yr. and 10% (0.1628)	92,000
Total Annual Cost	$283,000
VOC reduction (149,000 lb. generated @ 98% removal)	146,000
Annual cost per pound of VOC removed	$1.94

IDENTIFICATION OF POTENTIALLY AFFECTED PERSONS

Please read the attached letter from the Commissioner, and list here any persons whom you have reason to believe have a substantial or proprietary interest in this matter, or could otherwise be considered to be potentially affected under the law. Failure to notify a person who is later determined to be potentially affected could result in voiding our decision on procedural grounds. To ensure conformance with the Administrative Adjudication Act and to avoid reversal of a decision, please list all such parties. Use additional sheets if necessary.

NAME _____ NAME _____

STREET _____ STREET _____

CITY, STATE, ZIP _____ CITY, STATE, ZIP _____

NAME _____ NAME _____

STREET _____ STREET _____

CITY, STATE, ZIP _____ CITY, STATE, ZIP _____

NAME _____ NAME _____

STREET _____ STREET _____

CITY, STATE, ZIP _____ CITY, STATE, ZIP _____

CHECK APPROPRIATE BOX

- [X] Construction Permit
- [ ] Operation Permit
- [ ] Variance
- [ ] Other _____

ADDRESS OF SITE:

Street 1001 N. Hurricane st.

City Franklin

Please complete this form by signing the following statement:

I certify that to the best of my knowledge I have listed all potentially affected parties, as defined by IC 4-21.5, known to me. If none are listed it signifies that no such parties are known.

SIGNATURE [signature]

PRINTED NAME DOUGLAS A LOGAN

COMPANY Arvin Industries Inc.

DATE 1-6-94

STATE OF INDIANA
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR MANAGEMENT
CONSTRUCTION PERMIT APPLICATION

FORM A-C

GENERAL INFORMATION

Company Name Arvin Industries, Inc. Franklin Plant

Phone (317) 736-7111

Mailing Address 1001 N. Hurricane (Street, P.O. Box) Franklin (City) 46131 (Zip Code)

New Construction Location 1001 N. Hurricane (No., St., Rd., Hwy.) Franklin (City) Johnson (County)

Person to Contact on Matters of Air Pollution:

Name Douglas A. Logan

Title Director Environmental Affairs & Safety Phone (812) 379-3000

If you have changed company name or location in the past six (6) years, please list the previous name(s) and location(s):

Name

Location

Standard Industrial Classification Code 3714
(if you do not know, a short description of business will suffice)

What is being installed? Production Line for Automotive pipe & muffler assemblies.

Is construction an entirely new plant? NO

Estimated Cost of Project$ 3.2 Million

Estimated Cost of Air Pollution Control Equipment$ 340,000

Estimated date construction will start January 1994

Estimated date construction will be complete June 1994

Estimated date operation will begin July 1994

I hereby certify that the information submitted this 6TH day of JANUARY 19 94 is true and correct to the best of my knowledge.

Signature

Title Vice President

Plans and Specifications Approved By:

Indiana P.E. License No. 910175

DOUGLAS A. LOGAN REGISTERED No. 910175 STATE OF INDIANA PROFESSIONAL ENGINEER

STATE OF INDIANA
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR MANAGEMENT

FORM B

Plant Layout and GEP Stack Height Information Sheet

Company Name Arvin Industries, Inc. Franklin Plant

This permit application must include a plant layout(s) showing the following information:

1. Drawings, several, if necessary, but each one must be to scale, with actual scale shown. All dimensions must be clearly indicated. This includes building heights, widths, and lengths, and their distance relationship with the property line. It should also indicate where fences or other access-limiting features exist.

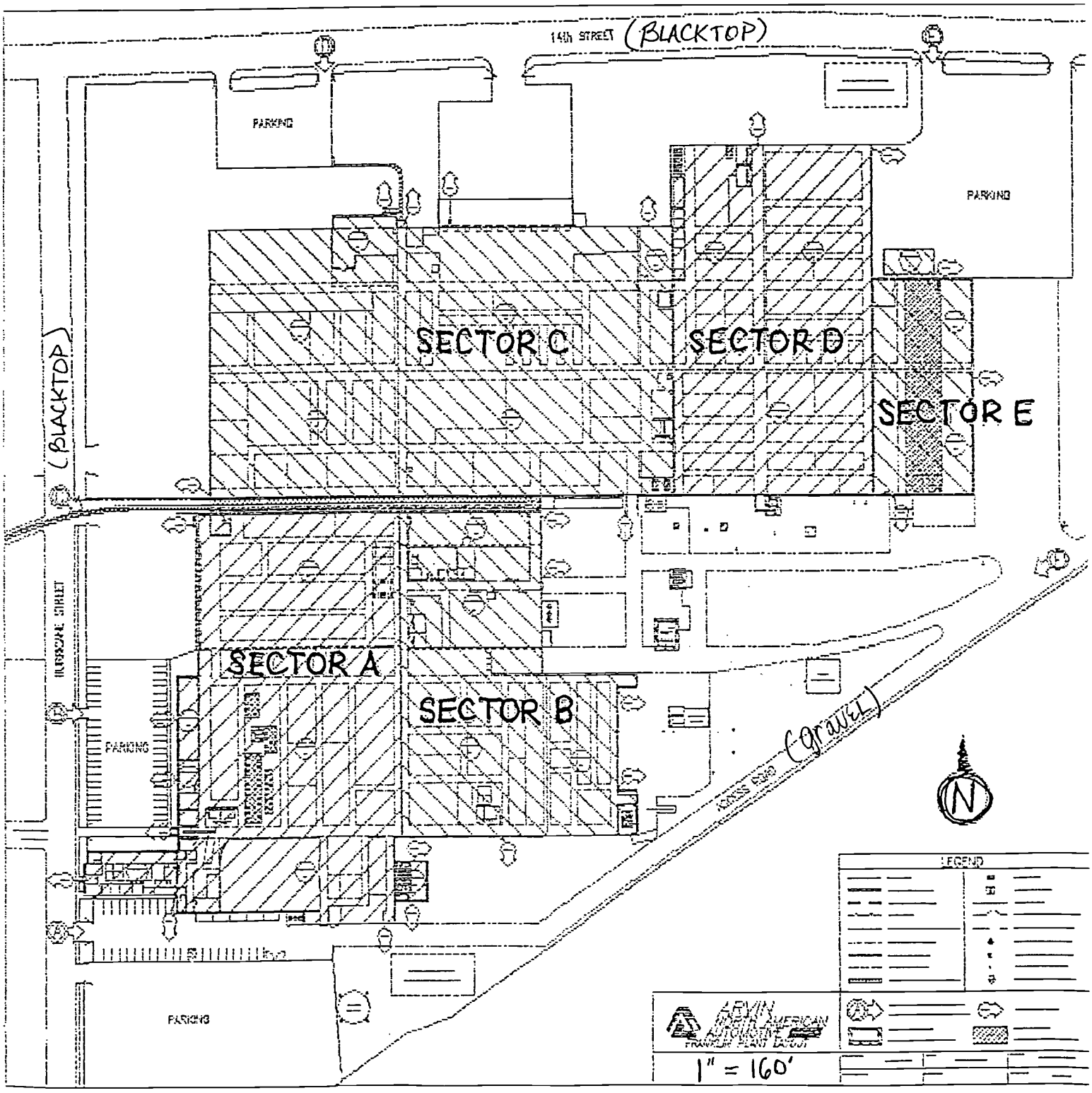
2. The layout must show the location of all emission points (exhaust stacks, roof monitors, control devices, or process vents, etc.). Identify each of these emission points under "Stack Identification" on the appropriate forms.

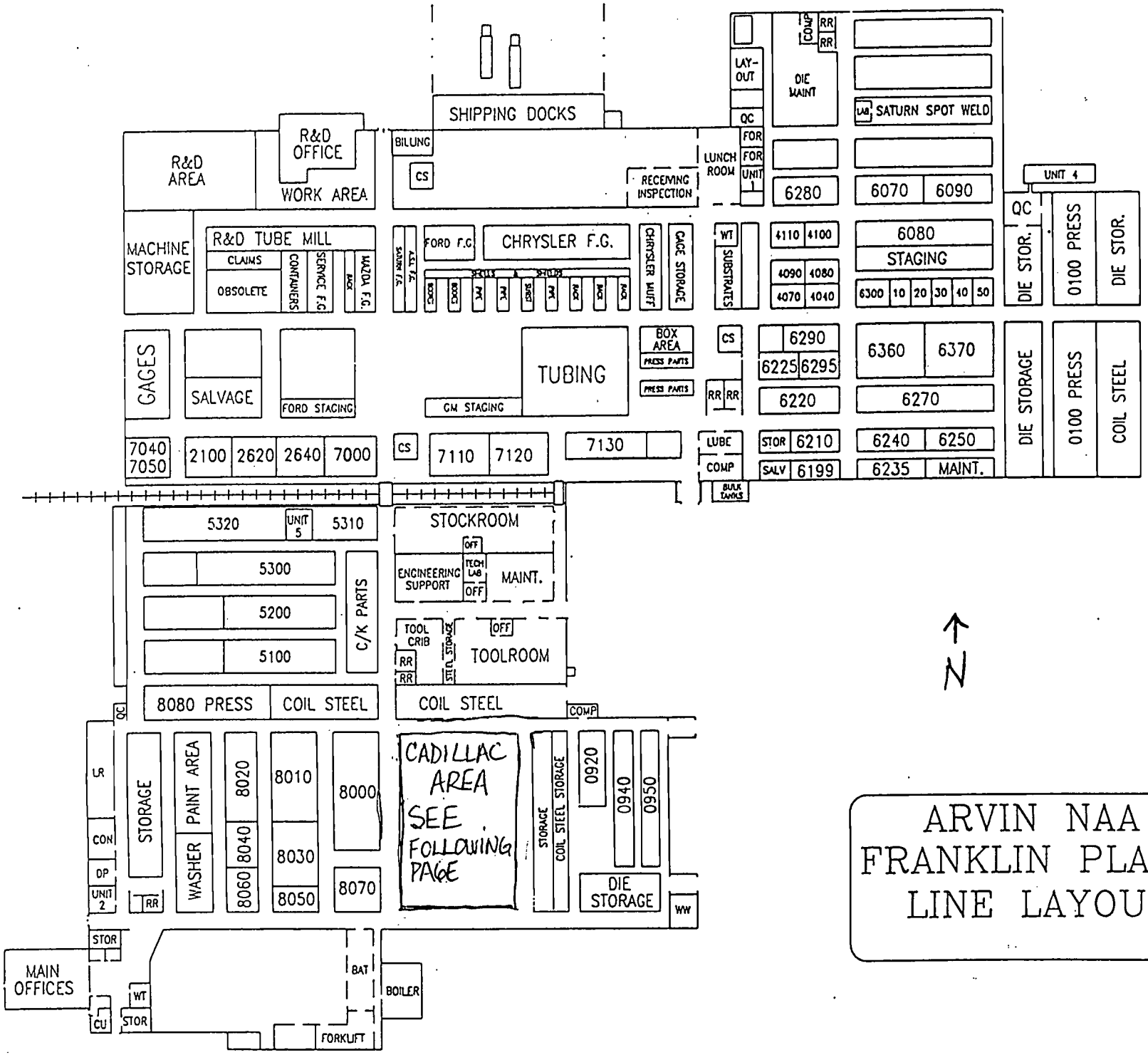
3. The layout(s) must show all roadways and description of roadway surfaces.

4. The layout(s) must include a compass pointing north.

SEE ATTACHED SHEETS

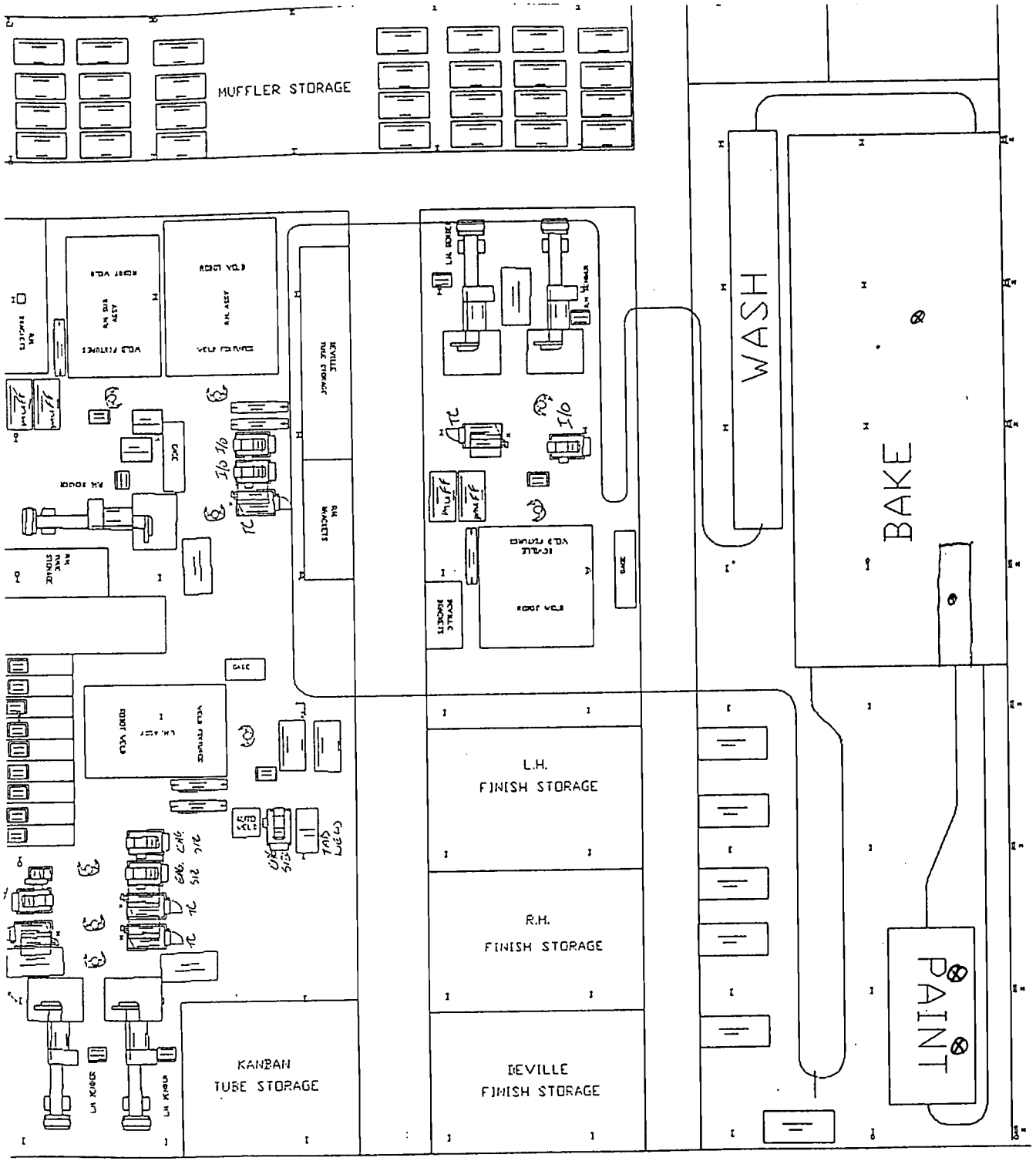
PLANT LAYOUT





ARVIN NAA
FRANKLIN PLANT
LINE LAYOUT

CADILLAC AREA



OVEN EXHAUST
1 - 12" ϕ
7500 CFM

IR PREHEAT EXHAUST
1 - 12" ϕ
7500 CFM

N

BOOTH EXHAUST
2 - 30" ϕ
30000 CFM TOTAL

FORM C

STATE OF INDIANA
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR MANAGEMENT

Incinerator Information

Not Applicable XXX

Company Name Arvin Industries, Inc. Franklin Plant

Manufacturer _____ Model _____

(Furnish sketch with dimensions)

Design Capacity _____ lb/hr _____ Btu/hr

Type of Waste Burned (Be Specific) _____

_____

Check one: Single Chamber w/Afterburner _____ Multiple Chambers _____

Burner in Primary Chamber? Yes _____ No _____

Burner in Secondary Chamber? Yes _____ No _____

Type of Fuel _____

Chamber	Primary	Secondary
Residence Time (sec)	_____	_____
Temperature (°F)	_____	_____

STACK DATA

Stack Identification _____

Height (ft above ground) _____

Diameter (ft inside) _____

Gas discharge Temperature (°F) _____

Gas Flow Rate (acfm) _____

OPERATION SCHEDULE

Hours/Day _____

Days/Week _____

Weeks/Year _____

Manufacturer's Guaranteed Emission Rate (lb particulate matter per 1,000 lb dry exhaust gas at 70°F and 1 atm, corrected to 50 % excess air) _____

Revised 9/22/83

FORM D

STATE OF INDIANA
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR MANAGEMENT

Fuel Combustion Information
Boilers, Heaters, Ovens or other Fuel Combustion Units (FCU)

Not Applicable_____

Company Name Arvin Industries, Inc. Franklin Plant

Type of FCU	Burner	Burner
FCU Identification	Washer Stage 1	Washer Stage 2
Method of Fuel Feed		
* Capacity (MM Btu/hr input)	1.5	1.5
** Fire Box Volume (cu ft)		
Start of Construction Date	1-94	1-94
Start of Operation Date	7-94	7-94
FUEL		
Type Used	Natural gas	Natural gas
% Ash Min/Max (solid fuel only)		
% Sulfur Min/Max		
Higher Heating Value Min/Max	1 MM BTU/1 MCF	1 MM BTU/1 MCF
Amount Burned/Yr (ton, cu ft, gal)	6000 MCF	6000 MCF
EMISSION CONTROL UNIT		
Type of PM Emission Control Unit	NONE	NONE
% Efficiency		
Type of SO2 Emission Control Unit	NONE	NONE
% Efficiency		
Type of NOx Emission Control Unit	NONE	NONE
% Efficiency		
STACK DATA		
Stack Identification	Exhaust through oven	Exhaust through oven
Height (ft above ground)		
Diameter (ft inside)		
Gas Discharge Temperature (°F)		
Gas Flow Rate (acfm)		
OPERATION SCHEDULE		
Hours/Day	16	16
Days/Week	5	5
Weeks/Year	50	50

* note: MM = million
** complete only if boiler over 100 MM Btu/hr

Revised 10-25-88

FORM D

STATE OF INDIANA
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR MANAGEMENT

Fuel Combustion Information
Boilers, Heaters, Ovens or other Fuel Combustion Units (FCU)

Not Applicable_____

Company Name Arvin Industries, Franklin Plant

Type of FCU	Burner	Burner
FCU Identification	Washer Stage 5	Oven
Method of Fuel Feed		
* Capacity (MM Btu/hr input)	.8	6.4
** Fire Box Volume (cu ft)		
Start of Construction Date	1-94	1-94
Start of Operation Date	7-94	7-94
FUEL		
Type Used	Natural gas	Natural gas
% Ash Min/Max (solid fuel only)		
% Sulfur Min/Max		
Higher Heating Value Min/Max	1 MM BTU/1 MCF	1 MM BTU/1 MCF
Amount Burned/Yr (ton, cu ft, gal)	3200 MCF	26,600 MCF MAXIMUM
EMISSION CONTROL UNIT		
Type of PM Emission Control Unit	NONE	NONE
% Efficiency		
Type of SO2 Emission Control Unit	NONE	NONE
% Efficiency		
Type of NOx Emission Control Unit	NONE	NONE
% Efficiency		
STACK DATA		
Stack Identification	Exhaust through oven	oven Exhaust
Height (ft above ground)		30'
Diameter (ft inside)		1'
Gas Discharge Temperature (°F)		450°
Gas Flow Rate (acfm)		7500 CFM
OPERATION SCHEDULE		
Hours/Day	16	16
Days/Week	5	5
Weeks/Year	50	50

* note: MM = million
** complete only if boiler over 100 MM Btu/hr

Revised 10-25-88

STATE OF INDIANA
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR MANAGEMENT

FORM E

Process Information

Not Applicable _____

Company Name Arvin Industries, Inc.

Products Produced Automotive pipe & muffler assemblies

Raw Material Rate (use an additional sheet if needed)

TYPE MATERIAL	RATE (LB/HR)
WABASH KB809HSHH	58

Finished Product

Pounds/Hour Maximum Not Determined Normal _____

Process and Control Equipment (Use an additional sheet if needed)
Process Identification:

1 Binks paint booth W/ parts washer, Dry off & Bake oven.

Type of Control Andreae filter
Efficiency 90%
For Dry Collectors, Tons/year Collected N/A
STACK DATA
Stack Identification NONE

Height (ft. above ground) 29' agl

Diameter (ft. inside) 2.83'

Gas Discharge Temperature (Deg F) Ambient

Gas Flow Rate (acfm) 30,000 cfm

Operation Schedule

Hours/Day 16
Days/Week 5
Weeks/Year 50

STATE OF INDIANA
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR MANAGEMENT

FORM F

Flow Diagram

Not Applicable___ ___

Company Name Arvin Industries, Franklin Plant

This permit application must include a simple flow diagram of your operation from raw materials input to the finished products. Show points of emission including stacks. Show location of air pollution control equipment, the process it controls, and removal efficiency. State the maximum hourly capacity of each step of the operation.

*Please see attached sheet.

STATE OF INDIANA
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR MANAGEMENT

FORM G

Storage and Handling of Bulk Material

Not Applicable xxx

Company Name Arvin Industries, Inc., Franklin Plant

Material Handled or Stored	Method of Handling	Silo, Bin or Pile	Storage Capacity (Tons)	Maximum Throughput (Tons/Yr)	(Lb/Hr)

Dust Control Methods

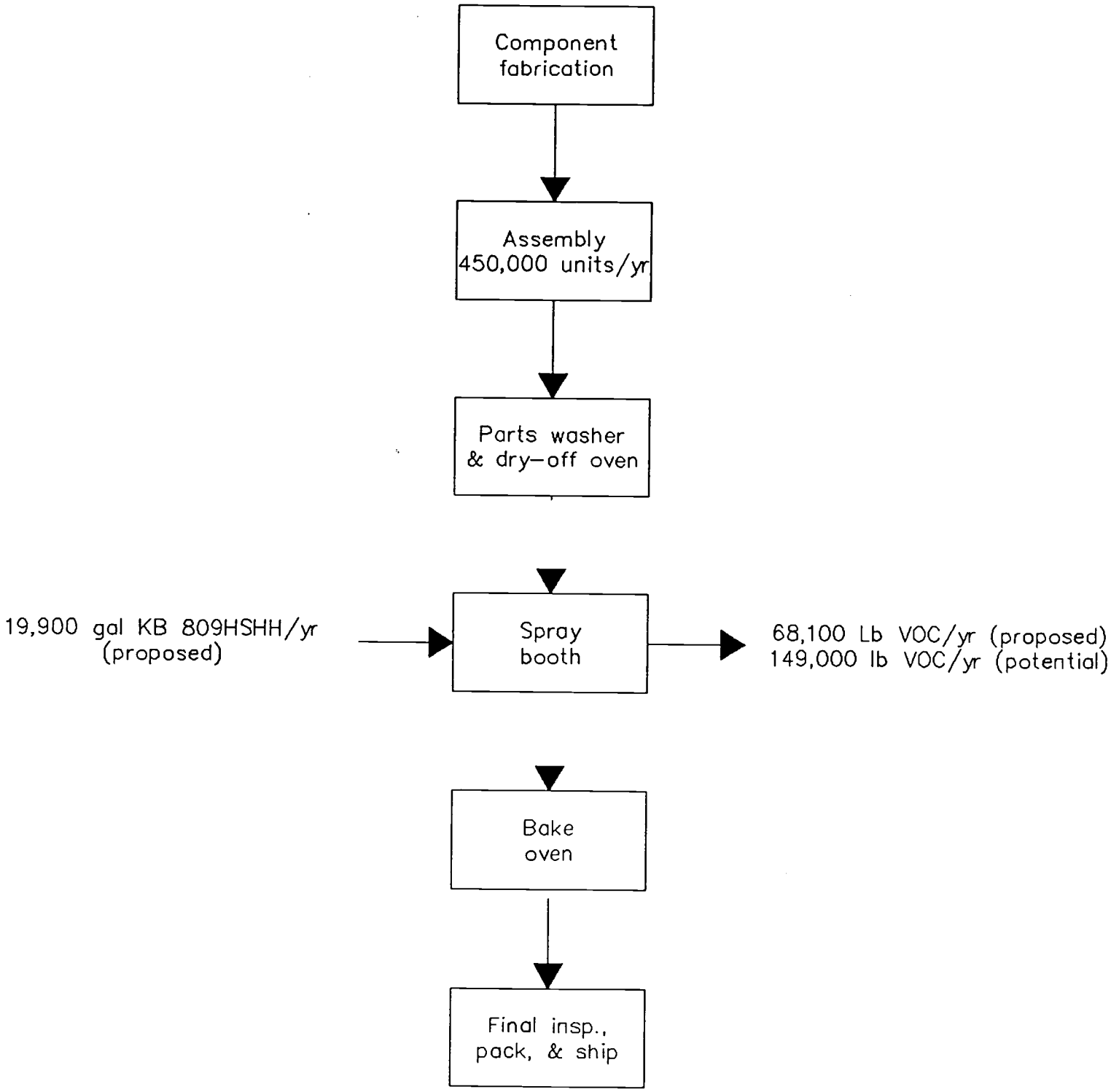
Process

Type of Control

Efficiency

Process Flow Diagram

Arvin NAA
Franklin Plant
January 6, 1994



FORM Q

Indiana Department of Environmental Management
Office of Air Management

PARTICULATE CONTROL DEVICES

GENERAL INFORMATION

Emission point identification (complete a separate page for each device) Spray booth exhaust

Percent of Particulate Matter less than 10 microns at the outlet Not known %

Grain loading per actual cubic foot of outlet air .01, Average gas Temperature Ambient °F

Design percentage collection efficiency 90 % (1- Weight Leaving) X100
(Weight Entering)

SPECIFIC COLLECTOR INFORMATION

A. CYCLONE

Number of tubes_____, Tube diameter _____in.

B. BAGHOUSE

Bag material_____

Total filter area_____ft^2, Air to cloth ratio_____$acfm/ft^2$

Pressure drop across baghouse_____inches of water

Method of bag cleaning (ie. shaking, jetpulse etc...)_____

C. ELECTROSTATIC PRECIPITATOR (ESP)

Type of ESP: Wet_____, Dry_____, Hot Side_____, Cold Side_____

Face velocity across the plates_____ft/sec, Total face surface area_____ft^2

Number of fields along flow path_____, Gas conditioning agent_____

Delay time between starting of system and ESP unit operation_____

Why?_____

D. WET COLLECTORS (Scrubber Type_____)

Pressure drop across scrubber_____inches of water, Flow Rate_____gpm

Scrubbing liquor_____, Liquid to air ratio_____$gpm/10^3 acfm$

Is there a demister following the scrubber?_____

Settling pond: volume_____ft^3, Depth_____ft, Width_____ft, Length_____ft,

Diameter (if circular)_____ft

Revised 8/11/88

STATE OF INDIANA
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR MANAGEMENT

SURFACE COATING AND ACCESSORY SOLVENTS

Company Name Arvin Industries, Inc. Franklin Plant

1 Material (Coatings, Solvents, Etc.)	2 Identification Number	3 Material Density Lb / Gal	4 Weight % Volatiles (Water and Organics)	5 Weight % Water	6 Volume % Water	7 Volume % Non-volatiles (Solids)	8 Gallons of Material* Required for One Production Unit Gal / Production Unit	9 Maximum Number of Production Units per Hour	10 Actual** Usage Gal/Yr	11 Process or Booth I. D.
Coatings	KB809HSHH	11.7	.293	0	0	52	.043	111		Binks

* If different types or sizes of units are coated in the same paint booth with the same coating, this amount should be based on the production unit requiring the most gallons per hour. Gallons per hour = Column 8 x Column 9. If different coatings are used, they must be listed as a separate material.
** Complete this column for operation permit renewals only.

Attach a Material Safety Data Sheet (MSDS) for each material listed. DO NOT SEND THE ENTIRE MSDS. The required sections are: Section I (Product Identification), Section II (Composition Information), and Section III (Physical Property Information).

Density, Weight % Volatiles, and Weight % Water are determined by methods listed in 326 IAC 8-1-4

Revised 7-16-91

Form W-1

Form W-2

STATE OF INDIANA
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR MANAGEMENT

SURFACE COATING AND ACCESSORY SOLVENTS

Company Name Arvin Industries Inc., Franklin Plant

Process or Booth Identification (1)	Cadillac line BINKS			
Application Method (2)	Spray			
If sprayed Specify type (3)	HVLP			
Type of Overspray controls (4)	Dry filter			
Control Efficiency	90%			
Type of Hydrocarbon controls (5)	NONE			
Control Efficiency	N/A			
Stack Height (feet above ground)	29 feet			
Stack Diameter (inches)	30 inches			
Exhaust flow Rate (acfm)	30,000 CFM			
Exhaust Discharge Temperature °F	Ambient			

Operating Schedule: 16 hours/day 5 days/week 50 weeks/year

1. Use identifiers from forms B and F.

2. Method of application refers to dipping, spraying, rollcoating, brushing, flowcoating, or other.

3. Types of spray coating include: air atomization, airless, electrostatic disc, electrostactic airless, electrostatic air atomized, low pressure air atomization, low pressure-high volume, or other.

4. Overspray controls include: dry and wet filters, baffles, waterwash, or other.

5. Hydrocarbon controls include: catalytic or direct flame incineration, solvent recovery, carbon adsorption, or other.

Revised 8-23-88

FORM Y1
7-29-91

STATE OF INDIANA
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR MANAGEMENT

Air Toxic Pollutants

Company Name Arvin Industries, Inc.

Location Franklin Plant

Place an "X" beside each compound listed on forms Y1 through Y4 that will be emitted into the air from the equipment covered in this application. Attach **Sections I, II, and III (only)** of Material Safety Data Sheets (MSDS) for each toxic containing material. List all emission points (as identified on the site plot plan) for each compound. **Include stack parameters for each listed air toxic emission point on the appropriate form.**

X	CAS NUMBER	CHEMICAL NAME	EMISSION POINTS	MAXIMUM EMISSION RATE (POUNDS/HR)
___	00075070	Acetaldehyde		
___	00060355	Acetamide		
___	00075058	Acetonitrile		
___	00098862	Acetophenone		
___	00053963	2-Acetylaminofluorine		
___	00107028	Acrolein		
___	00079061	Acrylamide		
___	00079107	Acrylic Acid		
___	00107131	Acrylonitrile		
___	00107051	Allyl chloride		
___	00092671	4-Aminodiphenyl		
___	00062533	Aniline		
___	29191524	o-Anisidine		
___	01332214	Asbestos		
___	00071432	Benzene (including from gasoline)		
___	00092875	Benzidine		
___	00098077	Benzotrichloride		
___	00100447	Benzyl chloride		
___	00092524	Biphenyl		
___	00117817	Bis (2-ethylhexyl) phthalate		
___	00542881	Bis(chloromethyl)ether		
___	00075252	Bromoform		
___	00106990	1,3-Butadiene		
___	00156627	Calcium cyanamide		
___	00105602	Caprolactam		
___	00133062	Captan		
___	00063252	Carbaryl		
___	00075150	Carbon disulfide		
___	00056235	Carbon tetrachloride		
___	00463581	Carbonyl sulfide		
___	00120809	Catechol (1,2-dihydroxylbenzene)		
___	00133904	Chloramben		
___	00057749	Chlordane		
___	07782505	Chlorine		
___	00079118	Chloroacetic acid		
___	00532274	2-Chloroacetophenone		
___	00108907	Chlorobenzene		
___	00510156	Chlorobenzilate		
___	00067663	Chloroform		
___	00107302	Chloromethyl methyl ether		
___	00126998	Chloroprene		
___	01319773	Cresols/Cresylic acid (isomers and mixtures)		
___	00095487	o-Cresol		
___	00108394	m-Cresol		
___	00106445	p-Cresol		
___	00098828	Cumene		
___	00095757	2,4-D, salts and esters		
	03547044	DDE		

FORM Y2
7-29-91

STATE OF INDIANA
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR MANAGEMENT

Air Toxic Pollutants

X	CAS NUMBER	CHEMICAL NAME	EMISSION POINTS	MAXIMUM EMISSION RATE (POUNDS/HR)
___	00334883	Diazomethane		
___	00132649	Dibenzofurans		
___	00096128	1,2-Dibromo-3-chloropropane		
___	00084742	Dibutylphthalate		
___	00106467	1,4-Dichlorobenzene (p)		
___	00091941	3,3-Dichlorobenzidene		
___	00111444	Dichloroethyl ether (Bis (2-chloroethyl)ether)		
___	00542756	1,3-Dichloropropene		
___	00062737	Dichlorvos (DDVP)		
___	00111422	Diethanolamine		
___	00121697	N,N-Diethyl aniline (N,N-Dimethylaniline)		
___	.00064675	Diethyl sulfate		
___	00119904	3,3'-Dimethoxybenzidine		
___	00060117	Dimethyl aminoazobenzene		
___	00119937	3,3'-Dimethyl benzidine		
___	00079447	Dimethyl carbamoyl chloride		
___	00068122	Dimethyl formamide		
___	00057147	1,1-Dimethyl hydrazine		
___	00131113	Dimethyl phthalate		
___	00077781	Dimethyl Sulfate		
___	00534521	4,6-Dinitro-o-cresol, and salts		
___	00051285	2,4-Dinitrophenol		
___	00121142	2,4-Dinitrotoluene		
___	00123911	1,4-Dioxane (1,4-Diethyleneoxide)		
___	00122667	1,2-Diphenylhydrazine		
___	00106898	Epichlorohydrine (1-Chloro-2,3-epoxypropane)		
___	00106887	1,2-Epoxybutane		
___	00140885	Ethyl acrylate		
___	00100414	Ethyl benzene		
___	00051796	Ethyl carbamate (Urethane)		
___	00075003	Ethyl chloride (Chloroethane)		
___	00106934	Ethylene dibromide (Dibromoethane)		
___	00107062	Ethylene dichloride (1,2-Dichloroethane)		
___	00107211	Ethylene Glycol		
___	00151564	Ethylene imine (Aziridine)		
___	00075218	Ethylene Oxide		
___	00096457	Ethylene thiourea		
___	00075343	Ethylidene dichloride (1,1-Dichloroethane)		
___	00050000	Formaldehyde		
___	00076448	Heptachlor		
___	00118741	Hexachlorobenzene		
___	00087683	Hexachorobutadiene		
___	00077474	Hexachlorocyclopentadiene		
___	00067721	Hexachloroethane		
___	00822060	Hexamethylene-1,6-diisocyanate		
___	00680319	Hexamethylphosphoramide		
___	00110543	Hexane		
___	00302012	Hydrazine		
___	07647010	Hydrochloric acid		
___	07664393	Hydrogen fluoride (Hydrofluoric acid)		
___	07788064	Hydrogen sulfide		
___	00123319	Hydroquinone		
___	00078591	Isophorone		
___	00058899	Lindane (all isomers)		
___	00108316	Maleic anhydride		
___	00067561	Methanol		
___	00072435	Methoxychlor		

FORM Y3
7-29-91

STATE OF INDIANA
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR MANAGEMENT

Air Toxic Pollutants

X	CAS NUMBER	CHEMICAL NAME	EMISSION POINTS	MAXIMUM EMISSION RATE (POUNDS/HR)
___	00074839	Methyl Bromide (Bromomethane)	___	___
___	00074873	Methyl chloride (Chloromethane)	___	___
___	00071556	Methyl Chloroform (1,1,1-Trichloroethane)	___	___
___	00078933	Methyl ethyl ketone (2-Butanone)	___	___
___	00060344	Methyl hydrazine	___	___
___	00074884	Methyl iodide (Iodomethane)	___	___
___	00108101	Methyl isobutyl ketone (Hexone)	___	___
___	00624839	Methyl isocyanate	___	___
___	00080626	Methyl methacrylate	___	___
___	01634044	Methyl tert butyl ether	___	___
___	00101144	4,4-Methylene bis(2-chloroaniline)	___	___
___	00075092	Methylene chloride (Dichloromethane)	___	___
___	00101688	Methylene diphenyl diisocyanate (MDI)	___	___
___	00101779	4,4'-Methylenedianiline	___	___
___	00091203	Naphthalene	___	___
___	00098953	Nitrobenzene	___	___
___	00092933	4-Nitrobiphenyl	___	___
___	00100027	4-Nitrophenol	___	___
___	00079469	2-Nitropropane	___	___
___	00684935	N-Nitroso-N-methylurea	___	___
___	00062759	N-Nitrosodimethylamine	___	___
___	00059892	N-Nitrosomorpholine	___	___
___	00056382	Parathion	___	___
___	00082688	Pentachloronitrobenzene(Quintobenzene)	___	___
___	00087865	Pentachlorophenol	___	___
___	00108952	Phenol	___	___
___	00106503	p-Phenylenediamine	___	___
___	00075445	Phosgene	___	___
___	07803512	Phosphine	___	___
___	07723140	Phosphorus	___	___
___	00085449	Phthalic anhydride	___	___
___	01336363	Polychlorinated biphenyls (Aroclors)	___	___
___	01120714	1,3-Propane sultone	___	___
___	00057578	beta-Propiolactone	___	___
___	00123386	Propionaldehyde	___	___
___	00114261	Propoxur (Baygon)	___	___
___	00078875	Propylene dichloride (1,2-Dichloropropane)	___	___
___	00075569	Propylene Oxide	___	___
___	00075558	1,2-Propylenimine (2-Methyl aziridine)	___	___
___	00091225	Quinoline	___	___
___	00106514	Quinone	___	___
___	00100425	Styrene	___	___
___	00096093	Styrene oxide	___	___
___	01746016	2,3,7,8-Tetrachlorodibenzo -p-dioxin	___	___
___	00079345	1,1,2,2-Tetrachloroethane	___	___
___	00127184	Tetrachloroethylene (Perchloroethylene)	___	___
___	07550450	Titanium tetrachloride	___	___
___	00108883	Toluene	___	___
___	00095807	2,4-Toluene diamine	___	___
___	00584849	2,4-Toluene diisocyanate	___	___
___	00095534	o-Toluidine	___	___
___	08001352	Toxaphene (chlorinated camphene)	___	___
___	00120821	1,2,4-Trichlorobenzene	___	___
___	00079005	1,1,2-Trichloroethane	___	___
___	00079016	Trichloroethylene	___	___
___	00095954	2,4,5-Trichlorophenol	___	___

FORM Y4
7-29-91

STATE OF INDIANA
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR MANAGEMENT

Air Toxic Pollutants

X	CAS NUMBER	CHEMICAL NAME	EMISSION POINTS	MAXIMUM EMISSION RATE (POUNDS/HR)
___	00088062	2,4,6-Trichlorophenol		
___	00121448	Triethylamine		
___	01582098	Trifluralin		
___	00540841	2,2,4-Trimethylpentane		
___	00108054	Vinyl acetate		
___	00593602	Vinyl bromide		
___	00075014	Vinyl Chloride		
___	00075354	Vinylidene chloride (1,1-Dichloroethylene)		
XX	01330207	Xylenes (isomers and mixture)	Booth	12.5
___	00095476	o-Xylenes		
___	00108383	m-Xylenes		
___	00106423	p-Xylenes		
___		Antimony Compounds		
___		Arsenic Compounds (inorganic including arsine)		
___		Beryllium Compounds		
___		Cadmium Compounds		
___		Chromium Compounds		
___		Cobalt Compounds		
___		Coke Oven Emissions		
___		Cyanide Compounds[1]		
XX		Glycol ethers[2]	Booth	2.0
___		Lead Compounds		
___		Manganese Compounds		
___		Mercury Compounds		
___		Mineral Fibers[3]		
___		Nickel Compounds		
___		Polycyclic Organic Matter[4]		
___		Radionuclides (Including Radon)[5]		
___		Selenium Compounds		
___		**NONE OF THE COMPOUNDS LISTED ON FORMS Y1 THROUGH Y4 WILL BE EMITTED FROM THE EQUIPMENT LISTED IN THIS APPLICATION.**		

NOTE: FOR ALL LISTINGS ABOVE WHICH CONTAIN THE WORD "COMPOUND" AND FOR GLYCOL ETHERS THESE LISTINGS ARE DEFINED AS INCLUDING ANY UNIQUE CHEMICAL SUBSTANCE THAT CONTAINS THE NAMED CHEMICAL AS PART OF THAT CHEMICAL'S INFRASTRUCTURE.

1 X'CN where X=H' or any other group where a formal dissociation may occur. For example KCN or $Ca(CN)_2$

2 includes mono- and di- ethers of ethylene glycol, diethylene glycol, and triethylene glycol R-(OCH2CH2)n-OR' where: n= 1, 2, or 3; R= alkyl or aryl groups; and R'= R, H, or groups which, when removed, yield glycol ethers with the structure R-(OCH2CH2)n-OH. Polymers are excluded from the glycol category.

3 includes mineral fiber emissions from facilities manufacturing or processing glass, rock, or slag fibers (or other mineral derived fibers) of average diameter 1 micrometer or less.

4 includes organic compounds with more than one benzene ring, and which have a boiling point greater than or equal to 100 degrees Celsius.

5 a type of atom which spontaneously undergoes radioactive decay.

DO NOT SEND ENTIRE MATERIAL SAFETY DATA SHEETS (MSDS). The required sections are: Section I (Product Identification), Section II (Composition Information), and Section III (Physical Property Information).

Emission Calculations - Surface Coating

Arvin Industries
Franklin, Indiana
David L. Whitmer, P.E.
02/07/94

Material	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
Coating KB809HSHH	11.70	29.3%	0.0%	29.3%	0.0%	52.0%	0.04300	111	**3.43**	**3.43**	16.4	392.7	71.7	43.2	6.59	75%
Total Potential Emission											16.4	392.7	71.7	43.2		
Control Efficiency											0%	0%	0%	90%		
Controlled Emission at Maximum Throughput											16.4	392.7	**71.7**	**4.3**		

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 (unit/hr)

Potential VOC Pounds per Day = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (unit/hr) * (24 hrs / 1 day)

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

Pounds VOC per Gallon of Solids = (lbs/gal) * (weight % organics) / (Volume % solids)

Arvin North American Automotive Industries
(Governmental Unit)
Johnson County, Indiana

FEB 18 1994
State Of Indiana
Environmental Management
Office Of Air Management

To: Daily Journal
2575 N. Morton St.
Franklin, In. 46131

File - Johnson Co.
Interim Permit

PUBLISHER'S CLAIM

CP#081-3535
issued 2-19-94

LINE COUNT

Display matter (must not exceed two actual lines, neither of which shall total more than four solid lines of type in which the body of the advertisement is set)

- Number of equivalent lines.....

Head - Number of lines.....

Body - Number of lines.....

Tail - Number of lines.....

Total Number of lines.....67

COMPUTATION OF CHARGES

67 lines, 1 columns wide, 67 equivalent lines at .245 cents per line.....$16.42

Additional charge for notices containing rule or tabular work (50% of above amount).....$

Charge for extra proofs of publication ($1.00 for each proof in excess of two).....$

TOTAL AMOUNT OF CLAIM.....$16.42

CP#081-3535
Interim Permit
issued 2/14/94

DATA FOR COMPUTING COSTS

Width of single column: 8.5 ems
Number of insertions : 1
Size of type : 5.5 point

Pursuant to the provisions and penalties of Chapter 155, Acts 1953,

I hereby certify that the foregoing account is just and correct, that the amount claimed is legally due, after allowing all just credits, and that no part of the same has been paid.

Melissa K. Mc Carty

Date: February 12 ,1994 Title: Legal Advertising Clerk

LEGAL ADVERTISEMENT
PUBLIC NOTICE

Arvin Industries, Inc. (Arvin) has petitioned the commissioner of the Indiana Department of Environmental Management for an interim construction permit under 326 IAC 2-1-3.1 for its Franklin, Indiana facility. The commissioner has granted preliminary approval of the petition.

A public comment period of fourteen (14) working days from the publication of this notice is available for submission of written comments on the proposed interim construction permit to the commissioner. There will be an additional three (3) working days allowed following the end of the comment period for receipt by the commissioner of all mailed comments. No public hearing is available under this section although the opportunity continues to exist during issuance of the final construction under 326 IAC 2-1-3(f) (5).

Operation of the proposed source may not commence until a valid operating permit is issued under 326 IAC 2-1-4.

If the interim construction permit is approved, construction is entirely at Arvin's own risk.

A copy of the petition and any accompanying material is available at: Johnson County Public Library, 401 S. State Street, Franklin, Indiana 46131.

Arvin shall notify the commissioner of the date this public notice was published and submit a copy of the proof of publication from the newspaper to the office of air management. If no comments are received within three (3) working days from the close of the comment period and the petition is not approved or denied by the commissioner in writing, Arvin's petition for an interim construction is effective and becomes the enforceable interim construction permit at midnight the third working day following the close of the public comment period. If comments are received during the public coment period or within the following three (3) days, the commissioner shall have ten (10) working days from the close of the comment period of the receipt of

PUBLISHER'S AFFIDAVIT

State of Indiana)
Johnson County) ss:

Personally appeared before me, a notary public in and for said county and state, the undersigned Melissa K. Mc Carty who, being duly sworn, says that she is Legal Advertising Clerk of the Daily Journal newspaper of general circulation printed and published in the English language in the (city) (town) of Franklin in state and county aforesaid, and that the printed matter attached hereto is a true copy, which dates of publication being as follows:

February 12, 1994

Melissa K. Mc Carty

Subscribed and sworn to before me this 12th day of February, 1994.

Dorothy A. Hayes

Dorothy A. Hayes, Notary Public
My commission expires: September 23, 1996

Issued 2-14-94 Arvin Industries Johnson Co.

RECEIVED

FEB 18 1994

State Of Indiana
Department of Environmental Management
Office Of Air Management

Johnson

Arvin North American Automotive
(Governmental Unit)
Johnson County, Indiana

To: Daily Journal
2575 N. Morton St.
Franklin, In. 46131

YOUR COPY PAID

PUBLISHER'S CLAIM

LINE COUNT

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- Number of equivalent lines.....

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RECEIVED D.E.M. JUN 21 1994 CONTROLLERS DIV.

67 lines, 1 columns wide, 67 equivalent lines at .245 cents per line.....$16.42

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RECEIVED D.E.M. MAY 02 1994 CONTROLLERS DIV.

CP#081-3535 Interim Permit issued 2/14/94

DATA FOR COMPUTING COSTS
Width of single column: 8.5 ems
Number of insertions : 1
Size of type : 5.5 point

Pursuant to the provisions and penalties of Chapter 155, Acts 1953,

I hereby certify that the foregoing account is just and correct, that the amount claimed is legally due, after allowing all just credits, and that no part of the same has been paid.

Melissa K. Mc Carty

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NB

PUBLISHER'S AFFIDAVIT

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Johnson County) ss:

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February 12, 1994

Melissa K. McCarty

Subscribed and sworn to before me this 12th day of February, 1994.

Dorothy A. Hayes

Dorothy A. Hayes, Notary Public
My commission expires: September 23, 1996

TOTAL AMOUNT OF CLAIM.....RECEIVED.....$16.42

RECEIVED
D.E.M.
MAY 0 2 1994
CONTROLLERS DIV.

CP#081-3535
Interim Permit
Issued 2/14/94

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(J) 2-12-94

MB

PUBLISHER'S AFFIDAVIT

State of Indiana)
Johnson County) ss:

Personally appeared before me, a notary public in and for said county and state, the undersigned Melissa K. Mc Carty who, being duly sworn, says that she is Legal Advertising Clerk of the Daily Journal newspaper of general circulation printed and published in the English language in the (city) (town) of Franklin in state and county aforesaid, and that the printed matter attached hereto is a true copy, which dates of publication being as follows:

February 12, 1994

Melissa K. McCarty

Subscribed and sworn to before me this 12th day of February, 1994.

Dorothy A. Hayes

Dorothy A. Hayes, Notary Public
My commission expires: September 23, 1996

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

We make Indiana a cleaner, healthier place to live

Evan Bayh
Governor
Kathy Prosser
Commissioner

100 North Senate Avenue
P.O. Box 6015
Indianapolis, Indiana 46206-6015
Telephone 317-232-8603
Environmental Helpline 1-800-451-6027

February 11, 1994

Certified Mail P 335 077 684

Arvin Industries, Incorporated
1001 North Hurricane Street
Franklin, Indiana 46131

Attention: Mr. Douglas A. Logan - Director, Environmental Affairs and Safety

Re: Interim Construction Permit and Operation Status Approval, CP 081-3535, Plt ID 081-00020

Ladies and Gentlemen:

The Arvin Industries, Incorporated interim construction permit petition (enclosed), submitted on February 4, 1994 has been reviewed. Based on the data submitted and the provisions in Sections 1, 2, and 3.1 of 326 IAC 2-1, this petition is approved for the following, to be located at 1001 North Hurricane Street in Franklin, Indiana is classified as interim construction:

One (1) Parts Washer,using aqueous wash and rinse, and having three (3) natural gas burners rated at 1,500,000 Btu per hour, 1,500,000 Btu per hour, and 800,000 Btu per hour, located at washer stages 1, 2, and 5 respectively.

One (1) natural gas only fueled oven, rated at 6,400,000 Btu per hour.

One (1) Binks Spray Coating Application Booth, equipped with high volume low pressure spray application equipment. Booth shall be equipped with a dry filter particulate emission control device. Booth shall be equipped with a 30,000 acfm exhaust fan - exhausting through a stack thirty (30) inches in diameter and discharging 29 feet above ground level.

The above construction shall be subject to the following conditions:

1. That this interim construction permit does not relieve the permittee of the responsibility to comply with the provisions of the Indiana Department of Environmental Management Law (IC 13-7), Air Pollution Control Law (IC 13-1-1) and the rules promulgated thereunder, as well as other applicable local, state, and federal requirements.

conditions continue next page

2. That the equipment shall be installed in accordance with the manufacturer's specifications.

3. That pursuant to 326 IAC 8-2-9, the volatile organic compound content of coatings applied to automotive mufflers shall be limited to 3.5 pounds of volatile organic compounds per gallon of coating less water delivered to the applicator.

4. That the total volume of coating delivered to the applicator shall not exceed 1,600 gallons per month. Also that satisfaction of this condition and condition 3 shall be deemed to render the Prevention of Significant Deterioration rules (326 IAC 2-2 and 40 CFR 52.21) not applicable to this construction.

5. That a log of information necessary to document compliance with condition 4 shall be maintained. These records shall be kept for at least the past 24 month period and and made available upon request to the Office of Air Management. Such records shall include the volatile organic compound content of all coating applied in the coating application booth and the volume of coating delivered to the applicator.

This interim construction permit is federally enforceable and expires on the effective date of the final construction permit. This interim construction permit may be revoked after its effective date upon a written finding by the commissioner that any of the reasons for denial in 326 IAC 2-1-3.1(d) exists or if the final construction permit is denied. The facilities subject to this approval may not operate until both the construction permit and validation letter are issued by the Office of Air Management.

Sincerely,

Paul Dubenetzky

Paul Dubenetzky, Chief
Permits Branch
Office of Air Management

DLW
cc: Johnson County Health Department
Air Compliance Section
Compliance Branch - Tracking
Data Support Section

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

RECEIPT

ARVIN NORTH AMERICAN AUTOMOTIVE
1531 13th Street, Columbus, Indiana 47201 812 379-3000

National Bank of Detroit–Dearborn

No. 013741

74-1292
724

DATE 02/04/94

PAY EXACTLY **********500DOLLARS ****00CENTS

PAY EXACTLY **********$500.00

VOID AFTER 90 DAYS

DER Indiana Department of Environmental Mgmt
Cashier

AUTHORIZED SIGNATURE(S)

⑈013741⑈ ⑆072412927⑆ 00266486⑈

RECEIPT NO. — 33650

ACCOUNT NUMBER 324-400

PROGRAM 111

AMOUNT $ 500.00 CASH ☐ RECEIVED FROM

DATE 2/4/94 REPRESENT

CASHIER Julie Cook

COMMENT

ARVIN
081-3535
Interim App.

FORM APPROVED BY STATE BOARD OF ACCOUNTS, 1992.

Billing and Refund Instructions

Form 2

Engineer : _____ ____ Mail

Plant ID # : _____ ____ Fax

CP Number : 081-3535 Fax Number _____

Secr. Instructions:

____ type bill letter (Remember to type the CP Number on the bill letter) and make 2 copies.

____ one copy for CP file

____ one copy for PJM mailout folder

____ mail/fax bill letter to company as instructed above

____ enter CP number, billing date, and amount on CPT form

Company Name ARVIN INDUSTRIES

Mailing Address 1001 N. HURRICANE

City, State - Zip FRANKLIN, IN 46131

Attention DOUGLAS A. LOGAN

Phone Number 812/ 379-3000

Facility Description _____

Date Application Received 2/4/94

✓ $500 for filing fee (for exemptions and registrations only)

____ $200 for registration review

____ $3,000 for construction permit review (credit for filing fee)

____ $5,000 for PSD permit review (credit for filing fee)

air quality impact study review

____ $3,000 if applicant does analysis, or

____ times $5,000 per pollutant if OAM does analysis equals $_____

PSD BACT or LAER review

____ $2,500 for 2 to 5 review analyses, or

____ $5,000 for 6 to 10 review analyses, or

____ $10,000 for 11 or more review analyses

____ $400 for a public hearing

____ times $200 for each NSPS review equals $_____

____ times $200 for each NESHAP review equals $_____

____ times $500 for each 326 IAC 8-1-6 BACT review equals $_____

Total of $_____

Minus $ 500 credit for filing fee & minus $_____ other credit = $_____ total credit

Total due $_____ Date bill mailed _____

Refunds

1. Determine the amount of refund is required (Total Received - Total Due)
2. Determine the reason why a refund is required
3. Make a copy of the receipts for the CP File.
4. Attach the receipts to this sheet.

Total Refund $_____ Date refund mailed _____

Reason for Refund: _____

REVISED 2/5/9:

Affidavit
for Interim Construction Permit

I, James Stegemiller, Plant Manager of the Arvin Industries, Inc. facility at 1001 Hurricane St., Franklin, Indiana, 46131, hereby state the following as required by 326 IAC 2-1-3.1(b)(2)(E):

Arvin Industries, Inc. will proceed with the project described in the February 4, 1994 interim construction permit petition at its own risk, including but not limited to:

1. Financial risk,

2. The risk that the commissioner will require additional or different control technologies in order for a final construction permit or registration to be approved under applicable law, and

3. The risk that the commissioner might deny issuance of the final construction permit.

James Stegemiller
Plant Manager

Subscribed and sworn or affirmed to before me this 4th day of February, 1994. IN TESTIMONY WHEREOF, I, Mark J. Adolay, have hereunto set my hand and official seal.

Mark J. Adolay, a Notary Public for the County of Marion , State of Indiana.

My commission expires April 14, 1994

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

RECEIPT

ARVIN NORTH AMERICAN AUTOMOTIVE
1531 13th Street, Columbus, Indiana 47201 812 379-3000

National Bank of Detroit–Dearborn

No. 0161

74-1292
724

DATE 03/17/94

VOID

PAY EXACTLY ********200 DOLLARS 00 CENTS

PAY EXACTLY $200.

VOID AFTER 90 DAYS

TO THE ORDER OF
CASHIER DEPT OF ENVIRONMENTAL
MGMT, OFFICE OF AIR MANAGEMENT
100 N SENATE, P O BOX 7060
INDIANAPOLIS, IN 46206

AUTHORIZED SIGNATUR

⑈016134⑈ ⑆072412927⑆ 00266486⑈

RECEIPT NO. — 35593

ACCOUNT NUMBER 3240 140000

RECEIVED
MAR 23 1994
State of Indiana
Department of Environmental Management
Office of Air Management

PROGRAM 411100

AMOUNT $ 200.00 CASH ☐ RECEIVED FROM

DATE 3/22/94 REPRESENT

CASHIER

COMMENT

Arvin North American Auto
CP # 081-3484-00020
Reg.
ISS. 3-24-94

FORM APPROVED BY STATE BOARD OF ACCOUNTS, 1992.

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

We make Indiana a cleaner, healthier place to live

Evan Bayh
Governor
Kathy Prosser
Commissioner

100 North Senate Avenue
P.O. Box 6015
Indianapolis, Indiana 46206-6015
Telephone 317-232-8603
Environmental Helpline 1-800-451-6027

March 15, 1994

CERTIFIED MAIL P 335 077 882
Mr. Douglas A. Logan
Arvin North American
1010 N. Hurricane
Franklin, IN 46131

PERMIT NO. 081-3484
RE: BILL FOR Muffler Assembly & Metal Cleaning & Surface Coating Operation

Dear Mr. Logan:

This will acknowledge receipt of your application for a permit to construct the facilities you indicated. Thestaff has reviewed the application and information submitted and finds that it is substantially complete. However, further reviewing might indicate that additional details are necessary.

Before the review can be completed, it will be ncessary for you to submit the fee prescribed by 326 2-1-7.1. According to our preliminary review, the total fee will be $200.00 This is based on:

$200 for Registration Review

Please remit a copy of this bill along with a check for the total fee above, payable to the Department of Environmental Management, to:

Cashier
Department of Environmental Management
Office of Air Management
100 N. Senate Avenue
P.O.Box 7060
Indianapolis, IN 46206-7060

Any questions or additional information should be directed to the Office ofAir Management at the above address. Payment will help avoid a delay in your permit. Construction can not commence until a permit is issued. This document is not a permit. **Also, please write "Air Construction Permit" on your check.**

Sincerely,

Terrence K. Hoya

Terrence K. Hoya, Chief
Engineering Section
Office of Air Management

RECEIVED
MAR 21 1994
CASHIER/PAYROLL

TKH/PJM

An Equal Opportunity Employer
Printed on Recycled Paper

ARVIN
NORTH AMERICAN
AUTOMOTIVE
1531 13th Street, Columbus, Indiana 47201

MAR 17 '94

CASHIER
INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR MANAGEMENT
PO BOX 7060
INDIANAPOLIS IN 46206-7060

46206-7060

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
100 NORTH SENATE AVENUE
P. O. BOX 6015
INDIANAPOLIS, INDIANA 46206-6015

DATE: 3/15/94

TO: Douglas A. Logan	TELEFAX # 812/379-3227
COMPANY/DIVISION: Arvin No. American	TELEPHONE #

FROM: P. J. Mc Broom	TELEPHONE # 317/232-8469
COMMISSION & SECTION: IDEM OOM	NUMBER OF PAGES: 2

COMMENTS:

IDEM LOCATION		FAX NUMBER	CONFIRM NUMBER
INDIANA GOVERNMENT CENTER-NORTH		**(AREA CODE 317)**	
STORES AND MAIL	LOWER LEVEL	232-5539	232-8568
OSHWM FILE ROOM	11TH FLOOR	232-3403	232-3399
ENFORCEMENT	13TH FLOOR	232-5968	233-5529
IDEM COMMISSIONER	13TH FLOOR	232-8564	233-8162
WATER MANAGEMENT	12TH FLOOR	232-8637	232-8670
WATER MANAGEMENT	11TH FLOOR	232-8406	232-8476
DRINKING WATER	11TH FLOOR	233-4165	233-4222
AIR MGMT.-ASBESTOS	10TH FLOOR	233-3257	233-3861
AIR MANAGEMENT	10TH FLOOR	233-5967	232-5586
LEGAL COUNSEL	13TH FLOOR	233-5517	232-8753
EXTERNAL AFFAIRS	13TH FLOOR	232-8564	232-8560
ENVIRON. RESP. & MIS	12TH FLOOR	233-6358	233-6352
WATER MANAGEMENT	BRADBURY	243-5092	243-5036
NORTHWEST OFFICE	GARY, IN	(219) 881-6745	(219) 881-6712

Called 3-15-94 p.m.

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

We make Indiana a cleaner, healthier place to live

Evan Bayh
Governor
Kathy Prosser
Commissioner

March 15, 1994

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Telephone 317-232-8603
Environmental Helpline 1-800-451-6027

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Cashier
Department of Environmental Management
Office of Air Management
100 N. Senate Avenue
P.O.Box 7060
Indianapolis, IN 46206-7060

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Sincerely,

Terrence K. Hoya

Terrence K. Hoya, Chief
Engineering Section
Office of Air Management

TKH/PJM

An Equal Opportunity Employer
Printed on Recycled Paper

Billing and Refund Instructions

Form 2

Engineer : SDF

Plant ID # : 081-00020

CP Number : 081-3484

____ Mail

____ Fax

Fax Number ____

Secr. Instructions:

____ type bill letter (Remember to type the CP Number on the bill letter) and make 2 copies.

____ one copy for CP file

____ one copy for PJM mailout folder

____ mail/fax bill letter to company as instructed above

____ enter CP number, billing date, and amount on CPT form

Company Name ARVIN NORTH AMERICAN

Mailing Address 1001 N. HURRICANE

City, State - Zip FRANKLIN, IN 46131

Attention DOUGLAS A. LOGAN

Phone Number 812/ 379-3000

Facility Description mufflar assembly and metal cleaning & surface coating operation

Date Application Received 1/7/94

✓ $100 for filing fee (for exemptions and registrations only)

✓ $200 for registration review

____ $3,000 for construction permit review (credit for filing fee)

____ $5,000 for PSD permit review (credit for filing fee)

____ air quality impact study review

____ $3,000 if applicant does analysis, or

____ times $5,000 per pollutant if OAM does analysis equals $____

PSD BACT or LAER review

____ $2,500 for 2 to 5 review analyses, or

____ $5,000 for 6 to 10 review analyses, or

____ $10,000 for 11 or more review analyses

____ $400 for a public hearing

____ times $200 for each NSPS review equals $____

____ times $200 for each NESHAP review equals $____

____ times $500 for each 326 IAC 8-1-6 BACT review equals $____

Total of $ 300.00

Minus $ 100 credit for filing fee & minus $____ other credit = $____ total credit

Total due $ 200.00 Date bill mailed ____

Refunds

1. Determine the amount of refund is required (Total Received - Total Due)
2. Determine the reason why a refund is required
3. Make a copy of the receipts for the CP File.
4. Attach the receipts to this sheet.

Total Refund $____ Date refund mailed ____

Reason for Refund: ____

REVISED 2/5/92

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

RECEIPT

ARVIN NORTH AMERICAN AUTOMOTIVE
1531 13th Street, Columbus, Indiana 47201 812 379-3000

National Bank of Detroit-Dearborn

No. 011137
74-1292
724

DATE 01/04/94

PAY EXACTLY *********100 DOLLARS****00 CENTS

PAY EXACTLY $100.00**********

VOID AFTER 90 DAYS

TO THE ORDER OF
Cashier
Department of Environmental Management
P.O. Box 7060
Indianapolis, IN 46206-7060

AUTHORIZED SIGNATURE(S)

⑈011137⑈ ⑆072412927⑆ 00266486⑈

RECEIPT NO. 32038

RECEIVED
JAN 7 1994
State of Indiana
Department of Environmental Management
Office of Air Management

ACCOUNT NUMBER 324-400

PROGRAM 111

AMOUNT $ 100.00 CASH ☐ RECEIVED FROM

DATE 1/6/94 REPRESENT

CASHIER

COMMENT

Arvin
CP# 081-3484
Reg.
Iss. 3-24-94

FORM APPROVED BY STATE BOARD OF ACCOUNTS, 1992.

ARVIN NORTH AMERICAN AUTOMOTIVE

1531 13th Street, Columbus, Indiana 47201 812 379-3000

No. 011137

DATE 01/04/94

OD-1075A

INVOICE/CONTRACT	INVOICE DATE	DESCRIPTION	VOUCHER NO.	GROSS AMOUNT	DISCOUNT AMT.	NET AMOUNT
027959	01/04/94	Construction Permit Application Fee for paint booth construction for the new Cadillac lines				100.00
			TOTALS			100.00

DETACH AND RETAIN THIS STUB
THE ATTACHED CHECK IS IN PAYMENT OF ITEMS DESCRIBED ABOVE. IF NOT CORRECT, PLEASE NOTIFY US PROMPTLY. NO RECEIPT REQUIRED.

ARVIN
NORTH AMERICAN
AUTOMOTIVE

C PA 081-3484
add'l info
SDF

RECEIVED

FEB 14 1994

State Of Indiana
Department of Environmental Management
Office Of Air Management

February 11, 1994

By Certified Mail

Mr. Scott Fulton
Plan Review and Permit Section
Office of Air Management
Indiana Department of Environmental Management
100 North Senate Avenue
Indianapolis, Indiana 46207

Subject: Construction Permit
Modification
Arvin North American Automotive
Franklin, Indiana

Dear Mr. Fulton:

As I explained in our telephone conversation this morning, we have found 2 factors that call for another modification of the construction permit and the interim construction permit for the Arvin Industries, Inc. Franklin plant. We have found that the amount of paint required per production unit was overstated. We have also found that electrostatic spray guns are suitable and highly desirable for the proposed installation.

The net result of these changes is a very substantial reduction in potential emissions. The initial paint usage estimate in our quotation to the customer was more than double what we now anticipate. The change to electrostatic application is expected to halve the emissions again because of the improved transfer efficiency. With the changes, the potential emissions from the new source drop to 31,000 lb. of VOC per year. Since the existing registered coating line (CP 081-2328, ID 081-00020) had emissions last year of 15,000 lb. of VOC, a permit is clearly still required.

Please contact me at (812) 379-3575 if there are any questions or problems about this matter.

Sincerely,

Douglas A. Logan, P.E.
Director of Environmental Affairs and Safety

1531 13th Street, Box Number 3002, Columbus, Indiana 47202 Phone: 812/379-3000 a division of Arvin Industries, Inc.

BACT Analysis

Arvin North American Automotive
Franklin, Indiana

Revised
11 February 1994

Economic analysis of control options for the proposed source is based on potential VOC emissions estimated at 62,000 pounds/year. The estimate is based on the use of a high solids paint and HVLP spray guns with a transfer efficiency of 30%. Cost estimates and analysis are based on the OAQPS Control Coast Manual (4th ed., January 1990). Equipment costs were scaled from 3rd quarter 1989 values to 3rd quarter 1993 (most recent available) using the Marshall & Swift Equipment Cost Index published monthly in **Chemical Engineering** magazine.

Only electrostatic application and thermal oxidation systems were studied. Activated carbon adsorption is not feasible because of the possibility of fouling the bed with entrained particulate matter. Catalytic incineration is not feasible because of the risk that the catalyst bed might be poisoned by the silicone resin used in the coating.

Utility cost estimates neglect the heating value of VOC pollutants in the spray booth exhaust. For this application, the VOC concentration is considered too low to contribute significantly to the heating value.

Electrostatic application (option 4) is clearly a cost effective control technology for the proposed installation and Arvin intends to purchase the necessary equipment. Options 1, 2, and 3 are clearly not cost effective. Option 5, a combination of control technologies, is not justified on the basis of the incremental cost.

Control Option #1 - Regenerative Thermal Oxidation

Capital Cost

30,000 SCFM regenerative thermal oxidation unit, 95% recovery sized per Equation 3.28, OAQPS Control Cost Manual, 4th Ed.	$612,000
Instrumentation, taxes, and freight @ 18%	110,000
Purchased Equipment Cost (PEC)	722,000
Installation direct costs @ 30% PEC	217,000
Installation indirect costs @ 31% PEC	224,000
Total Capital Cost (TCC)	$1,163,000

Annual Cost

1. Labor	
a. operator (1/2 hr/shft, 1,095 shft/yr @ $12.00/hr)	$7,000
b. supervisor @ 15% 1a	1,100
2. Maintenance	
a. labor (1/2 hr/shft, 1,095 shft/yr @ $14.00/hr)	8,000
b. materials @ 100% 2a	8,000
3. Utilities, per OAQPS Manual	
a. electricity - 175.5 kW, 8,760 hr/yr @ $0.065/kWh	99,900
b. natural gas - 2.7 MCF/hr, 8,760 hr/yr @ $4.00/MCF	94,600
4. Overhead @ 60% (1a+1b+2a)	9,700
5. Administration, property taxes, and insurance @ 4% TCC	46,500
6. Capital recovery @ 10 yr. and 10% (0.1628)	189,000
Total Annual Cost	$464,000
VOC reduction (62,000 lb. generated @ 98% removal)	60,800
Annual cost per pound of VOC removed	$7.63

Control Option #2 - Regenerative Thermal Oxidation With Recirculating Air

Capital Cost

Single 10,000 SCFM regenerative thermal oxidation unit, 95% recovery sized per Equation 3.28, OAQPS Control Cost Manual, 4th Ed.	$362,000
Additional ductwork for recirculating 67% of spray booth air	80,000
Instrumentation, taxes, and freight @ 18%	65,000
Purchased Equipment Cost (PEC)	507,000
Installation direct costs @ 30% PEC	152,000
Installation indirect costs @ 31% PEC	157,000
Total Capital Cost (TCC)	$816,000

Annual Cost

1. Labor	
a. operator (1/2 hr/shft, 1,095 shft/yr @ $12.00/hr)	$7,000
b. supervisor @ 15% 1a	1,100
2. Maintenance	
a. labor (1/2 hr/shft, 1,095 shft/yr @ $14.00/hr)	8,000
b. materials @ 100% 2a	8,000
3. Utilities, per OAQPS Manual	
a. electricity - 58.5 kW, 8,760 hr/yr @ $0.065/kWh	33,300
b. natural gas - 0.9 MCF/hr, 8,760 hr/yr @ $4.00/MCF	31,500
4. Overhead @ 60% (1a+1b+2a)	9,700
5. Administration, property taxes, and insurance @ 4% TCC	32,600
6. Capital recovery @ 10 yr. and 10% (0.1628)	133,000
Total Annual Cost	$264,000
VOC reduction (62,000 lb. generated @ 98% removal)	60,800
Annual cost per pound of VOC removed	$4.34

Control Option #3 - Recuperative Thermal Oxidation With Recirculating Air

Capital Cost

10,000 SCFM recuperative thermal oxidation unit, 70% recovery sized per Equation 3.27, OAQPS Control Cost Manual, 4th Ed.	$230,000
Additional ductwork for recirculating 67% of spray booth air	80,000
Instrumentation, taxes, and freight @ 18%	41,000
Purchased Equipment Cost (PEC)	351,000
Installation direct costs @ 30% PEC	105,000
Installation indirect costs @ 31% PEC	109,000
Total Capital Cost (TCC)	$565,000

Annual Cost

1. Labor	
a. operator (1/2 hr/shft, 1,095 shft/yr @ $12.00/hr)	$7,000
b. supervisor @ 15% 1a	1,100
2. Maintenance	
a. labor (1/2 hr/shft, 1,095 shft/yr @ $14.00/hr)	8,000
b. materials @ 100% 2a	8,000
3. Utilities, per OAQPS Manual	
a. electricity - 37.05 kW, 8,760 hr/yr @ $0.065/kWh	21,100
b. natural gas - 9 MCF/hr, 8,760 hr/yr @ $4.00/MCF	315,400
4. Overhead @ 60% (1a+1b+2a)	9,700
5. Administration, property taxes, and insurance @ 4% TCC	22,600
6. Capital recovery @ 10 yr. and 10% (0.1628)	92,000
Total Annual Cost	$485,000
VOC reduction (62,000 lb. generated @ 98% removal)	60,800
Annual cost per pound of VOC removed	$7.98

Control Option #4 - Electrostatic Application

Capital Cost

2 - Manual electrostatic spray guns	$10,000
Instrumentation, taxes, and freight @ 18%	2,000
Purchased Equipment Cost (PEC)	12,000
Installation direct costs @ 30% PEC	4,000
Installation indirect costs @ 31% PEC	4,000
Total Capital Cost (TCC)	$20,000

Annual Cost

1. Maintenance	
a. labor (1 hr/day, 365 days/yr @ $14.00/hr)	5,110
b. materials @ 100% 2a	5,110
3. Utilities	
a. electricity - not determined	
4. Overhead @ 60% (1a+1b+2a)	3,100
5. Administration, property taxes, and insurance @ 4% TCC	800
6. Capital recovery @ 10 yr. and 10% (0.1628)	3,000
Total Annual Cost	$17,000
Paint cost reduction (4,040 gal/yr @ $54.00/gal)	($218,000)
VOC reduction (62,000 lb. generated @ 30% removal)	31,000
Annual cost per pound of VOC removed	($6.48)

Control Option #5 - Incremental Cost of Regenerative Thermal Oxidation with Recirculating Air, Combined with Electrostatic Application

Capital Cost

Single 10,000 SCFM regenerative thermal oxidation unit, 95% recovery sized per Equation 3.28, OAQPS Control Cost Manual, 4th Ed.	$362,000
Additional ductwork for recirculating 67% of spray booth air	80,000
Instrumentation, taxes, and freight @ 18%	65,000
Purchased Equipment Cost (PEC)	507,000
Installation direct costs @ 30% PEC	152,000
Installation indirect costs @ 31% PEC	157,000
Total Capital Cost (TCC)	$816,000

Annual Cost

1. Labor	
a. operator (1/2 hr/shft, 1,095 shft/yr @ $12.00/hr)	$7,000
b. supervisor @ 15% 1a	1,100
2. Maintenance	
a. labor (1/2 hr/shft, 1,095 shft/yr @ $14.00/hr)	8,000
b. materials @ 100% 2a	8,000
3. Utilities, per OAQPS Manual	
a. electricity - 58.5 kW, 8,760 hr/yr @ $0.065/kWh	33,300
b. natural gas - 0.9 MCF/hr, 8,760 hr/yr @ $4.00/MCF	31,500
4. Overhead @ 60% (1a+1b+2a)	9,700
5. Administration, property taxes, and insurance @ 4% TCC	32,600
6. Capital recovery @ 10 yr. and 10% (0.1628)	133,000
Total Annual Cost	$264,000
VOC reduction (31,000 lb. generated @ 98% removal)	30,400
Annual cost per pound of VOC removed	$8.68

STATE OF INDIANA
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR MANAGEMENT

FORM E

Process Information

Not Applicable _____

Company Name ARVIN INDUSTRIES INC, FRANKLIN IN - REVISED 11 FEBRUARY 1994

Products Produced AUTOMOTIVE EXHAUST SYSTEMS

Raw Material Rate (use an additional sheet if needed)

TYPE MATERIAL	RATE (LB/HR)
WABASH KB 318 HS HH	12.46
EXHAUST ASSEMBLIES	4508

Finished Product

Pounds/Hour Maximum 4520 Normal _____

Process and Control Equipment (Use an additional sheet if needed)
Process Identification:

1 BINKS SPRAY BOOTH WITH PARTS WASHER, DRY OFF OVEN, AND BAKE OVEN

Type of Control DRY FILTER
Efficiency 90%
For Dry Collectors, Tons/year Collected N/A
STACK DATA
Stack Identification NONE

Height (ft. above ground) 29

Diameter (ft. inside) 2.83

Gas Discharge Temperature (Deg F) AMBIENT

Gas Flow Rate (acfm) 30,000

Operation Schedule

Hours/Day 16
Days/Week 5
Weeks/Year 50

STATE OF INDIANA
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR MANAGEMENT

FORM F

Flow Diagram

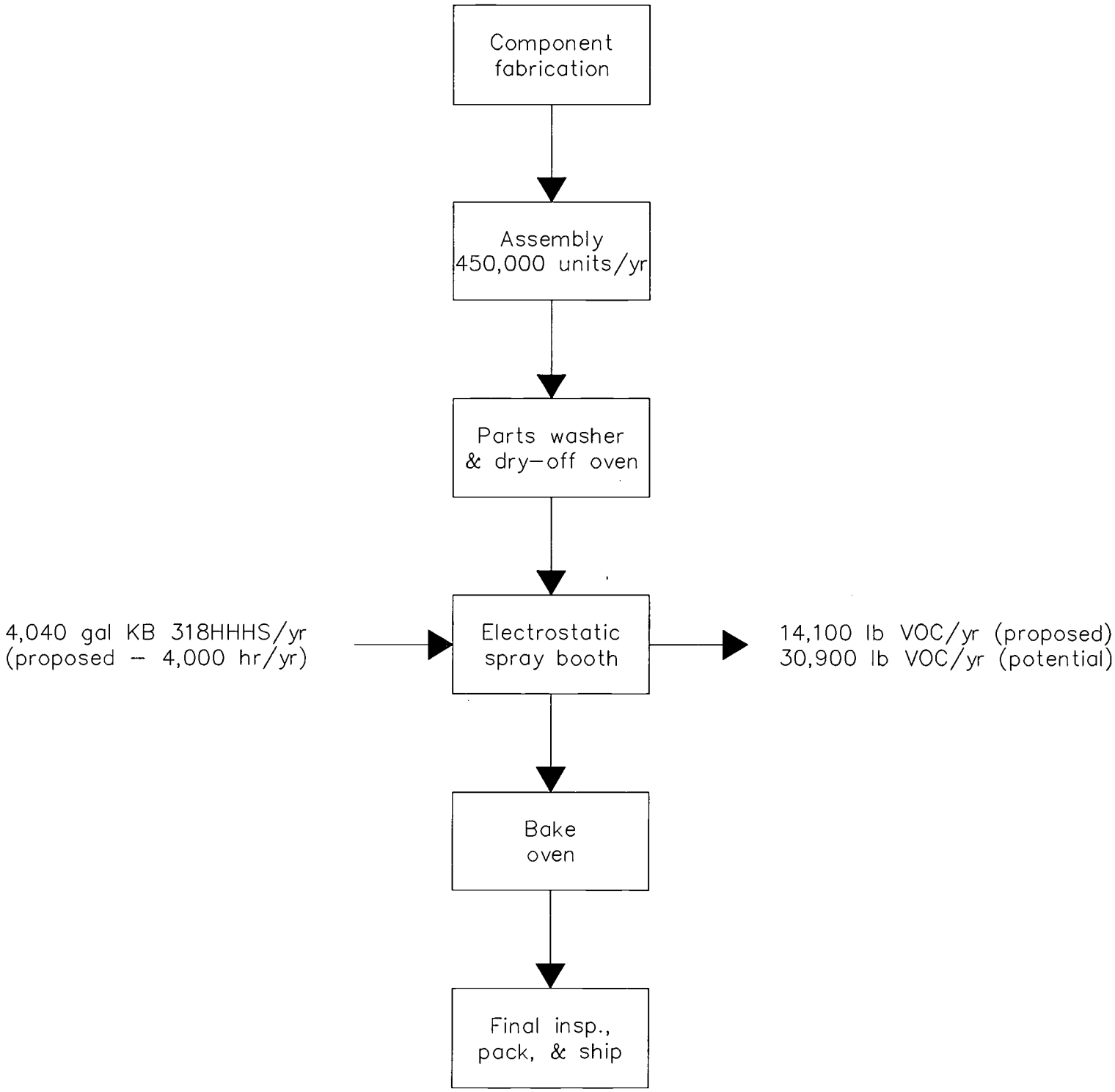
Not Applicable _____

Company Name ARVIN INDUSTRIES INC FRANKLIN PLANT - REVISED 11 FEB 94

This permit application must include a simple flow diagram of your operation from raw materials input to the finished products. Show points of emission including stacks. Show location of air pollution control equipment, the process it controls, and removal efficiency. State the maximum hourly capacity of each step of the operation.

Process Flow Diagram

Arvin NAA
Franklin Plant
Revision
11 February 1994



STATE OF INDIANA
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR MANAGEMENT

SURFACE COATING AND ACCESSORY SOLVENTS

Company Name ARVIN INDUSTRIES INC FRANKLIN PLANT REVISED 11 FEBRUARY 1994

1 Material (Coatings, Solvents, Etc.)	2 Identification Number	3 Material Density Lb / Gal	4 Weight % Volatiles (Water and Organics)	5 Weight % Water	6 Volume % Water	7 Volume % Non-volatiles (Solids)	8 Gallons of Material* Required for One Production Unit Gal / Production Unit	9 Maximum Number of Production Units per Hour	10 Actual** Usage Gal/Yr	11 Process or Booth I. D.
COATING	KB 318 HHHS	12.35	28	0	0	52	0.00909	111		CADILLAC LINE BINKS

* If different types or sizes of units are coated in the same paint booth with the same coating, this amount should be based on the production unit requiring the most gallons per hour. Gallons per hour = Column 8 x Column 9. If different coatings are used, they must be listed as a separate material.

** Complete this column for operation permit renewals only.

Attach a Material Safety Data Sheet (MSDS) for each material listed. DO NOT SEND THE ENTIRE MSDS. The required sections are: Section I (Product Identification), Section II (Composition Information), and Section III (Physical Property Information).

Density, Weight % Volatiles, and Weight % Water are determined by methods listed in 326 IAC 8-1-4

Form W-1

Revised 7-16-91

STATE OF INDIANA
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR MANAGEMENT

SURFACE COATING AND ACCESSORY SOLVENTS

Company Name ARVIN INDUSTRIES INC FRANKLIN PLANT REVISED 11 FEBRUARY 1994

Process or Booth Identification (1)	CADILLAC LINE BINKS			
Application Method (2)	SPRAY			
If sprayed Specify type (3)	ELECTROSTATIC			
Type of Overspray controls (4)	DRY FILTER			
Control Efficiency	90 %			
Type of Hydrocarbon controls (5)	NONE			
Control Efficiency	N/A			
Stack Height (feet above ground)	29			
Stack Diameter (inches)	30			
Exhaust flow Rate (acfm)	30,000			
Exhaust Discharge Temperature °F	AMBIENT			

Operating Schedule: 16 hours/day 5 days/week 50 weeks/year

1. Use identifiers from forms B and F.

2. Method of application refers to dipping, spraying, rollcoating, brushing, flowcoating, or other.

3. Types of spray coating include: air atomization, airless, electrostatic disc, electrostactic airless, electrostatic air atomized, low pressure air atomization, low pressure-high volume, or other.

4. Overspray controls include: dry and wet filters, baffles, waterwash, or other.

5. Hydrocarbon controls include: catalytic or direct flame incineration, solvent recovery, carbon adsorption, or other.

ARVIN INDUSTRIES INC. FRANKLIN PLANT
REVISED 11 FEB 94

FORM Y4
7-29-91

STATE OF INDIANA
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR MANAGEMENT

Air Toxic Pollutants

X	CAS NUMBER	CHEMICAL NAME	EMISSION POINTS	MAXIMUM EMISSION RATE (POUNDS/HR)
___	00088062	2,4,6-Trichlorophenol		
___	00121448	Triethylamine		
___	01582098	Trifluralin		
___	00540841	2,2,4-Trimethylpentane		
___	00108054	Vinyl acetate		
___	00593602	Vinyl bromide		
___	00075014	Vinyl Chloride		
___	00075354	Vinylidene chloride (1,1-Dichloroethylene)		
X	01330207	Xylenes (isomers and mixture)	BOOTH	1.6
___	00095476	o-Xylenes		
___	00108383	m-Xylenes		
___	00106423	p-Xylenes		
___		Antimony Compounds		
___		Arsenic Compounds (inorganic including arsine)		
___		Beryllium Compounds		
___		Cadmium Compounds		
___		Chromium Compounds		
___		Cobalt Compounds		
___		Coke Oven Emissions		
___		Cyanide Compounds[1]		
___		Glycol ethers[2]	BOOTH	0.7
___		Lead Compounds		
___		Manganese Compounds		
___		Mercury Compounds		
___		Mineral Fibers[3]		
___		Nickel Compounds		
___		Polycyclic Organic Matter[4]		
___		Radionuclides (Including Radon)[5]		
___		Selenium Compounds		
___		**NONE OF THE COMPOUNDS LISTED ON FORMS Y1 THROUGH Y4 WILL BE EMITTED FROM THE EQUIPMENT LISTED IN THIS APPLICATION.**		

NOTE: FOR ALL LISTINGS ABOVE WHICH CONTAIN THE WORD "COMPOUND" AND FOR GLYCOL ETHERS THESE LISTINGS ARE DEFINED AS INCLUDING ANY UNIQUE CHEMICAL SUBSTANCE THAT CONTAINS THE NAMED CHEMICAL AS PART OF THAT CHEMICAL'S INFRASTRUCTURE.

1 X'CN where X=H' or any other group where a formal dissociation may occur. For example KCN or $Ca(CN)_2$

2 includes mono- and di- ethers of ethylene glycol, diethylene glycol, and triethylene glycol R-(OCH2CH2)n-OR' where: n= 1, 2, or 3; R= alkyl or aryl groups; and R'= R, H, or groups which, when removed, yield glycol ethers with the structure R-(OCH2CH2)n-OH. Polymers are excluded from the glycol category.

3 includes mineral fiber emissions from facilities manufacturing or processing glass, rock, or slag fibers (or other mineral derived fibers) of average diameter 1 micrometer or less.

4 includes organic compounds with more than one benzene ring, and which have a boiling point greater than or equal to 100 degrees Celsius.

5 a type of atom which spontaneously undergoes radioactive decay.

DO NOT SEND ENTIRE MATERIAL SAFETY DATA SHEETS (MSDS). The required sections are: Section I (Product Identification), Section II (Composition Information), and Section III (Physical Property Information).

Company Name: Arvin North American Automotive
Plant Location: Franklin, Indiana
County: Johnson
Date Application Received: January 7, 1994

Arvin North American has submitted an application to install an automotive pipe and muffler metal preparation and surface coating operation. This coating operation will generate criteria pollutant emissions from the following processes:

1. The Parts Washing and Drying Process, and
2. The Surface coating operation.

The following calculations determine the emissions generated by these processes.

1. Parts Washing and Drying Process Emissions:

Emissions from the parts washing and drying processes are generated from the following:

	Source	Fuel	Capacity
A. Parts washer stage 1,	burner	nat. gas	1.5
B. Parts washer stage 2,	burner	nat. gas	1.5
C. Parts washer stage 5	burner	nat. gas	0.8
D. Parts Dryer	oven	nat. gas	6.4
			10.2 total

The total capacity for the parts washing and drying processes are 10.2 MMBtu/hr.

The following calculations are based on natural gas combustion, 8760 hours of operation, and EPA SCC# 1-02-006-02:

Pollutant: $\frac{\text{10.2 MMBtu/hr * 8760 hr/yr * Ef (lb/MMcf)}}{\text{1000 Btu/cf * 2000 lb/ton}}$ **ton/yr**

Pollutant	Ef		ton VOC per yr	lb VOC per day
PM	3.0	lb/MMcf =	0.13	0.73
SOx	0.6	lb/MMcf =	0.03	0.15
NOx	140.0	lb/MMcf =	6.25	34.27
VOC	5.3	lb/MMcf =	0.24	1.30
CO	35.0	lb/MMcf =	1.56	8.57

The solution used in the parts cleaning process is alkaline, thus no emissions are generated.

2. Surface Coating Operation

The proposed surface coating operation will generate emissions from the following:

A. Surface coating
B. Clean up

The following calculations determine the potential emissions:

A. Surface Coating Emissions:

Coating the mufflers requires the use of a high performance coating. The emissions calculations are based on information obtained from Form W-1 and W-2 of the permit application. The VOC emissions are determined in the attached spreadsheet. The results are shown below:

lb VOC/day	ton VOC/yr	ton PM/yr
83.74	15.28	11.79

The parts are coated in a spray booth. The particulate matter (PM) are controlled by a dry filter system with a control efficiency of 90%. The PM emissions after controls are determined as follows:

(1 - 0.9) * emissions before controls (11.67 ton/yr) = 1.17 ton PM/yr

The emissions after controls are:

lb VOC/day	ton VOC/yr	ton PM/yr
83.74	15.28	1.18

After the parts are coated, the parts are dried in a baking oven. This oven dries both the parts after coating and after cleaning as mentioned above. Thus, the emissions have been accounted for in the calculations determined above.

B. Clean Up Emissions:

After coating, solvents are used to clean up the coating equipment. The solvents used will generate VOCs. Based on information from similar existing surface coating operations, Arvin North American claims that the VOC emissions due to clean up will be:

ton VOC/yr	lb VOC/day
1.35	7.40

TOTAL EMISSIONS

The total potential emissions generated by this proposed parts cleaning and surface coating operation are the sum of the parts washing and drying and surface coating process emissions. The emissions after controls are basically the same as the potential emissions with the difference being a reduction in PM due to the dry filter system of the spray booth. A summary of the emissions is shown below:

	Emissions Before Controls			Emissions After Controls	
Pollutant	ton/yr	lb/day	Pollutant	ton/yr	lb/day
PM	11.92	65.33	PM	1.91	10.47
SOx	0.03	0.15	SOx	0.03	0.15
NOx	6.25	34.27	NOx	6.25	34.27
VOC	16.87	92.44	VOC	16.87	92.44
CO	1.56	8.57	CO	1.56	8.57

STATE RULES

Since the potential emissions of all the criteria pollutants (see above table) are less than 25 tons per year, a permit is not required.

The potential emissions of particulate matter (PM), nitrogen oxides (NOx), and volatile organic compounds (VOC) exceed the daily limits, thus this proposed automotive pipe and muffler metal preparation and surface coating operation requires a registration.

Pollutant	lb/day	326 IAC 2-1 Daily Limits lb/day
PM	65.33	25
SOx	0.15	50
NOx	34.27	25
VOC	92.44	15
CO	8.57	125

Since no other Article 8 rules apply to the surface coating equipment clean up process, 326 IAC 8-1-6 would apply, however, since the potential VOC emissions (1.35 ton/yr) are less than 25 ton/yr, this rule does not apply.

Since the Standard Industrial Classification Code (SIC) is 37, and the coating used is an extreme performance coating (a coating designed to for exposure to temperatures consistently above 95 C), this surface coating operation is determined to be subject to 326 IAC 8-2-9(d)(3). Pursuant to this rule, this surface coating operation shall not discharge into the atmosphere, any volatile organic compounds in excess of 3.5 lb/gal coating excluding water, as delivered to the applicator.

The VOC content (lb/gal excluding water) of the high performance coating as calculated in the attached spreadsheet. is 3.46 lb/gal excluding water, as delivered to the applicator. Since the VOC content is less than the limit, this coating is determined to be in compliance.

This proposed source is also subject to 326 IAC 6-3-2(c). The allowable emissions for the surface coating process are 0.00 lb PM/hr for operation processing 4520 lb/hr.

E = 4.10 * P^0.67 = 7.08 lb PM/hr

where: E = Allowable Emissions, lb/hr
P = Process Weight, ton.hr = 2.26 ton/hr

Actual Emissions = 1.91 ton/yr (0.44 lb/hr) This meets the rule.

FEDERAL RULES

There are no New Source Performance Standards (NSPS) that apply to this source.

AIR TOXICS This proposed source will emit the following air toxics:

Air Toxic	ton/yr
Xylene	7.01
Ethylene Glycol	2.63

Since no single air toxic will be emitted at a rate greater than 25 ton/yr, and the combined total is less than 25 ton/yr, this proposed source will not be considered a major source of air toxics.

Federal Potential Emissions
From Surface Coating Operations
Arvin North American
Franklin, Indiana
Mar.3,1993
Scott Fulton

Material	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
KB-318HHHS	12.35	28.0%	0.0%	28.0%	0.0%	52.0%	0.00909	111	3.46	3.46	3.49	83.74	15.28	11.79	6.65	70%

Total State Potential Emissions	Add worst coating to all solvents		83.74	15.28	11.79

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 (unit/hr)
Potential VOC Pounds per Day = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (unit/hr) * (24 hrs / 1 day)
Potential VOC Tons per Year = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (unit/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 hr/yr) * (1 ton / 2000 lbs)
Pounds VOC per Gallon of Solids = (lbs/gal) * (weight % organics) / (Volume % solids)
Total = Worst Coating + Sum of all solvents used
Emission Factors from EPA 450/4-90-003 SCCs #1-02-006-02 and #1-05-001-06 Assumes Natural Gas Firing

FORM Y3
7-29-91

STATE OF INDIANA
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR MANAGEMENT

Air Toxic Pollutants

X	CAS NUMBER	CHEMICAL NAME	EMISSION POINTS	MAXIMUM EMISSION RATE (POUNDS/HR)
___	00074839	Methyl Bromide (Bromomethane)	___	___
___	00074873	Methyl chloride (Chloromethane)	___	___
___	00071556	Methyl Chloroform (1,1,1-Trichloroethane)	___	___
___	00078933	Methyl ethyl ketone (2-Butanone)	___	___
___	00060344	Methyl hydrazine	___	___
___	00074884	Methyl iodide (Iodomethane)	___	___
___	00108101	Methyl isobutyl ketone (Hexone)	___	___
___	00624839	Methyl isocyanate	___	___
___	00080626	Methyl methacrylate	___	___
___	01634044	Methyl tert butyl ether	___	___
___	00101144	4,4-Methylene bis(2-chloroaniline)	___	___
___	00075092	Methylene chloride (Dichloromethane)	___	___
___	00101688	Methylene diphenyl diisocyanate (MDI)	___	___
___	00101779	4,4'-Methylenedianiline	___	___
___	00091203	Naphthalene	___	___
___	00098953	Nitrobenzene	___	___
___	00092933	4-Nitrobiphenyl	___	___
___	00100027	4-Nitrophenol	___	___
___	00079469	2-Nitropropane	___	___
___	00684935	N-Nitroso-N-methylurea	___	___
___	00062759	N-Nitrosodimethylamine	___	___
___	00059892	N-Nitrosomorpholine	___	___
___	00056382	Parathion	___	___
___	00082688	Pentachloronitrobenzene(Quintobenzene)	___	___
___	00087865	Pentachlorophenol	___	___
___	00108952	Phenol	___	___
___	00106503	p-Phenylenediamine	___	___
___	00075445	Phosgene	___	___
___	07803512	Phosphine	___	___
___	07723140	Phosphorus	___	___
___	00085449	Phthalic anhydride	___	___
___	01336363	Polychlorinated biphenyls (Aroclors)	___	___
___	01120714	1,3-Propane sultone	___	___
___	00057578	beta-Propiolactone	___	___
___	00123386	Propionaldehyde	___	___
___	00114261	Propoxur (Baygon)	___	___
___	00078875	Propylene dichloride (1,2-Dichloropropane)	___	___
___	00075569	Propylene Oxide	___	___
___	00075558	1,2-Propylenimine (2-Methyl aziridine)	___	___
___	00091225	Quinoline	___	___
___	00106514	Quinone	___	___
___	00100425	Styrene	___	___
___	00096093	Styrene oxide	___	___
___	01746016	2,3,7,8-Tetrachlorodibenzo -p-dioxin	___	___
___	00079345	1,1,2,2-Tetrachloroethane	___	___
___	00127184	Tetrachloroethylene (Perchloroethylene)	___	___
___	07550450	Titanium tetrachloride	___	___
___	00108883	Toluene	___	___
___	00095807	2,4-Toluene diamine	___	___
___	00584849	2,4-Toluene diisocyanate	___	___
___	00095534	o-Toluidine	___	___
___	08001352	Toxaphene (chlorinated camphene)	___	___
___	00120821	1,2,4-Trichlorobenzene	___	___
___	00079005	1,1,2-Trichloroethane	___	___
___	00079016	Trichloroethylene	___	___
___	00095954	2,4,5-Trichlorophenol	___	___

081-3484

ARVIN
NORTH AMERICAN AUTOMOTIVE

January 6, 1994

By Hand Delivery

Ms. Kathy Prosser
Indiana Department of Environmental Management
105 South Meridian Street
Indianapolis, Indiana 46206-6015

RECEIVED
JAN 7 1994
State of Indiana
Department of Environmental Management
Office of Air Management

Subject: Air Pollution Construction Permit Application
Arvin North American Automotive
Franklin, Indiana

Dear Ms. Prosser:

The permit application for a new air pollution source at the Arvin North American Automotive (NAA) facility in Franklin, Indiana is enclosed. The proposed source is in addition to existing sources at this location that are registered under ID number 081-00020 (6 November 1992). No changes to the existing sources or operations are proposed at this time.

The proposed source is required to meet the needs of a new program that will produce approximately 450,000 exhaust systems for a large North American automobile manufacturer. The target for full operation of the new production line is July 1994. To the best of our knowledge and belief, the information included in this application is true, correct, and accurate. NAA will make every effort to ensure that changes in the process or schedule conform to Indiana regulations.

Please contact me at (812) 379-3575 if there are any questions or problems about this matter.

Sincerely,

Douglas A. Logan, P.E.
Director of Environmental Affairs

1531 13th Street, Box Number 3002, Columbus, Indiana 47202 Phone: 812/379-3000 a division of Arvin Industries, Inc.

081-3484

ARVIN
NORTH AMERICAN AUTOMOTIVE

January 6, 1994

By Hand Delivery

Ms. Kathy Prosser
Indiana Department of Environmental Management
105 South Meridian Street
Indianapolis, Indiana 46206-6015

RECEIVED
JAN 7 1994

Subject: Air Pollution Construction Permit Application
Arvin North American Automotive
Franklin, Indiana

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Sincerely,

Douglas A. Logan, P.E.
Director of Environmental Affairs

Regenerative Thermal IWC
Regenerative CWC
Catalytic IWC
Carbon adsorption
Vacuum condensation
low VOC resins
Δ equipment
Δ process → Δ dew point
loss point etc

1531 13th Street, Box Number 3002, Columbus, Indiana 47202 Phone: 812/379-3000 a division of Arvin Industries, Inc.

BACT Analysis

Arvin North American Automotive
Franklin, Indiana
January 6, 1994

Economic analysis of control options for the proposed source is based on potential VOC emissions estimated at 149,000 pounds/year. Cost estimates and analysis are based on the OAQPS Control Coast Manual (4th ed., January 1990). Equipment costs were scaled from 3rd quarter 1989 values to 3rd quarter 1993 (most recent available) using the Marshal & Swift Equipment Cost Index published monthly in **Chemical Engineering** magazine.

Only thermal oxidation systems were studied. Activated carbon adsorption is not feasible because of the possibility of fouling the bed with entrained particulate matter. Catalytic incineration is not feasible because of the risk that the catalyst bed might be poisoned by the silicone resin used in the coating.

Utility cost estimates neglect the heating value of VOC pollutants in the spray booth exhaust. For this application, the VOC concentration is considered too low to contribute significantly to the heating value.

None of the options studied appear to be cost effective for this application.

Control Option #1 - Regenerative Thermal Oxidation

Capital Cost

30,000 SCFM regenerative thermal oxidation unit, 95% recovery sized per Equation 3.28, OAQPS Control Cost Manual, 4th Ed.	$612,000
Instrumentation, taxes, and freight @ 18%	110,000
Purchased Equipment Cost (PEC)	722,000
Installation direct costs @ 30% PEC	217,000
Installation indirect costs @ 31% PEC	224,000
Total Capital Cost (TCC)	$1,163,000

Annual Cost

1. Labor	
a. operator (1/2 hr/shft, 500 shft/yr @ $12.00/hr)	$3,000
b. supervisor @ 15% 1a	500
2. Maintenance	
a. labor (1/2 hr/shft, 500 shft/yr @ $14.00/hr)	3,500
b. materials @ 100% 2a	3,500
3. Utilities, per OAQPS Manual	
a. electricity - 175.5 kW, 4,000 hr/yr @ $0.065/kWh	45,600
b. natural gas - 2.7 MCF/hr, 4,000 hr/yr @ $4.00/MCF	43,200
4. Overhead @ 60% (1a+1b+2a)	4,200
5. Administration, property taxes, and insurance @ 4% TCC	46,500
6. Capital recovery @ 10 yr. and 10% (0.1628)	189,000
Total Annual Cost	$339,000
VOC reduction (149,000 lb. generated @ 98% removal)	146,000
Annual cost per pound of VOC removed	$2.32

Control Option #2 - Regenerative Thermal Oxidation With Recirculating Air

Capital Cost

Single 10,000 SCFM regenerative thermal oxidation unit, 95% recovery sized per Equation 3.28, OAQPS Control Cost Manual, 4th Ed.	$362,000
Additional ductwork for recirculating 67% of spray booth air	80,000
Instrumentation, taxes, and freight @ 18%	65,000
Purchased Equipment Cost (PEC)	507,000
Installation direct costs @ 30% PEC	152,000
Installation indirect costs @ 31% PEC	157,000
Total Capital Cost (TCC)	$816,000

Annual Cost

1. Labor	
a. operator (1/2 hr/shft, 500 shft/yr @ $12.00/hr)	$3,000
b. supervisor @ 15% 1a	500
2. Maintenance	
a. labor (1/2 hr/shft, 500 shft/yr @ $14.00/hr)	3,500
b. materials @ 100% 2a	3,500
3. Utilities, per OAQPS Manual	
a. electricity - 58.5 kW, 4,000 hr/yr @ $0.065/kWh	15,200
b. natural gas - 0.9 MCF/hr, 4,000 hr/yr @ $4.00/MCF	14,400
4. Overhead @ 60% (1a+1b+2a)	4,200
5. Administration, property taxes, and insurance @ 4% TCC	32,600
6. Capital recovery @ 10 yr. and 10% (0.1628)	133,000
Total Annual Cost	$210,000
VOC reduction (149,000 lb. generated @ 98% removal)	146,000
Annual cost per pound of VOC removed	$1.44

Control Option #3 - Recuperative Thermal Oxidation With Recirculating Air

Capital Cost

10,000 SCFM recuperative thermal oxidation unit, 70% recovery sized per Equation 3.27, OAQPS Control Cost Manual, 4th Ed.	$230,000
Additional ductwork for recirculating 67% of spray booth air	80,000
Instrumentation, taxes, and freight @ 18%	41,000
Purchased Equipment Cost (PEC)	351,000
Installation direct costs @ 30% PEC	105,000
Installation indirect costs @ 31% PEC	109,000
Total Capital Cost (TCC)	$565,000

Annual Cost

1. Labor	
a. operator (1/2 hr/shft, 500 shft/yr @ $12.00/hr)	$3,000
b. supervisor @ 15% 1a	500
2. Maintenance	
a. labor (1/2 hr/shft, 500 shft/yr @ $14.00/hr)	3,500
b. materials @ 100% 2a	3,500
3. Utilities, per OAQPS Manual	
a. electricity - 37.05 kW, 4,000 hr/yr @ $0.065/kWh	9,600
b. natural gas - 9 MCF/hr, 4,000 hr/yr @ $4.00/MCF	144,000
4. Overhead @ 60% (1a+1b+2a)	4,200
5. Administration, property taxes, and insurance @ 4% TCC	22,600
6. Capital recovery @ 10 yr. and 10% (0.1628)	92,000
Total Annual Cost	$283,000
VOC reduction (149,000 lb. generated @ 98% removal)	146,000
Annual cost per pound of VOC removed	$1.94

IDENTIFICATION OF POTENTIALLY AFFECTED PERSONS

Please read the attached letter from the Commissioner, and list here any persons whom you have reason to believe have a substantial or proprietary interest in this matter, or could otherwise be considered to be potentially affected under the law. Failure to notify a person who is later determined to be potentially affected could result in voiding our decision on procedural grounds. To ensure conformance with the Administrative Adjudication Act and to avoid reversal of a decision, please list all such parties. Use additional sheets if necessary.

NAME NONE KNOWN

STREET

CITY, STATE, ZIP

NAME

STREET

CITY, STATE, ZIP

NAME

STREET

CITY, STATE, ZIP

NAME

STREET

CITY, STATE, ZIP

NAME

STREET

CITY, STATE, ZIP

NAME

STREET

CITY, STATE, ZIP

CHECK APPROPRIATE BOX

- [x] Construction Permit
- [ ] Operation Permit
- [ ] Variance
- [ ] Other _____

ADDRESS OF SITE:

Street 1001 N. Hurricane st.

City Franklin

Please complete this form by signing the following statement:

I certify that to the best of my knowledge I have listed all potentially affected parties, as defined by IC 4-21.5, known to me. If none are listed it signifies that no such parties are known.

SIGNATURE

PRINTED NAME DOUGLAS A LOGAN

COMPANY Arvin Industries Inc.

DATE 1-6-94

STATE OF INDIANA
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR MANAGEMENT
CONSTRUCTION PERMIT APPLICATION

FORM A-C

RECEIVED
JAN 7 1994
State of Indiana
Department of Environmental Management
Office of Air Management

GENERAL INFORMATION

Company Name Arvin Industries, Inc. Franklin Plant

Phone (317)736-7111

Mailing Address 1001 N. Hurricane (Street, P.O. Box) Franklin (City) 46131 (Zip Code)

New Construction Location 1001 N. Hurricane (No., St., Rd., Hwy.) Franklin (City) Johnson (County)

Person to Contact on Matters of Air Pollution:

Name Douglas A. Logan

Title Director Environmental Affairs & Safety Phone (812)379-3000

If you have changed company name or location in the past six (6) years, please list the previous name(s) and location(s):

Name

Location

Standard Industrial Classification Code 3714
(if you do not know, a short description of business will suffice)

What is being installed? Production Line for Automotive pipe & muffler assemblies.

Is construction an entirely new plant? NO

Estimated Cost of Project$ 3.2 Million

Estimated Cost of Air Pollution Control Equipment$ 340,000

Estimated date construction will start January 1994

Estimated date construction will be complete June 1994

Estimated date operation will begin July 1994

I hereby certify that the information submitted this 6TH day of January 1994 is true and correct to the best of my knowledge.

Signature

Title Vice President

Plans and Specifications Approved By:

Indiana P.E. License No. 910175

DOUGLAS A. LOGAN REGISTERED No. 910175 STATE OF INDIANA PROFESSIONAL ENGINEER

STATE OF INDIANA
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR MANAGEMENT

FORM B

Plant Layout and GEP Stack Height Information Sheet

Company Name Arvin Industries, Inc. Franklin Plant

This permit application must include a plant layout(s) showing the following information:

1. Drawings, several, if necessary, but each one must be to scale, with actual scale shown. All dimensions must be clearly indicated. This includes building heights, widths, and lengths, and their distance relationship with the property line. It should also indicate where fences or other access-limiting features exist.

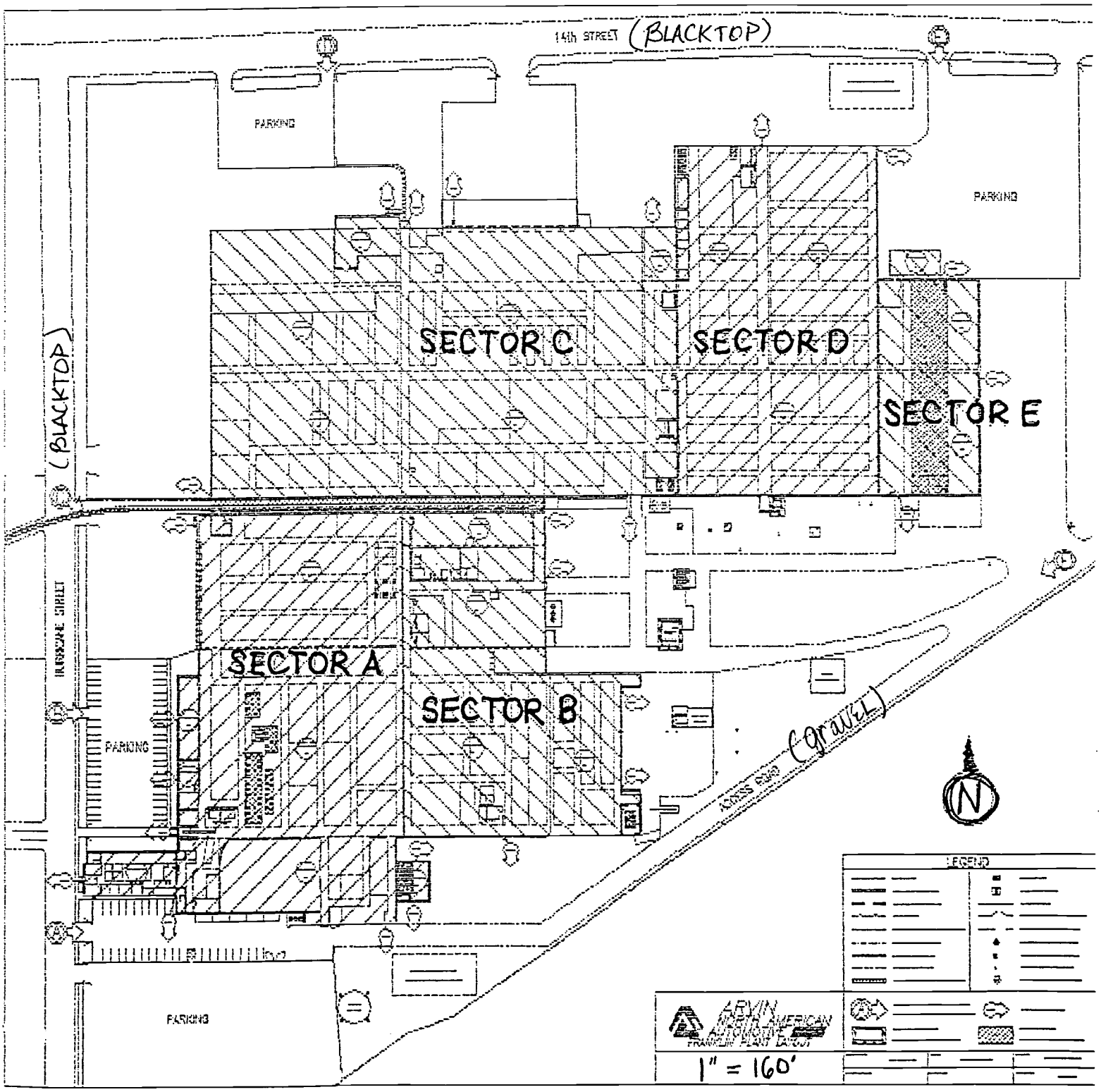
2. The layout must show the location of all emission points (exhaust stacks, roof monitors, control devices, or process vents, etc.). Identify each of these emission points under "Stack Identification" on the appropriate forms.

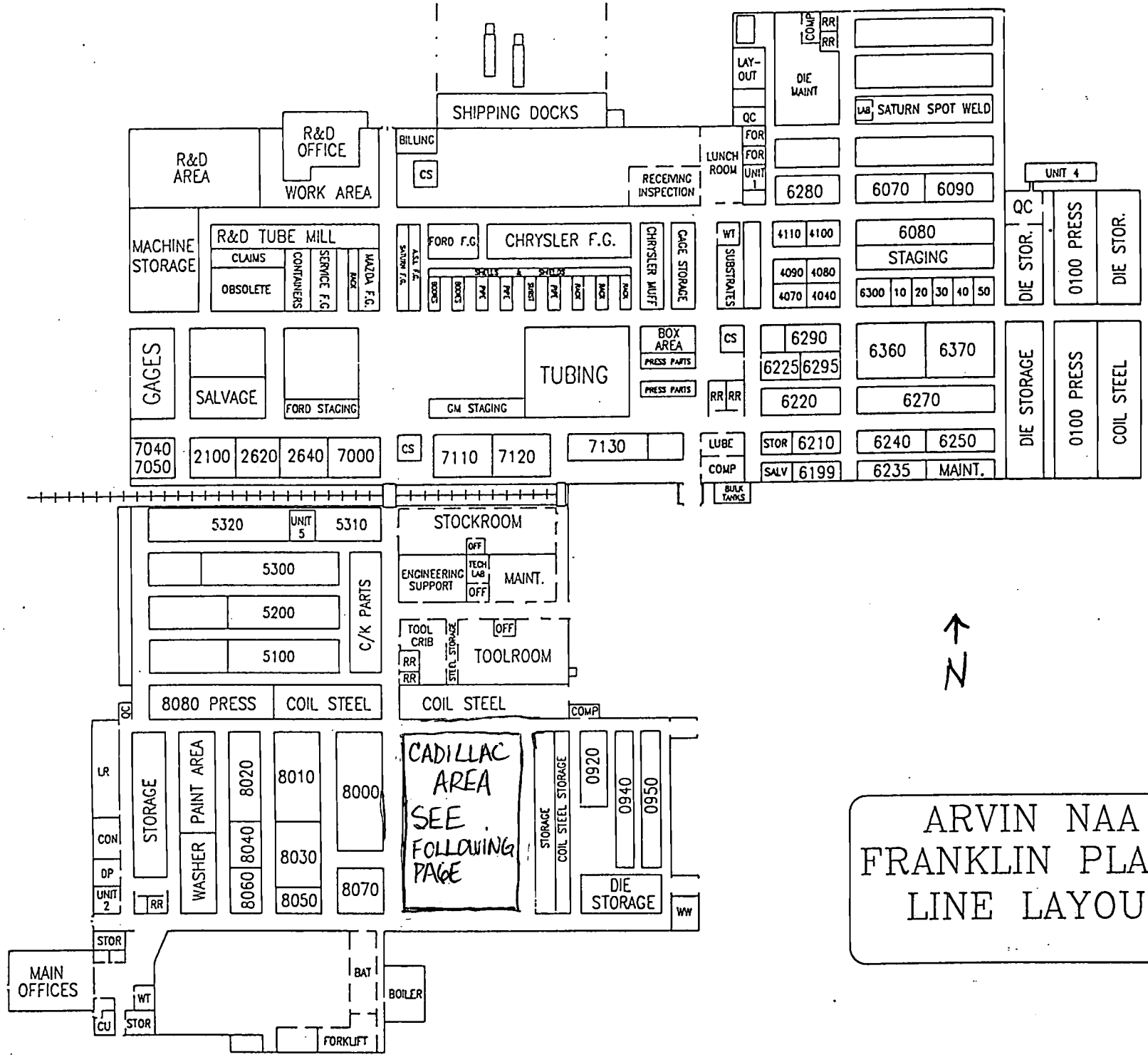
3. The layout(s) must show all roadways and description of roadway surfaces.

4. The layout(s) must include a compass pointing north.

SEE ATTACHED SHEETS

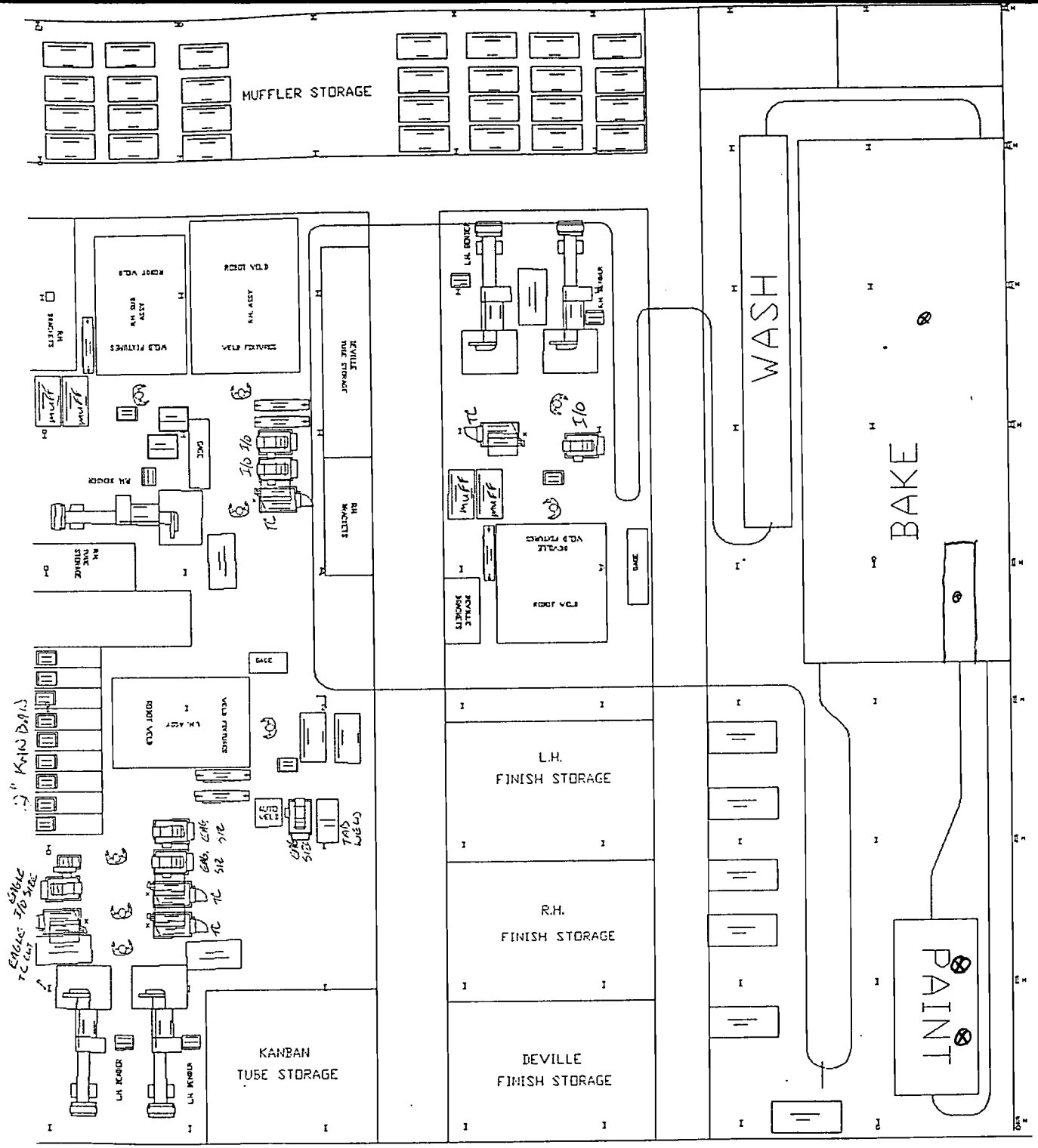
PLANT LAYOUT





ARVIN NAA
FRANKLIN PLANT
LINE LAYOUT

CADILLAC AREA



OVEN EXHAUST
1 - 12" ϕ
7500 CFM

IR PREHEAT EXHAUST
1 - 12" ϕ
7500 CFM

BOOTH EXHAUST
2 - 30" ϕ
30000 CFM TOTAL

FORM C

STATE OF INDIANA
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR MANAGEMENT

Incinerator Information

Not Applicable XXX

Company Name Arvin Industries, Inc. Franklin Plant

Manufacturer _____ Model _____

(Furnish sketch with dimensions)

Design Capacity _____ lb/hr _____ Btu/hr

Type of Waste Burned (Be Specific) _____

_____

Check one: Single Chamber w/Afterburner _____ Multiple Chambers _____

Burner in Primary Chamber? Yes _____ No _____

Burner in Secondary Chamber? Yes _____ No _____

Type of Fuel _____

Chamber	Primary	Secondary
Residence Time (sec)	_____	_____
Temperature (°F)	_____	_____

STACK DATA

Stack Identification _____

Height (ft above ground) _____

Diameter (ft inside) _____

Gas discharge Temperature (°F) _____

Gas Flow Rate (acfm) _____

OPERATION SCHEDULE

Hours/Day _____

Days/Week _____

Weeks/Year _____

Manufacturer's Guaranteed Emission Rate (lb particulate matter per 1,000 lb dry exhaust gas at 70°F and 1 atm, corrected to 50 % excess air) _____

Revised 9/22/83

FORM D

STATE OF INDIANA
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR MANAGEMENT

Fuel Combustion Information
Boilers, Heaters, Ovens or other Fuel Combustion Units (FCU)

Not Applicable _____

Company Name Arvin Industries, Inc. Franklin Plant

Type of FCU	Burner	Burner
FCU Identification	Washer Stage 1	Washer Stage 2
Method of Fuel Feed		
* Capacity (MM Btu/hr input)	1.5	1.5
** Fire Box Volume (cu ft)		
Start of Construction Date	1-94	1-94
Start of Operation Date	7-94	7-94
FUEL		
Type Used	Natural gas	Natural gas
% Ash Min/Max (solid fuel only)		
% Sulfur Min/Max		
Higher Heating Value Min/Max	1 MM BTU/1 MCF	1 MM BTU/1 MCF
Amount Burned/Yr (ton, cu ft, gal)	6000 MCF	6000 MCF
EMISSION CONTROL UNIT		
Type of PM Emission Control Unit	NONE	NONE
% Efficiency		
Type of SO2 Emission Control Unit	NONE	NONE
% Efficiency		
Type of NOx Emission Control Unit	NONE	NONE
% Efficiency		
STACK DATA		
Stack Identification	Exhaust through oven	Exhaust through oven
Height (ft above ground)		
Diameter (ft inside)		
Gas Discharge Temperature (°F)		
Gas Flow Rate (acfm)		
OPERATION SCHEDULE		
Hours/Day	16	16
Days/Week	5	5
Weeks/Year	50	50

* note: MM = million
** complete only if boiler over 100 MM Btu/hr

Revised 10-25-88

FORM D

STATE OF INDIANA
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR MANAGEMENT

Fuel Combustion Information
Boilers, Heaters, Ovens or other Fuel Combustion Units (FCU)

Not Applicable _____

Company Name Arvin Industries, Franklin Plant

Type of FCU	Burner	Burner
FCU Identification	Washer Stage 5	Oven
Method of Fuel Feed		
* Capacity (MM Btu/hr input)	.8	6.4
** Fire Box Volume (cu ft)		
Start of Construction Date	1-94	1-94
Start of Operation Date	7-94	7-94
FUEL		
Type Used	Natural gas	Natural gas
% Ash Min/Max (solid fuel only)		
% Sulfur Min/Max		
Higher Heating Value Min/Max	1 MM BTU/1 MCF	1 MM BTU/1 MCF
Amount Burned/Yr (ton, cu ft, gal)	3200 MCF	26,600 MCF MAXIMUM
EMISSION CONTROL UNIT		
Type of PM Emission Control Unit	NONE	NONE
% Efficiency		
Type of SO2 Emission Control Unit	NONE	NONE
% Efficiency		
Type of NOx Emission Control Unit	NONE	NONE
% Efficiency		
STACK DATA		
Stack Identification	Exhaust through oven	oven Exhaust
Height (ft above ground)		30'
Diameter (ft inside)		1'
Gas Discharge Temperature (°F)		450°
Gas Flow Rate (acfm)		7500 CFM
OPERATION SCHEDULE		
Hours/Day	16	16
Days/Week	5	5
Weeks/Year	50	50

* note: MM = million
** complete only if boiler over 100 MM Btu/hr

Revised 10-25-88

STATE OF INDIANA
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR MANAGEMENT

FORM E

Process Information

Not Applicable _____

Company Name Arvin Industries, Inc.

Products Produced Automotive pipe & muffler assemblies

Raw Material Rate (use an additional sheet if needed)

TYPE MATERIAL	RATE(LB/HR)
WABASH KB809HSHH	58

Finished Product

Pounds/Hour Maximum Not Determined Normal _____

Process and Control Equipment (Use an additional sheet if needed)
Process Identification:

1 Binks paint booth W/ parts washer, Dry off & Bake oven.

Type of Control Andreae filter
Efficiency 90%
For Dry Collectors, Tons/year Collected N/A
STACK DATA
Stack Identification NONE

Height (ft. above ground) 29' agl

Diameter (ft. inside) 2.83'

Gas Discharge Temperature (Deg F) Ambient

Gas Flow Rate (acfm) 30,000 cfm

Operation Schedule

Hours/Day 16
Days/Week 5
Weeks/Year 50

STATE OF INDIANA
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR MANAGEMENT

FORM F

Flow Diagram

Not Applicable ___ ___

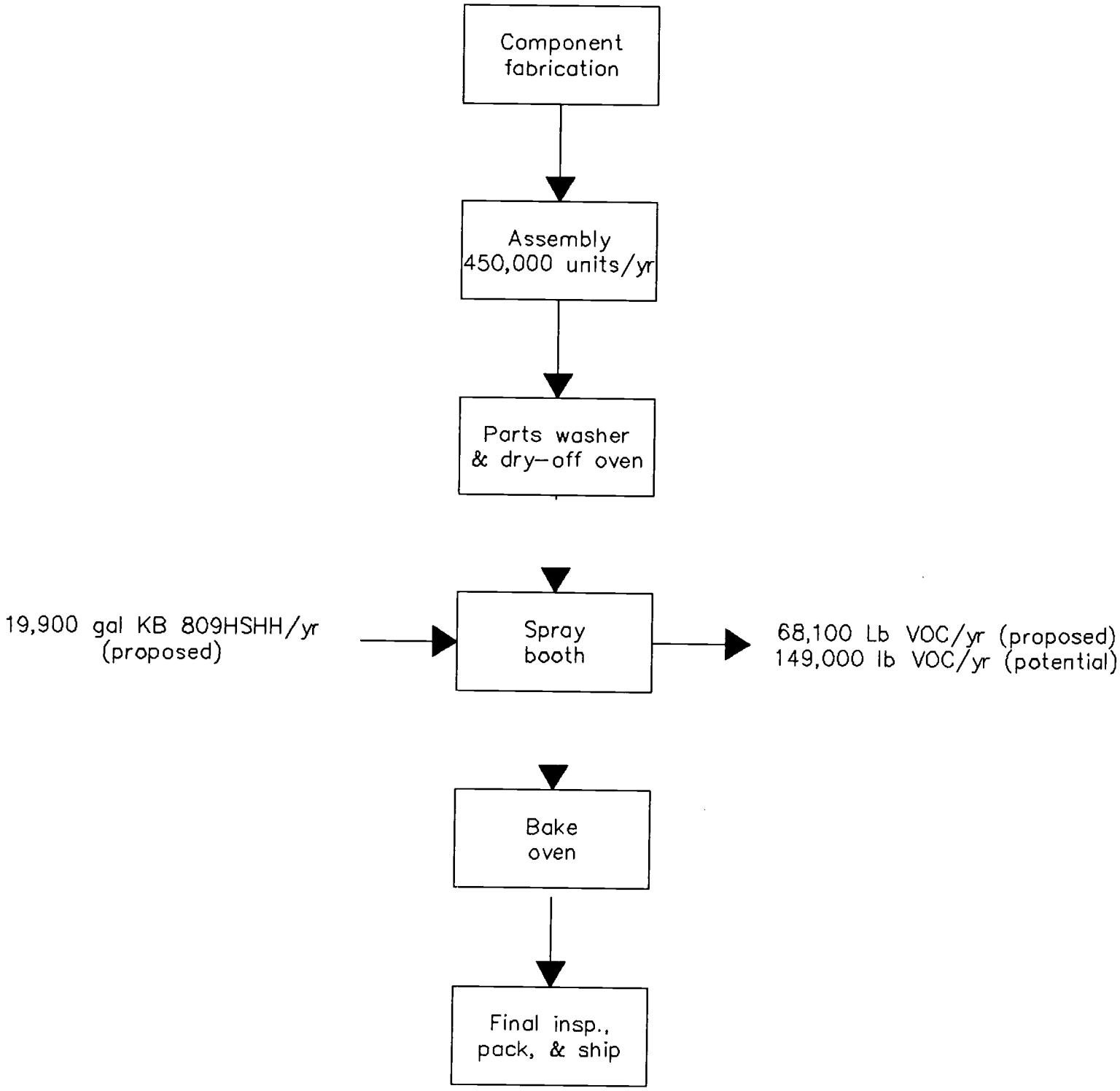
Company Name Arvin Industries, Franklin Plant

This permit application must include a simple flow diagram of your operation from raw materials input to the finished products. Show points of emission including stacks. Show location of air pollution control equipment, the process it controls, and removal efficiency. State the maximum hourly capacity of each step of the operation.

*Please see attached sheet.

Process Flow Diagram

Arvin NAA
Franklin Plant
January 6, 1994



FORM G

STATE OF INDIANA
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR MANAGEMENT

Storage and Handling of Bulk Material

Not Applicable XXX

Company Name Arvin Industries, Inc., Franklin Plant

Material Handled or Stored	Method of Handling	Silo, Bin or Pile	Storage Capacity (Tons)	Maximum Throughput (Tons/Yr)	(Lb/Hr)

Dust Control Methods

Process

Type of Control

Efficiency

FORM Q

Indiana Department of Environmental Management
Office of Air Management

PARTICULATE CONTROL DEVICES

GENERAL INFORMATION

Emission point identification (complete a separate page for each device) Spray booth exhaust

Percent of Particulate Matter less than 10 microns at the outlet Not known %

Grain loading per actual cubic foot of outlet air .01, Average gas Temperature Ambient °F

Design percentage collection efficiency 90 % (1- Weight Leaving) X100
(Weight Entering)

SPECIFIC COLLECTOR INFORMATION

A. CYCLONE

Number of tubes_____, Tube diameter _____in.

B. BAGHOUSE

Bag material_____

Total filter area_____ft^2, Air to cloth ratio_____$acfm/ft^2$

Pressure drop across baghouse_____inches of water

Method of bag cleaning (ie. shaking, jetpulse etc...)_____

C. ELECTROSTATIC PRECIPITATOR (ESP)

Type of ESP: Wet_____, Dry_____, Hot Side_____, Cold Side_____

Face velocity across the plates_____ft/sec, Total face surface area_____ft^2

Number of fields along flow path_____, Gas conditioning agent_____

Delay time between starting of system and ESP unit operation_____

Why?_____

D. WET COLLECTORS (Scrubber Type_____)

Pressure drop across scrubber_____inches of water, Flow Rate_____gpm

Scrubbing liquor_____, Liquid to air ratio_____$gpm/10^3 acfm$

Is there a demister following the scrubber?_____

Settling pond: volume_____ft^3, Depth_____ft, Width_____ft, Length_____ft,

Diameter (if circular)_____ft

Revised 8/11/88

STATE OF INDIANA
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR MANAGEMENT

SURFACE COATING AND ACCESSORY SOLVENTS

Company Name Arvin Industries, Inc. Franklin Plant

1 Material (Coatings, Solvents, Etc.)	2 Identification Number	3 Material Density Lb / Gal	4 Weight % Volatiles (Water and Organics)	5 Weight % Water	6 Volume % Water	7 Volume % Non-volatiles (Solids)	8 Gallons of Material* Required for One Production Unit Gal / Production Unit	9 Maximum Number of Production Units per Hour	10 Actual** Usage Gal/Yr	11 Process or Booth I. D.
Coatings	KB809HSHH	11.7	.293	0	0	52	.043	111		Binks

* If different types or sizes of units are coated in the same paint booth with the same coating, this amount should be based on the production unit requiring the most gallons per hour. Gallons per hour = Column 8 x Column 9. If different coatings are used, they must be listed as a separate material.

** Complete this column for operation permit renewals only.

Attach a Material Safety Data Sheet (MSDS) for each material listed. DO NOT SEND THE ENTIRE MSDS. The required sections are: Section I (Product Identification), Section II (Composition Information), and Section III (Physical Property Information).

Density, Weight % Volatiles, and Weight % Water are determined by methods listed in 326 IAC 8-1-4

Revised 7-16-91

Form W-1

Form W-2

STATE OF INDIANA
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR MANAGEMENT

SURFACE COATING AND ACCESSORY SOLVENTS

Company Name Arvin Industries Inc., Franklin Plant

Process or Booth Identification (1)	Cadillac line BINKS			
Application Method (2)	Spray			
If sprayed Specify type (3)	HVLP			
Type of Overspray controls (4)	Dry filter			
Control Efficiency	90%			
Type of Hydrocarbon controls (5)	NONE			
Control Efficiency	N/A			
Stack Height (feet above ground)	29 feet			
Stack Diameter (inches)	30 inches			
Exhaust flow Rate (acfm)	30,000 CFM			
Exhaust Discharge Temperature °F	Ambient			

Operating Schedule: 16 hours/day 5 days/week 50 weeks/year

1. Use identifiers from forms B and F.

2. Method of application refers to dipping, spraying, rollcoating, brushing, flowcoating, or other.

3. Types of spray coating include: air atomization, airless, electrostatic disc, electrostactic airless, electrostatic air atomized, low pressure air atomization, low pressure-high volume, or other.

4. Overspray controls include: dry and wet filters, baffles, waterwash, or other.

5. Hydrocarbon controls include: catalytic or direct flame incineration, solvent recovery, carbon adsorption, or other.

Revised 8-23-88

FORM Y1
7-29-91

STATE OF INDIANA
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR MANAGEMENT

Air Toxic Pollutants

Company Name Arvin Industries, Inc.

Location Franklin Plant

Place an "X" beside each compound listed on forms Y1 through Y4 that will be emitted into the air from the equipment covered in this application. Attach **Sections I, II, and III (only)** of Material Safety Data Sheets (MSDS) for each toxic containing material. List all emission points (as identified on the site plot plan) for each compound. **Include stack parameters for each listed air toxic emission point on the appropriate form.**

X	CAS NUMBER	CHEMICAL NAME	EMISSION POINTS	MAXIMUM EMISSION RATE (POUNDS/HR)
	00075070	Acetaldehyde		
	00060355	Acetamide		
	00075058	Acetonitrile		
	00098862	Acetophenone		
	00053963	2-Acetylaminofluorine		
	00107028	Acrolein		
	00079061	Acrylamide		
	00079107	Acrylic Acid		
	00107131	Acrylonitrile		
	00107051	Allyl chloride		
	00092671	4-Aminodiphenyl		
	00062533	Aniline		
	29191524	o-Anisidine		
	01332214	Asbestos		
	00071432	Benzene (including from gasoline)		
	00092875	Benzidine		
	00098077	Benzotrichloride		
	00100447	Benzyl chloride		
	00092524	Biphenyl		
	00117817	Bis (2-ethylhexyl) phthalate		
	00542881	Bis(chloromethyl)ether		
	00075252	Bromoform		
	00106990	1,3-Butadiene		
	00156627	Calcium cyanamide		
	00105602	Caprolactam		
	00133062	Captan		
	00063252	Carbaryl		
	00075150	Carbon disulfide		
	00056235	Carbon tetrachloride		
	00463581	Carbonyl sulfide		
	00120809	Catechol (1,2-dihydroxylbenzene)		
	00133904	Chloramben		
	00057749	Chlordane		
	07782505	Chlorine		
	00079118	Chloroacetic acid		
	00532274	2-Chloroacetophenone		
	00108907	Chlorobenzene		
	00510156	Chlorobenzilate		
	00067663	Chloroform		
	00107302	Chloromethyl methyl ether		
	00126998	Chloroprene		
	01319773	Cresols/Cresylic acid (isomers and mixtures)		
	00095487	o-Cresol		
	00108394	m-Cresol		
	00106445	p-Cresol		
	00098828	Cumene		
	00095757	2,4-D, salts and esters		
	03547044	DDE		

FORM Y2
7-29-91

STATE OF INDIANA
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR MANAGEMENT

Air Toxic Pollutants

X	CAS NUMBER	CHEMICAL NAME	EMISSION POINTS	MAXIMUM EMISSION RATE (POUNDS/HR)
___	00334883	Diazomethane	___	___
___	00132649	Dibenzofurans	___	___
___	00096128	1,2-Dibromo-3-chloropropane	___	___
___	00084742	Dibutylphthalate	___	___
___	00106467	1,4-Dichlorobenzene (p)	___	___
___	00091941	3,3-Dichlorobenzidene	___	___
___	00111444	Dichloroethyl ether (Bis (2-chloroethyl)ether)	___	___
___	00542756	1,3-Dichloropropene	___	___
___	00062737	Dichlorvos (DDVP)	___	___
___	00111422	Diethanolamine	___	___
___	00121697	N,N-Diethyl aniline (N,N-Dimethylaniline)	___	___
___	00064675	Diethyl sulfate	___	___
___	00119904	3,3'-Dimethoxybenzidine	___	___
___	00060117	Dimethyl aminoazobenzene	___	___
___	00119937	3,3'-Dimethyl benzidine	___	___
___	00079447	Dimethyl carbamoyl chloride	___	___
___	00068122	Dimethyl formamide	___	___
___	00057147	1,1-Dimethyl hydrazine	___	___
___	00131113	Dimethyl phthalate	___	___
___	00077781	Dimethyl Sulfate	___	___
___	00534521	4,6-Dinitro-o-cresol, and salts	___	___
___	00051285	2,4-Dinitrophenol	___	___
___	00121142	2,4-Dinitrotoluene	___	___
___	00123911	1,4-Dioxane (1,4-Diethyleneoxide)	___	___
___	00122667	1,2-Diphenylhydrazine	___	___
___	00106898	Epichlorohydrine (1-Chloro-2,3-epoxypropane)	___	___
___	00106887	1,2-Epoxybutane	___	___
___	00140885	Ethyl acrylate	___	___
___	00100414	Ethyl benzene	___	___
___	00051796	Ethyl carbamate (Urethane)	___	___
___	00075003	Ethyl chloride (Chloroethane)	___	___
___	00106934	Ethylene dibromide (Dibromoethane)	___	___
___	00107062	Ethylene dichloride (1,2-Dichloroethane)	___	___
___	00107211	Ethylene Glycol	___	___
___	00151564	Ethylene imine (Aziridine)	___	___
___	00075218	Ethylene Oxide	___	___
___	00096457	Ethylene thiourea	___	___
___	00075343	Ethylidene dichloride (1,1-Dichloroethane)	___	___
___	00050000	Formaldehyde	___	___
___	00076448	Heptachlor	___	___
___	00118741	Hexachlorobenzene	___	___
___	00087683	Hexachorobutadiene	___	___
___	00077474	Hexachlorocyclopentadiene	___	___
___	00067721	Hexachloroethane	___	___
___	00822060	Hexamethylene-1,6-diisocyanate	___	___
___	00680319	Hexamethylphosphoramide	___	___
___	00110543	Hexane	___	___
___	00302012	Hydrazine	___	___
___	07647010	Hydrochloric acid	___	___
___	07664393	Hydrogen fluoride (Hydrofluoric acid)	___	___
___	07788064	Hydrogen sulfide	___	___
___	00123319	Hydroquinone	___	___
___	00078591	Isophorone	___	___
___	00058899	Lindane (all isomers)	___	___
___	00108316	Maleic anhydride	___	___
___	00067561	Methanol	___	___
___	00072435	Methoxychlor	___	___

ARVIN
NORTH AMERICAN AUTOMOTIVE

RECEIVED

JAN 31 1994

State Of Indiana
Department of Environmental Management
Office Of Air Management

January 27, 1994

addl info
CP# 081-3484

By Certified Mail

Ms. Peggy Flickinger
Office of Air Management
Indiana Department of Environmental Management
100 North Senate Avenue
Indianapolis, Indiana 46206-6015

Subject: Permit Application Revision
Arvin North American Automotive
Franklin, Indiana

Dear Ms. Flickinger:

We have just been told of a change in customer requirements for the paint system proposed for our Franklin plant. In place of the Wabash KB-809 HHHS described in our January 6, 1994 application we must use Wabash KB-318 HSHH. The new coating has a slightly higher weight percentage of solids and contains less xylene.

A process flow diagram, Form W-1, Form Y, and BACT analysis revised to account for the new paint and sections of the MSDS for KB-318 HSHH are attached.

I apologize for any inconvenience, but our customers do not always accommodate our regulatory compliance requirements in their planning. Please contact me at (812) 379-3575 if there are any questions about this matter.

Sincerely,

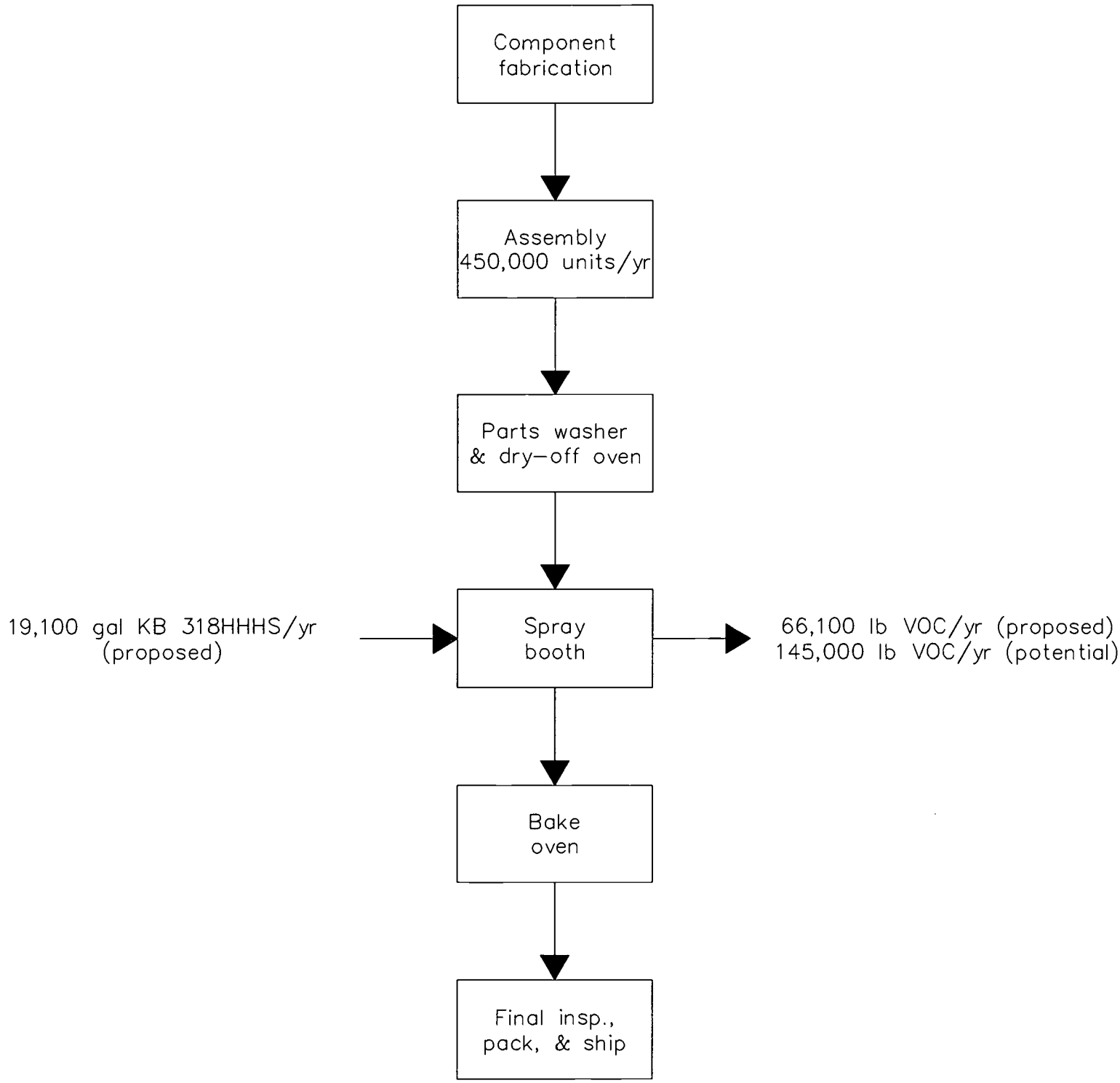
Douglas A. Logan, P.E.
Director of Environmental Affairs and Safety

attachments

1531 13th Street, Box Number 3002, Columbus, Indiana 47202 Phone: 812/379-3000 a division of Arvin Industries, Inc.

Process Flow Diagram

Arvin NAA
Franklin Plant
Revision
January 25, 1994



STATE OF INDIANA
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR MANAGEMENT

REVISION - 25 JAN 94

SURFACE COATING AND ACCESSORY SOLVENTS

Company Name ARVIN INDUSTRIES INC - FRANKLIN PLANT

1 Material (Coatings, Solvents, Etc.)	2 Identification Number	3 Material Density Lb / Gal	4 Weight % Volatiles (Water and Organics)	5 Weight % Water	6 Volume % Water	7 Volume % Non-volatiles (Solids)	8 Gallons of Material* Required for One Production Unit Gal / Production Unit	9 Maximum Number of Production Units per Hour	10 Actual** Usage Gal/Yr	11 Process or Booth I. D.
COATING	KB-318HHNS	12.35	28	0	0	52	0.043	111		BINKS

* If different types or sizes of units are coated in the same paint booth with the same coating, this amount should be based on the production unit requiring the most gallons per hour. Gallons per hour = Column 8 x Column 9. If different coatings are used, they must be listed as a separate material.

** Complete this column for operation permit renewals only.

Attach a Material Safety Data Sheet (MSDS) for each material listed. DO NOT SEND THE ENTIRE MSDS. The required sections are: Section I (Product Identification), Section II (Composition Information), and Section III (Physical Property Information).

Density, Weight % Volatiles, and Weight % Water are determined by methods listed in 326 IAC 8-1-4

Revised 7-16-91

Form W-1

REVISION 25 JAN 94

FORM Y1
7-29-91

STATE OF INDIANA
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR MANAGEMENT

Air Toxic Pollutants

Company Name ARVIN INDUSTRIES INC

Location FRANKLIN PLANT

Place an "X" beside each compound listed on forms Y1 through Y4 that will be emitted into the air from the equipment covered in this application. Attach **Sections I, II, and III (only)** of Material Safety Data Sheets (MSDS) for each toxic containing material. List all emission points (as identified on the site plot plan) for each compound. **Include stack parameters for each listed air toxic emission point on the appropriate form.**

X	CAS NUMBER	CHEMICAL NAME	EMISSION POINTS	MAXIMUM EMISSION RATE (POUNDS/HR)
___	00075070	Acetaldehyde		
___	00060355	Acetamide		
___	00075058	Acetonitrile		
___	00098862	Acetophenone		
___	00053963	2-Acetylaminofluorine		
___	00107028	Acrolein		
___	00079061	Acrylamide		
___	00079107	Acrylic Acid		
___	00107131	Acrylonitrile		
___	00107051	Allyl chloride		
___	00092671	4-Aminodiphenyl		
___	00062533	Aniline		
___	29191524	o-Anisidine		
___	01332214	Asbestos		
___	00071432	Benzene (including from gasoline)		
___	00092875	Benzidine		
___	00098077	Benzotrichloride		
___	00100447	Benzyl chloride		
___	00092524	Biphenyl		
___	00117817	Bis (2-ethylhexyl) phthalate		
___	00542881	Bis(chloromethyl)ether		
___	00075252	Bromoform		
___	00106990	1,3-Butadiene		
___	00156627	Calcium cyanamide		
___	00105602	Caprolactam		
___	00133062	Captan		
___	00063252	Carbaryl		
___	00075150	Carbon disulfide		
___	00056235	Carbon tetrachloride		
___	00463581	Carbonyl sulfide		
___	00120809	Catechol (1,2-dihydroxylbenzene)		
___	00133904	Chloramben		
___	00057749	Chlordane		
___	07782505	Chlorine		
___	00079118	Chloroacetic acid		
___	00532274	2-Chloroacetophenone		
___	00108907	Chlorobenzene		
___	00510156	Chlorobenzilate		
___	00067663	Chloroform		
___	00107302	Chloromethyl methyl ether		
___	00126998	Chloroprene		
___	01319773	Cresols/Cresylic acid (isomers and mixtures)		
___	00095487	o-Cresol		
___	00108394	m-Cresol		
___	00106445	p-Cresol		
___	00098828	Cumene		
___	00095757	2,4-D, salts and esters		
___	03547044	DDE		

REVISION 25 JAN 94

FORM Y2
7-29-91

STATE OF INDIANA
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR MANAGEMENT

Air Toxic Pollutants

X	CAS NUMBER	CHEMICAL NAME	EMISSION POINTS	MAXIMUM EMISSION RATE (POUNDS/HR)
___	00334883	Diazomethane	___	___
___	00132649	Dibenzofurans	___	___
___	00096128	1,2-Dibromo-3-chloropropane	___	___
___	00084742	Dibutylphthalate	___	___
___	00106467	1,4-Dichlorobenzene (p)	___	___
___	00091941	3,3-Dichlorobenzidene	___	___
___	00111444	Dichloroethyl ether (Bis (2-chloroethyl)ether)	___	___
___	00542756	1,3-Dichloropropene	___	___
___	00062737	Dichlorvos (DDVP)	___	___
___	00111422	Diethanolamine	___	___
___	00121697	N,N-Diethyl aniline (N,N-Dimethylaniline)	___	___
___	00064675	Diethyl sulfate	___	___
___	00119904	3,3'-Dimethoxybenzidine	___	___
___	00060117	Dimethyl aminoazobenzene	___	___
___	00119937	3,3'-Dimethyl benzidine	___	___
___	00079447	Dimethyl carbamoyl chloride	___	___
___	00068122	Dimethyl formamide	___	___
___	00057147	1,1-Dimethyl hydrazine	___	___
___	00131113	Dimethyl phthalate	___	___
___	00077781	Dimethyl Sulfate	___	___
___	00534521	4,6-Dinitro-o-cresol, and salts	___	___
___	00051285	2,4-Dinitrophenol	___	___
___	00121142	2,4-Dinitrotoluene	___	___
___	00123911	1,4-Dioxane (1,4-Diethyleneoxide)	___	___
___	00122667	1,2-Diphenylhydrazine	___	___
___	00106898	Epichlorohydrine (1-Chloro-2,3-epoxypropane)	___	___
___	00106887	1,2-Epoxybutane	___	___
___	00140885	Ethyl acrylate	___	___
___	00100414	Ethyl benzene	___	___
___	00051796	Ethyl carbamate (Urethane)	___	___
___	00075003	Ethyl chloride (Chloroethane)	___	___
___	00106934	Ethylene dibromide (Dibromoethane)	___	___
___	00107062	Ethylene dichloride (1,2-Dichloroethane)	___	___
___	00107211	Ethylene Glycol	___	___
___	00151564	Ethylene imine (Aziridine)	___	___
___	00075218	Ethylene Oxide	___	___
___	00096457	Ethylene thiourea	___	___
___	00075343	Ethylidene dichloride (1,1-Dichloroethane)	___	___
___	00050000	Formaldehyde	___	___
___	00076448	Heptachlor	___	___
___	00118741	Hexachlorobenzene	___	___
___	00087683	Hexachorobutadiene	___	___
___	00077474	Hexachlorocyclopentadiene	___	___
___	00067721	Hexachloroethane	___	___
___	00822060	Hexamethylene-1,6-diisocyanate	___	___
___	00680319	Hexamethylphosphoramide	___	___
___	00110543	Hexane	___	___
___	00302012	Hydrazine	___	___
___	07647010	Hydrochloric acid	___	___
___	07664393	Hydrogen fluoride (Hydrofluoric acid)	___	___
___	07788064	Hydrogen sulfide	___	___
___	00123319	Hydroquinone	___	___
___	00078591	Isophorone	___	___
___	00058899	Lindane (all isomers)	___	___
___	00108316	Maleic anhydride	___	___
___	00067561	Methanol	___	___
___	00072435	Methoxychlor	___	___

REVISION 25 JAN 94

FORM Y3
7-29-91

STATE OF INDIANA
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR MANAGEMENT

Air Toxic Pollutants

X	CAS NUMBER	CHEMICAL NAME	EMISSION POINTS	MAXIMUM EMISSION RATE (POUNDS/HR)
___	00074839	Methyl Bromide (Bromomethane)		
___	00074873	Methyl chloride (Chloromethane)		
___	00071556	Methyl Chloroform (1,1,1-Trichloroethane)		
___	00078933	Methyl ethyl ketone (2-Butanone)		
___	00060344	Methyl hydrazine		
___	00074884	Methyl iodide (Iodomethane)		
___	00108101	Methyl isobutyl ketone (Hexone)		
___	00624839	Methyl isocyanate		
___	00080626	Methyl methacrylate		
___	01634044	Methyl tert butyl ether		
___	00101144	4,4-Methylene bis(2-chloroaniline)		
___	00075092	Methylene chloride (Dichloromethane)		
___	00101688	Methylene diphenyl diisocyanate (MDI)		
___	00101779	4,4'-Methylenedianiline		
___	00091203	Naphthalene		
___	00098953	Nitrobenzene		
___	00092933	4-Nitrobiphenyl		
___	00100027	4-Nitrophenol		
___	00079469	2-Nitropropane		
___	00684935	N-Nitroso-N-methylurea		
___	00062759	N-Nitrosodimethylamine		
___	00059892	N-Nitrosomorpholine		
___	00056382	Parathion		
___	00082688	Pentachloronitrobenzene (Quintobenzene)		
___	00087865	Pentachlorophenol		
___	00108952	Phenol		
___	00106503	p-Phenylenediamine		
___	00075445	Phosgene		
___	07803512	Phosphine		
___	07723140	Phosphorus		
___	00085449	Phthalic anhydride		
___	01336363	Polychlorinated biphenyls (Aroclors)		
___	01120714	1,3-Propane sultone		
___	00057578	beta-Propiolactone		
___	00123386	Propionaldehyde		
___	00114261	Propoxur (Baygon)		
___	00078875	Propylene dichloride (1,2-Dichloropropane)		
___	00075569	Propylene Oxide		
___	00075558	1,2-Propylenimine (2-Methyl aziridine)		
___	00091225	Quinoline		
___	00106514	Quinone		
___	00100425	Styrene		
___	00096093	Styrene oxide		
___	01746016	2,3,7,8-Tetrachlorodibenzo -p-dioxin		
___	00079345	1,1,2,2-Tetrachloroethane		
___	00127184	Tetrachloroethylene (Perchloroethylene)		
___	07550450	Titanium tetrachloride		
___	00108883	Toluene		
___	00095807	2,4-Toluene diamine		
___	00584849	2,4-Toluene diisocyanate		
___	00095534	o-Toluidine		
___	08001352	Toxaphene (chlorinated camphene)		
___	00120821	1,2,4-Trichlorobenzene		
___	00079005	1,1,2-Trichloroethane		
___	00079016	Trichloroethylene		
___	00095954	2,4,5-Trichlorophenol		

REVISION 25 JAN 94

FORM Y4
7-29-91

STATE OF INDIANA
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR MANAGEMENT

Air Toxic Pollutants

X	CAS NUMBER	CHEMICAL NAME	EMISSION POINTS	MAXIMUM EMISSION RATE (POUNDS/HR)
___	00088062	2,4,6-Trichlorophenol		
___	00121448	Triethylamine		
___	01582098	Trifluralin		
___	00540841	2,2,4-Trimethylpentane		
___	00108054	Vinyl acetate		
___	00593602	Vinyl bromide		
___	00075014	Vinyl Chloride		
___	00075354	Vinylidene chloride (1,1-Dichloroethylene)		
X	01330207	Xylenes (isomers and mixture)	BOOTH	7.4
___	00095476	o-Xylenes		
___	00108383	m-Xylenes		
___	00106423	p-Xylenes		
___		Antimony Compounds		
___		Arsenic Compounds (inorganic including arsine)		
___		Beryllium Compounds		
___		Cadmium Compounds		
___		Chromium Compounds		
___		Cobalt Compounds		
___		Coke Oven Emissions		
___		Cyanide Compounds[1]		
X		Glycol ethers[2]	BOOTH	2.4
___		Lead Compounds		
___		Manganese Compounds		
___		Mercury Compounds		
___		Mineral Fibers[3]		
___		Nickel Compounds		
___		Polycyclic Organic Matter[4]		
___		Radionuclides (Including Radon)[5]		
___		Selenium Compounds		
___		**NONE OF THE COMPOUNDS LISTED ON FORMS Y1 THROUGH Y4 WILL BE EMITTED FROM THE EQUIPMENT LISTED IN THIS APPLICATION.**		

NOTE: FOR ALL LISTINGS ABOVE WHICH CONTAIN THE WORD "COMPOUND" AND FOR GLYCOL ETHERS THESE LISTINGS ARE DEFINED AS INCLUDING ANY UNIQUE CHEMICAL SUBSTANCE THAT CONTAINS THE NAMED CHEMICAL AS PART OF THAT CHEMICAL'S INFRASTRUCTURE.

1 X'CN where X=H' or any other group where a formal dissociation may occur. For example KCN or $Ca(CN)_2$

2 includes mono- and di- ethers of ethylene glycol, diethylene glycol, and triethylene glycol R-(OCH2CH2)n-OR' where: n= 1, 2, or 3; R= alkyl or aryl groups; and R'= R, H, or groups which, when removed, yield glycol ethers with the structure R-(OCH2CH2)n-OH. Polymers are excluded from the glycol category.

3 includes mineral fiber emissions from facilities manufacturing or processing glass, rock, or slag fibers (or other mineral derived fibers) of average diameter 1 micrometer or less.

4 includes organic compounds with more than one benzene ring, and which have a boiling point greater than or equal to 100 degrees Celsius.

5 a type of atom which spontaneously undergoes radioactive decay.

DO NOT SEND ENTIRE MATERIAL SAFETY DATA SHEETS (MSDS). The required sections are: Section I (Product Identification), Section II (Composition Information), and Section III (Physical Property Information).

MATERIAL SAFETY DATA SHEET FOR KB- 318HH HISOL

COMPLIES WITH OSHA STANDARD TITLE 29CFR1910.1200

HEALTH 2*
FLAMMABILITY 2
REACTIVITY
PERSONAL
PROTECTION

FROM: WABASH PRODUCTS CO., TERRE HAUTE, IN
EMERGENCY TELEPHONE 800-424-9300

TO: ARVIN AUTOMOTIVE
FOR: WABASH PART NUMBER KB- 318HH HISOL
DESCRIPTION 3.50 VOC HIHEAT BLACK
TO:

MSDS DATE (YYMMDD) 921218
SEQUENCE # 921218999

**** 1. HAZARDOUS INGREDIENTS ****

COMMON NAME HAZARD TYPE	CAS NUMBER	EXPOSURE LIMITS	PPM	mg/M	LEL %	VAPOR PRES mm Hg @ 20'C
(1) XYLENE FLAMMABLE	1330-20-7	PEL TLV	100 100		1.00	5.10
(3)HIGH F. NAPHTHA FLAMMABLE	64742-95-6	 TLV	 25		.69	NOT SUPPLIED
SOLVESSO 150 FLAMMABLE	64742-94-5	 TLV	 100		1.00	NOT SUPPLIED
GLYCOL ETHER P.M. (1) FLAMMABLE	107-98-2	 TLV	 100		3.00	10.90
OXO-HEPTYL ACETATE FLAMMABLE	90438-79-2	PEL TLV	50 50		NOT GIVEN	.80
(1)GLYCOL ETHER DB FLAMMABLE	112-34-5	PEL	25		.84	.10
BUTYL CELLOSOLVE FLAMMABLE	111-76-2	PEL TLV	50 25		1.09	.90

**** 2. PHYSICAL DATA ****

APPEARANCE IS COLOR BLACK PAINT DENSITY IS 12.4 LBS/GAL
VAPOR DENSITY (X) HEAVIER ( ) LIGHTER THEN AIR
EVAPORATION RATE IS (X) SLOWER ( ) FASTER THAN ETHER
BOILING RANGE FROM 243 TO 446 (DEG F)

**** 3. FIRE AND EXPLOSIVE HAZARD DATA ****

FLASH POINT (°F) CC 80 OSHA CLASS - FLAMMABLE LIQUID - CLASS 1C
UN NUMBER 1993 DOT CLASS - FLAMMABLE LIQUID
LOWER EXPLOSIVE LIMIT (% BY VOLUME IN AIR) - 0.70
EXTINGUISHING MEDIA: Carbon dioxide or Dry Chemicals for small fires.
Foam for large fires.
CAUTION - Closed containers may build explosive pressure from heat.
Vapors are heavier then air and may travel along the ground or may be moved by ventilation and ignited by pilot lights,other flames,sparks heaters,smoking,electric motors,static discharge, or ignition sources at locations distant from material handling point.
NEVER USE WELDING OR CUTTING TOURCH ON OR NEAR DRUM (EVEN EMPTY) because product (or residue) can ignite explosively
SPECIAL FIRE FIGHTING PROCEDURE: cool closed containers with water spray.

HAZARDOUS DECOMPOSITION PRODUCTS: May form toxic materials:, Carbon Dioxide, Carbon Monoxide, Various Hydrocarbons, Etc.

**** 4. REACTIVITY DATA ****

STABILITY (X) STABLE ( ) UNSTABLE
HAZARDOUS POLYMERIZATION (X) WILL NOT OCCURE ( ) MAY OCCURE
HAZARDOUS DECOMPOSITION - FUMES MAY CONTAIN THE HAZARDOUS MATERIALS LISTED ABOVE.

CONDITIONS AND MATERIALS TO BE AVOIDED
Excess heat, sparks, and open flame

Avoid contact with strong oxidizing agents

Decomposition may produce carbon monoxide and/or carbon dioxide.

Avoid extended contact with air or oxygen.

Incomplete combustion will generate highly poisonous carbon monoxide and perhaps other toxic vapors.

Avoid contamination with alkalies.

**** 7. SECTION 313 SUPPLIER NOTIFICATION ****

This product contains the following toxic chemicals subject to the reporting requirements of section 313 of the Emergency Planning and Community Right-To-Know Act of 1986 and of 40 CFR 372:

CAS #	CHEMICAL NAME	% BY WEIGHT
1330-20-7	(1) XYLENE	12.6
68186-91-4	COPPER CHROMITE BLK SPIN	15.1
7727-43-7	BARIUM SULFATE	11.6
64742-95-6	(3)HIGH F. NAPHTHA	1.4
64742-94-5	SOLVESSO 150	1.4
107-98-2	GLYCOL ETHER P.M. (1)	1.5
90438-79-2	OXO-HEPTYL ACETATE	6.5
112-34-5	(1)GLYCOL ETHER DB	2.0
111-76-2	BUTYL CELLOSOLVE	2.0

This information must be included in all MSDSs that are copied and distributed for this material.

**** 8. FIRST AID AND EMERGENCY PROCEDURES ****

INHALATION: Remove to fresh air immeadiately. If breathing has stopped, give artificial respiration. Keep warm and quiet. Get medical attention immeadiately.

EYE Flush with large amounts of water, lifting upper and lower lids occasionally. Continue for at least 15 minutes. Get medical attention.

SKIN: Throughly wash exposed area with soap and water. Remove contaminated clothing. Launder contaminated clothing before re-use.

SWALLOWED: Do NOT induce vomiting, Keep person warm, quiet, and get medical attention. Aspiration of material into the lungs due to vomiting can cause chemical pneumonitis which can be fatal.

**** 9. SPECIAL PROTECTION INFORMATION ****

RESPIRATORY PROTECTION: Use self contained breathing apparatus where concentrations may be above TLV limits. Below TLV limits, use a NIOSH approved vapor respirator.

VENTILATION: Local exhaust must be sufficient to keep airborne vapor concentration below the TLV limit.

PROTECTIVE GLOVES: Chemical resistant gloves.

EYE PROTECTION: Safety glasses with side shields.

OTHER PROTECTIVE EQUIPMENT: Eye bath and safety shower. To prevent repeated or prolonged skin contact, wear impervious clothing and boots.

Control Option #1 - Regenerative Thermal Oxidation

Capital Cost

30,000 SCFM regenerative thermal oxidation unit, 95% recovery sized per Equation 3.28, OAQPS Control Cost Manual, 4th Ed.	$612,000
Instrumentation, taxes, and freight @ 18%	110,000
Purchased Equipment Cost (PEC)	722,000
Installation direct costs @ 30% PEC	217,000
Installation indirect costs @ 31% PEC	224,000
Total Capital Cost (TCC)	$1,163,000

Annual Cost

1. Labor	
a. operator (1/2 hr/shft, 500 shft/yr @ $12.00/hr)	$3,000
b. supervisor @ 15% 1a	500
2. Maintenance	
a. labor (1/2 hr/shft, 500 shft/yr @ $14.00/hr)	3,500
b. materials @ 100% 2a	3,500
3. Utilities, per OAQPS Manual	
a. electricity - 175.5 kW, 4,000 hr/yr @ $0.065/kWh	45,600
b. natural gas - 2.7 MCF/hr, 4,000 hr/yr @ $4.00/MCF	43,200
4. Overhead @ 60% (1a+1b+2a)	4,200
5. Administration, property taxes, and insurance @ 4% TCC	46,500
6. Capital recovery @ 10 yr. and 10% (0.1628)	189,000
Total Annual Cost	$339,000
VOC reduction (145,000 lb. generated @ 98% removal)	142,100
Annual cost per pound of VOC removed	$2.39

Control Option #2 - Regenerative Thermal Oxidation With Recirculating Air

Capital Cost

Single 10,000 SCFM regenerative thermal oxidation unit, 95% recovery sized per Equation 3.28, OAQPS Control Cost Manual, 4th Ed.	$362,000
Additional ductwork for recirculating 67% of spray booth air	80,000
Instrumentation, taxes, and freight @ 18%	65,000
Purchased Equipment Cost (PEC)	507,000
Installation direct costs @ 30% PEC	152,000
Installation indirect costs @ 31% PEC	157,000
Total Capital Cost (TCC)	$816,000

Annual Cost

1. Labor	
a. operator (1/2 hr/shft, 500 shft/yr @ $12.00/hr)	$3,000
b. supervisor @ 15% 1a	500
2. Maintenance	
a. labor (1/2 hr/shft, 500 shft/yr @ $14.00/hr)	3,500
b. materials @ 100% 2a	3,500
3. Utilities, per OAQPS Manual	
a. electricity - 58.5 kW, 4,000 hr/yr @ $0.065/kWh	15,200
b. natural gas - 0.9 MCF/hr, 4,000 hr/yr @ $4.00/MCF	14,400
4. Overhead @ 60% (1a+1b+2a)	4,200
5. Administration, property taxes, and insurance @ 4% TCC	32,600
6. Capital recovery @ 10 yr. and 10% (0.1628)	133,000
Total Annual Cost	$210,000
VOC reduction (145,000 lb. generated @ 98% removal)	142,100
Annual cost per pound of VOC removed	$1.48

Control Option #3 - Recuperative Thermal Oxidation With Recirculating Air

Capital Cost

10,000 SCFM recuperative thermal oxidation unit, 70% recovery sized per Equation 3.27, OAQPS Control Cost Manual, 4th Ed.	$230,000
Additional ductwork for recirculating 67% of spray booth air	80,000
Instrumentation, taxes, and freight @ 18%	41,000
Purchased Equipment Cost (PEC)	351,000
Installation direct costs @ 30% PEC	105,000
Installation indirect costs @ 31% PEC	109,000
Total Capital Cost (TCC)	$565,000

Annual Cost

1. Labor	
a. operator (1/2 hr/shft, 500 shft/yr @ $12.00/hr)	$3,000
b. supervisor @ 15% 1a	500
2. Maintenance	
a. labor (1/2 hr/shft, 500 shft/yr @ $14.00/hr)	3,500
b. materials @ 100% 2a	3,500
3. Utilities, per OAQPS Manual	
a. electricity - 37.05 kW, 4,000 hr/yr @ $0.065/kWh	9,600
b. natural gas - 9 MCF/hr, 4,000 hr/yr @ $4.00/MCF	144,000
4. Overhead @ 60% (1a+1b+2a)	4,200
5. Administration, property taxes, and insurance @ 4% TCC	22,600
6. Capital recovery @ 10 yr. and 10% (0.1628)	92,000
Total Annual Cost	$283,000
VOC reduction (145,000 lb. generated @ 98% removal)	142,100
Annual cost per pound of VOC removed	$1.99

FILE

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

We make Indiana a cleaner, healthier place to live

Evan Bayh
Governor
Kathy Prosser
Commissioner

100 North Senate Avenue
P.O. Box 6015
Indianapolis, Indiana 46206-6015
Telephone 317-232-8603
Environmental Helpline 1-800-451-6027

March 24, 1994

Certified Mail P 255 205 758

Arvin North American Automotive
1001 N. Hurricane
Franklin, IN 46131

Attention: Douglas Logan

Re: Registered Construction and Operation Status
CP 081-3484, Plt ID 081-00020

Ladies and Gentlemen:

The Arvin North American Automotive application has been reviewed. Based on the data submitted and the provisions in Sections 1 and 2 of 326 IAC 2-1, it has been determined that the following, to be located at 1001 N. Hurricane in Franklin, Indiana is classified as registered: one automotive pipe and muffler metal preparation and surface coating operation including:

a) one (1) parts washing process using an alkaline solution heated and dried by three (3) natural gas-fired heaters with a total capacity of 3.8 MMBtu/hr,

b) one (1) surface coating spray booth, with coatings applied by electrostatic spray application, and

c) one (1) natural gas-fired curing oven with a capacity of 6.4 MMBtu/hr, used to dry the parts from the washing process and cure the coated mufflers.

The maximum capacity of this process is determined to be 111 mufflers per hour.

Pursuant to 326 IAC 8-2-9(d)(4), the VOC content of the extreme performance coating shall not exceed 3.5 pounds per gallon coating excluding water, as delivered to the applicator.

The particulate matter overspray from the surface coating operation shall be considered in compliance with 326 IAC 6 provided that the overspray is not:

a) visibly detectable at the exhaust,

b) accumulated on the roof tops or on the ground, or

c) causing any nuisance problems.

Any change or modification which may increase the potential emissions to more than 25 tons per year of volatile organic compounds from the equipment covered in this letter must be approved by the Office of Air Management before such change may occur.

Sincerely,

Paul Dubenetzky

Paul Dubenetzky, Chief
Air Programs Branch
Office of Air Management

SDF

cc: Johnson County Health Department
Air Compliance Section
Compliance Branch - Tracking
Data Support Section

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

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Kathy Prosser
Commissioner

100 North Senate Avenue
P.O. Box 6015
Indianapolis, Indiana 46206-6015
Telephone 317-232-8603
Environmental Helpline 1-800-451-6027

January 24, 1994

VIA CERTIFIED MAIL# P 335 078 357

Douglas A. Logan
Director Environmental Affairs & Safety
Arvin Industries, Inc. - Franklin Plant
1001 North Hurricane
Franklin, Indiana 46131

Re: Construction Permit

Dear Mr. Logan:

On the Construction Permit application your company recently submitted to the Office of Air Management, it was indicated that you estimated that construction would begin in January 1994. The evaluation of your application has not been completed, so to begin construction before the permit is issued would be in violation of 326 IAC 2-1-3. Until a Construction Permit or Registration is issued, construction should not begin, and any construction in progress should be halted. Violation of this rule can result in civil penalties of up to $25,000 per day.

If you have any questions regarding enforcement actions, call David Hughes at the Office of Enforcement at 317-232-4863. For questions about your permit #CP 081-3484, call Joanne Smiddie-Brush at the Engineering Section of the Office of Air Management at 317-232-8369.

Sincerely,

David F. Valinetz, Section Chief
Air Section
Office of Enforcement

cc: David Hughes, OE
Joanne Smiddie-Brush, OAM
Ray Schick, Inspector, OAM
Johnson County Health Department

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AA

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

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Kathy Prosser
Commissioner

105 South Meridian Street
P.O. Box 6015
Indianapolis, Indiana 46206-6015
Telephone 317-232-8603
Environmental Helpline 1-800-451-6027

November 6, 1992

Certified Mail P 255 206 848

Arvin North American Automotive
1531 13th Street
Columbus, IN 47201

Attention: Douglas A. Logan

Re: Registered Construction
and Operation Status
CP 081-2328
ID 081-00020

Ladies and Gentlemen:

The Arvin North American Automotive application has been reviewed. Based on the data submitted and the provisions in Sections 1 and 2 of 326 IAC 2-1, it has been determined that the following, to be located at 1001 Hurricane Street in Franklin, Indiana is classified as registered:

a. two (2) natural gas fired Kewanee boilers each with a capacity of 3.6 MM Btu/hour,

b. two (2) natural gas fired Cliff boilers each with a capacity of 3.6 MM Btu/hour,

c. a natural gas fired Cleaverbrooks boiler with a capacity of 11.7 MM Btu/hour,

d. a natural gas fired Johnston boiler with a capacity of 2.7 MM Btu/hour,

e. a natural gas fired heater with a capacity of 0.8 MM Btu/hour for washing parts,

f. a natural gas fired bake oven with a capacity of 1.2 MM Btu/hour,

g. two (2) Binks paint booths with dry filters to control particulate matter,

h. a horizontal, 300 gallon capacity diesel fuel storage tank,

i. two (2) horizontal, 300 gallon capacity regular gasoline storage tanks,

j. a horizontal, 300 gallon capacity unleaded gasoline storage tank, and

k. a fixed roof, 58,753 gallon capacity No. 2 fuel oil storage tank.

Pursuant to 40 CFR 60.116b, the owner or operator of the 58,753 gallon storage vessel shall keep readily accessible records showing the dimensions of the storage vessels and an analysis showing the capacity of the storage vessel. These records shall be kept for the life of the source. The owner or operator of each storage vessel with a design capacity greater than or equal to 151 cubic meters storing a liquid with a maximum true vapor pressure that is normally less than 0.745 psia (5.2 kPa) shall notify the Administrator within 30 days when the maximum true vapor pressure of the liquid exceeds 0.745 psia (5.2 kPa).

Miscellaneous Metal Coating Operations, rule 326 IAC 8-2-9(d)(2), applies because the spray booths emit more than 15 lbs/day of Volatile Organic Compound (VOC) Emissions, therefore the company cannot discharge into the atmosphere volatile organic compounds in excess of 3.5 lbs of VOC/ gallon of coating excluding water. Records of the coating VOC content shall be maintained for 24 months and made available upon request to the office of Air Management.

Any change or modification which may increase the potential emissions to more than 25 tons per year of Volatile Organic Compound Emissions from the equipment covered in this letter must be approved by the Office of Air Management before such change may occur.

Sincerely,

Paul Dubenetzky

Paul Dubenetzky, Chief
Air Programs Branch
Office of Air Management

PAS

cc: Johnson County Health Department
Air Compliance Section
Enforcement Section - DD
Data Support Section

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

RECEIPT

ARVIN NORTH AMERICAN AUTOMOTIVE
1531 13th Street, Columbus, Indiana 47201 · 812 379-3000

BANK ONE
BANK ONE, INDIANAPOLIS, NA
Parkway Office Office

No. 52620

DATE 10/21/92

71-996
749

PAY EXACTLY *******300 DOLLARS 00 CENTS

PAY EXACTLY $300.00

VOID AFTER 90 DAYS.

TO THE ORDER OF

INDIANA DEPARTMENT OF
ENVIROMENTAL MANAGEMENT
ATTN P O BOX 7060
105 SO MERIDIAN, ROOM 140
INDIANAPOLIS, IN 46206

James K Parker
Richard A. Dix

⑈526203⑈ ⑆074909962⑆ 41 001370⑈

RECEIPT NO. 014188

ACCOUNT NUMBER 324-400

PROGRAM 111

AMOUNT $ 300 00 CASH ☐ RECEIVED FROM

DATE 10-27-92 REPRESENT

CASHIER CB

COMMENT

RECEIVED
State of Indiana
Department of Environmental Management
Office of Air Management

Arvin North American Automotive
CP# 081-2328
Registration
1/6/92

FORM APPROVED BY STATE BOARD OF ACCOUNTS, 1992.

FAXED 10:30 AM

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

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Evan Bayh
Governor
Kathy Prosser
Commissioner

105 South Meridian Street
P.O. Box 6015
Indianapolis, Indiana 46206-6015
Telephone 317-232-8603
Environmental Helpline 1-800-451-6027

October 14, 1992

Mr. Doug Logan
Arvin North American Automotive
1531 13th Street
Columbus, IN 47102

PERMIT NO. 081-00020

Re: Bill for Spray Booths, Storage Tanks, and Boilers

Dear Mr. Logan:

This will acknowledge receipt of your application for a permit to construct the facilities you indicated. The staff has reviewed the application and information submitted and finds that it is substantially complete. However, further reviewing might indicate that additional details are necessary.

Before the review can be completed, it will be necessary for you to submit the fee prescribed by 326 2-1-7.1. According to our preliminary review, the total fee will be $300.00. This is based on:

RECEIVED
NOV 02 1992
State of Indiana
Department of Environmental Management
Office of Air Management

$100 for Filing Fee
$200 for Registration Review

Please remit a copy of this bill along with a check for the total fee above, payable to the Department of Environmental Management, to:

Cashier
Department of Environmental Management
Office of Air Management
105 South Meridian Street
P.O. Box 7060
Indianapolis, IN 46206-7060

RECEIVED
OCT 26 1992
CASHIER/PAYROLL

Also, please write "Air Construction Permit" on your check.

Any questions or additional information should be directed to the Office of Air management at the above address. Payment will help avoid a delay in your permit. Construction can not commence until a permit is issued. This document is not a permit.

Sincerely,

Terrence K. Hoya

Terrence K. Hoya, Chief
Engineering Section
Office of Air Management

TKH/pjm

ARVIN NORTH AMERICAN AUTOMOTIVE

1531 13th Street, Columbus, Indiana 47201 812 379-3000

No. 526203

DATE 12/21/92

OD-1075A

INVOICE/CONTRACT	INVOICE DATE	DESCRIPTION	VOUCHER NO.	GROSS AMOUNT	DISCOUNT AMT.	NET AMOUNT
27103	12/3/92	A&A CONSTRUCTION [illegible]	122471	5,[illegible]	[illegible]	5,[illegible]
			TOTALS ⇨	30,000	00	30,000

DETACH AND RETAIN THIS STUB
THE ATTACHED CHECK IS IN PAYMENT OF ITEMS DESCRIBED ABOVE. IF NOT CORRECT, PLEASE NOTIFY US PROMPTLY. NO RECEIPT REQUIRED.

ARVIN
NORTH AMERICAN AUTOMOTIVE
1531 13th Street, Columbus, Indiana 47201

Franklin Plant
1001 North Hurricane Ave.
Franklin, Indiana 46131

Cashier
Department of Environmental Management
Office of Air Management
105 South Meridian Street
P.O. Box 7060
Indianapolis, IN 46206-7060

FAXED 10:30 AM

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

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Governor
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Commissioner

105 South Meridian Street
P.O. Box 6015
Indianapolis, Indiana 46206-6015
Telephone 317-232-8603
Environmental Helpline 1-800-451-6027

October 14, 1992

Mr. Doug Logan
Arvin North American Automotive
1531 13th Street
Columbus, IN 47102

PERMIT NO. 081-00020

Re: Bill for Spray Booths, Storage Tanks, and Boilers

Dear Mr. Logan:

This will acknowledge receipt of your application for a permit to construct the facilities you indicated. The staff has reviewed the application and information submitted and finds that it is substantially complete. However, further reviewing might indicate that additional details are necessary.

Before the review can be completed, it will be necessary for you to submit the fee prescribed by 326 2-1-7.1. According to our preliminary review, the total fee will be $300.00. This is based on:

$100 for Filing Fee
$200 for Registration Review

Please remit a copy of this bill along with a check for the total fee above, payable to the Department of Environmental Management, to:

Cashier
Department of Environmental Management
Office of Air Management
105 South Meridian Street
P.O. Box 7060
Indianapolis, IN 46206-7060

Also, please write "Air Construction Permit" on your check.

Any questions or additional information should be directed to the Office of Air management at the above address. Payment will help avoid a delay in your permit. Construction can not commence until a permit is issued. This document is not a permit.

Sincerely,

Terrence K. Hoya

Terrence K. Hoya, Chief
Engineering Section
Office of Air Management

TKH/pjm

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10/14/92
10:30 AM

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
Office of Air Management
105 South Meridian Street
P. O. Box 6015
Indianapolis, Indiana 46206-6015

TO: Doug Logan

COMPANY: Arvin No American Auto

TELEFAX #: 812 379 3227

DIVISION:

TELEPHONE #:

FROM: Patricia McBroom

OFFICE AND SECTION: IDEM - OAM

TELEPHONE #: 317 - 232 - 8384

NUMBER OF PAGES (INCLUDING COVER PAGE): 2

NUMBER TO CONFIRM TELEFAX: 317-232-5586

TELEFAX NUMBER: 317-233-3257

Billing and Refund Instructions

Form 2

Engineer : PAS
Plant ID # : 081-00020
CP Number : 081-2328

___ Mail
X Fax
Fax Number 812-379-3227

Secr. Instructions:
- ____ type bill letter (Remember to type the CP Number on the bill letter) and make 2 copies.
  - ____ one copy for CP file
  - ____ one copy for PJM mailout folder
- ____ mail/fax bill letter to company as instructed above
- ____ enter CP number, billing date, and amount on CPT form

Company Name [redacted] Arvin North American Automotive
Mailing Address 1531 13th Street
City, State - Zip Columbus, IN 47201
Attention Doug Logan
Phone Number 812 379-3575
Facility Description Spray Booths, Storage Tanks, & Boilers
Date Application Received 12/16/91

✓ $100 for filing fee (for exemptions and registrations only)
✓ $200 for registration review
____ $3,000 for construction permit review (credit for filing fee)
____ $5,000 for PSD permit review (credit for filing fee)
air quality impact study review
____ $3,000 if applicant does analysis, or
____ times $5,000 per pollutant if OAM does analysis equals $_____
PSD BACT or LAER review
____ $2,500 for 2 to 5 review analyses, or
____ $5,000 for 6 to 10 review analyses, or
____ $10,000 for 11 or more review analyses
____ $400 for a public hearing
____ times $200 for each NSPS review equals $_____
____ times $200 for each NESHAP review equals $_____
____ times $500 for each 326 IAC 8-1-6 BACT review equals $_____

Total of $ 300

Minus $ 0 credit for filing fee & minus $_____ other credit = $_____ total credit

Total due $ 300 Date bill mailed _____

Refunds

1. Determine the amount of refund is required (Total Received - Total Due)
2. Determine the reason why a refund is required
3. Make a copy of the receipts for the CP File.
4. Attach the receipts to this sheet.

Total Refund $_____ Date refund mailed _____

Reason for Refund: _____

REVISED 2/5/92

Emission Calculations

Company Name Arvin North American Automotive

Plant Location 1001 Hurricane Str., Franklin, IN

County Johnson

Date application received 12/16/91

Permit Reviewer PAS

Prepared by PAS

date 10/6/92

Reviewed by PAPoole

date 10/8/92

No. 2 Fuel Oil

Breathing Loss

Lb = (2.26*10^-2) * Mv * (P/Pa-P)^0.68 * D^1.73 * H^0.51 * ΔT^0.50 * Fp * C * Kc

Lb = 55.27 lb/year

Lb = 0.028 ton/year

where

Lb = fixed roof breathing loss (lb/yr)	
Mv = molecular weight of vapor in storage tank (lb/lb mole)	130
Pa = average atmospheric pressure at tank location (psia)	14.7
P = true vapor pressure at bulk liquid conditions (psia)	0.009
D = tank diameter (ft)	20
H = average vapor space height, including roof volume correction (ft)	12.5
ΔT = average ambient diurnal temperature change (°F)	15
Fp = paint factor	1
C = adjustment factor for small diameter tanks	1
Kc = product factor	1

Working Loss

Lw = (2.40*10^-5) * Mv * P * V * N * Kn * Kc

Lw = 1.26 lbs/year

0.001 tons/year

where

Lw = fixed roof working loss (lb/year)	
Mv = molecular weight of vapor in storage tank (lb/lb mole)	130
P = true vapor pressure at bulk liquid temperature (psia)	0.009
V = tank capacity (gallons)	58753
N = number of turnovers per year	0.763

$$N = \frac{\text{Total throughput per year (gal)}}{\text{Tank capacity, V (gal)}} \qquad \frac{44800}{58753}$$

Kn = turnover factor	1
Kc = product factor	1

Diesel Fuel

Breathing Loss

Lb = (2.26*10^-2) * Mv * (P/Pa-P)^0.68 * D^1.73 * H^0.51 * ΔT^0.50 * Fp * C * Kc

Lb = 19.24 lb/year

Lb = 0.010 ton/year

where

Lb = fixed roof breathing loss (lb/yr)	
Mv = molecular weight of vapor in storage tank (lb/lb mole)	114
Pa = average atmospheric pressure at tank location (psia)	14.7
P = true vapor pressure at bulk liquid conditions (psia)	0.551
D = tank diameter (ft)	4.53
H = average vapor space height, including roof volume correction (ft)	1.24
ΔT = average ambient diurnal temperature change (°F)	15
Fp = paint factor	1
C = adjustment factor for small diameter tanks	1
Kc = product factor	1

Working Loss

Lw = (2.40*10^-5) * Mv * P * V * N * Kn * Kc

Lw = 9.65 lbs/year

0.005 tons/year

where

Lw = fixed roof working loss (lb/year)	
Mv = molecular weight of vapor in storage tank (lb/lb mole)	114
P = true vapor pressure at bulk liquid temperature (psia)	0.551
V = tank capacity (gallons)	300
N = number of turnovers per year	21.333

$$N = \frac{\text{Total throughput per year (gal)}}{\text{Tank capacity, V (gal)}} \qquad \frac{6400}{300}$$

Kn = turnover factor	1
Kc = product factor	1

Regular Gasoline

Breathing Loss

Lb = (2.26*10^-2) * Mv * (P/Pa-P)^0.68 * D^1.73 * H^0.51 * ΔT^0.50 * Fp * C * Kc

Lb = 209 lb/year

Lb = 0.104 ton/year

where

Lb = fixed roof breathing loss (lb/yr)	
Mv = molecular weight of vapor in storage tank (lb/lb mole)	114
Pa = average atmospheric pressure at tank location (psia)	14.7
P = true vapor pressure at bulk liquid conditions (psia)	8.3
D = tank diameter (ft)	4.53
H = average vapor space height, including roof volume correction (ft)	1.24
ΔT = average ambient diurnal temperature change (°F)	15
Fp = paint factor	1
C = adjustment factor for small diameter tanks	1
Kc = product factor	1

Working Loss

Lw = (2.40*10^-5) * Mv * P * V * N * Kn * Kc

Lw = 164 lbs/year

0.082 tons/year

where

Lw = fixed roof working loss (lb/year)	
Mv = molecular weight of vapor in storage tank (lb/lb mole)	114
P = true vapor pressure at bulk liquid temperature (psia)	8.3
V = tank capacity (gallons)	300
N = number of turnovers per year	24.000

$$N = \frac{\text{Total throughput per year (gal)}}{\text{Tank capacity, V (gal)}} \qquad \frac{7200}{300}$$

Kn = turnover factor	1
Kc = product factor	1

Regular Gasoline

Breathing Loss

Lb = (2.26*10^-2) * Mv * (P/Pa-P)^0.68 * D^1.73 * H^0.51 * ΔT^0.50 * Fp * C * Kc

Lb = 209 lb/year

Lb = 0.104 ton/year

where

Lb = fixed roof breathing loss (lb/yr)	
Mv = molecular weight of vapor in storage tank (lb/lb mole)	114
Pa = average atmospheric pressure at tank location (psia)	14.7
P = true vapor pressure at bulk liquid conditions (psia)	8.3
D = tank diameter (ft)	4.53
H = average vapor space height, including roof volume correction (ft)	1.24
ΔT = average ambient diurnal temperature change (°F)	15
Fp = paint factor	1
C = adjustment factor for small diameter tanks	1
Kc = product factor	1

Working Loss

Lw = (2.40*10^-5) * Mv * P * V * N * Kn * Kc

Lw = 164 lbs/year

0.082 tons/year

where

Lw = fixed roof working loss (lb/year)	
Mv = molecular weight of vapor in storage tank (lb/lb mole)	114
P = true vapor pressure at bulk liquid temperature (psia)	8.3
V = tank capacity (gallons)	300
N = number of turnovers per year	24.000

$$N = \frac{\text{Total throughput per year (gal)}}{\text{Tank capacity, V (gal)}} \qquad \frac{7200}{300}$$

Kn = turnover factor	1
Kc = product factor	1

Unleaded Gasoline

Breathing Loss

Lb = (2.26*10^-2) * Mv * (P/Pa-P)^0.68 * D^1.73 * H^0.51 * ΔT^0.50 * Fp * C * Kc

Lb = 234 lb/year

Lb = 0.117 ton/year

where

Lb = fixed roof breathing loss (lb/yr)	
Mv = molecular weight of vapor in storage tank (lb/lb mole)	114
Pa = average atmospheric pressure at tank location (psia)	14.7
P = true vapor pressure at bulk liquid conditions (psia)	8.9
D = tank diameter (ft)	4.53
H = average vapor space height, including roof volume correction (ft)	1.24
ΔT = average ambient diurnal temperature change (°F)	15
Fp = paint factor	1
C = adjustment factor for small diameter tanks	1
Kc = product factor	1

Working Loss

Lw = (2.40*10^-5) * Mv * P * V * N * Kn * Kc

Lw = 42.6 lbs/year

0.021 tons/year

where

Lw = fixed roof working loss (lb/year)	
Mv = molecular weight of vapor in storage tank (lb/lb mole)	114
P = true vapor pressure at bulk liquid temperature (psia)	8.9
V = tank capacity (gallons)	300
N = number of turnovers per year	5.833

$$N = \frac{\text{Total throughput per year (gal)}}{\text{Tank capacity, V (gal)}} \qquad \frac{1750}{300}$$

Kn = turnover factor	1
Kc = product factor	1

Total Volatile Organic Compound Emissions from all storage tanks:

Total Emissions = Breathing Loss + Working Loss

Total Emissions = 0.553 tons/year

Material	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
Wabash KB-2618	5.41	60.0%	0.0%	60.0%	0.0%	25.0%	0.00220	244	3.25	3.25	1.74	41.86	7.64
Wabash KB-318	4.29	38.0%	0.0%	38.0%	0.0%	40.0%	0.01090	42	1.63	1.63	0.75	18.12	3.31
Totals											**2.50**	**59.98**	**10.95**

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 (unit/hr)

Potential VOC Pounds per Day = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (unit/hr) * (24 hrs / 1 day)

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

Pounds VOC per Gallon of Solids = (lbs/gal) * (weight % organics) / (Volume % solids)

Natural Gas Fired Equipment

Capacity = 30.8 MM Btu/hr
Higher Heating Value = 1000 Btu/Cubic Feet
Natural Gas Usage = Capacity / Higher Heating Value
Natural Gas Usage = 0.0308 MM Cubic Feet/hour

Pollutant	Emission Factors (lb / MM Cubic feet burned) SCC 1-02-006-02	Natural Gas Usage (MM Cubic feet per hour)	Pounds per hour	Tons per year
Particulate	3	0.0308	0.092	0.405
PM 10	3	0.0308	0.092	0.405
SOx	0.6	0.0308	0.018	0.081
NOx	140	0.0308	4.312	18.887
VOC	2.8	0.0308	0.086	0.378
CO	35	0.0308	1.078	4.722

Pounds per hour = Emission Factor * Natural Gas Usage
Tons per year = Pounds per hour * 8760 hours/1 year * 1 ton/2000 lbs

Total Emissions from Arvin Automotive:
Total Emissions = Storage Tank Emissions + Spray Booth Emissions + Natural Gas Emissions

Particulate	0.405 tons/year
PM 10	0.405 tons/year
SOx	0.081 tons/year
NOx	18.88 tons/year
VOC	11.88 tons/year
CO	4.72 tons/year

Potential Emissions based on 8760 hours, before controls are less than 25 tons per year, therefore a registration is required pursuant to 326 IAC 2-1.

Petroleum Liquid Storage Facilities, rule 326 IAC 8-4-3, does not apply because the tank that exceeds 39,000 gallons, contains a volatile organic compound whose true vapor pressure is less than 1.52 psi.

Miscellaneous Metal Coating Operations, rule 326 IAC 8-2-9(d)(3), applies because the spray booths emit more than 15 lbs/day of Volatile Organic Compound (VOC) Emissions, therefore the company cannot discharge into the atmosphere volatile organic compounds in excess of 3.5 lbs of VOC/gallon of coating excluding water. This particular limit of 3.5 lbs/gallon of coating applies because the coating is considered extreme performance, that is the metal parts to be coated will be subject to temperatures above 95° Celcius.

The New Source Performance Standard, Subpart Kb, for Volatile Organic Liquid Storage Vessels applies to the No. 2 Fuel Oil Storage Tank. The capacity of the tank in cubic meters is greater than 151 and the true vapor pressure of the fuel oil is less than 3.5 kiloPascals, therefore records of capacity and dimension must be kept. The owner or operator of each storage vessel with a design capacity greater than or equal to 151 cubic meters storing a liquid with a maximum true vapor pressure that is normally less than 0.745 psia (5.2 kPa) shall notifiy the Administrator within 30 days if the maximum true vapor pressure of the liquid exceeds 0.745 psia (5.2 kPa).

Minor Source Screening Form

Company Name: Arvin North American Automotive

Location: Franklin, IN

Maximum Permitted Emissions (g/sec)

Stack	PM10	PM	SO2	NOx	Pb	Air Toxics: Toluene	Air Toxics: Xylene	Air Toxics:
1						0.346	0.350	
3								
Demin	0.432	0.719	1.151	1.151	0.017	0.401	0.464	

Parameters for each stack (at full capacity)

Stack (No.)	Rate (g/s)	Hs (m)	IDs (m)	Vs (m/s)	Ts (°K)	Hb (m)	Wb (m)	Lb (m)	Dist (m)

Ambient Temp = 293 (°K)
Urban/Rural = 2
Complex Terrain = N
Meteorology = 1

Receptor Height = 0 (meters)
Downwash = Y
Simple Terrain = N

Results (ug/m^3)

Plnt	PM10	PM	SO2	NOx	Pb		Air Toxics	
C-max								
C-pl								
C-3hr								
C-8hr								
C-24hr								
C-ann								
AAC								

Further review necessary? NO

revised 11/15/89

ARVIN
NORTH AMERICAN
AUTOMOTIVE

RECEIVED
JUL 30 1992
State of Indiana
Department of Environmental Management
Office of Air Management

July 28, 1992

BY CERTIFIED MAIL

Ms. Pamela Stamper
Construction Permit Section
Office of Air Management
Indiana Department of Environmental Management
105 South Meridian Street
Indianapolis, Indiana 46206-6015

Subject: Permit Application
Arvin North American Automotive
Franklin, Indiana
Permit No. 081-2328
Plt. ID No. 081-00020

Dear Ms. Stamper::

In November 1991, customer requirements for the product lines coated in the subject paint system were changed. Unfortunately, this information was not provided to me, and was not represented in the permit application submitted on December 16, 1991 or the supplemental information provided at Mr. Carey's request on May 21, 1992. The effect of the changes has been to reduce our projected consumption of the KB-2618 (aluminum) paint be about 34% and to increase the consumption of KB-318 (black) by roughly 10%. A more complete discussion of the changes is shown on the attached pages.

The revised customer requirements change the potential emission of the installation from 27.8 tons/year (t/yr) to 21.7 t/yr. This installation is therefore no longer subject to the regulations concerning construction (326 IAC 2-1-3) or operating (326 IAC 2-1-4) permits. Instead, registration under the provisions of 326 IAC 2-1-2 is necessary.

In accordance with 326 IAC 8-2-1(a)(2), this installation should not be subject to the surface coating emission limitations of 326 IAC 8-2-9. In this case, the matter of VOC content, expressed in pounds of VOC per gallon of coating, is immaterial. Nevertheless, Arvin will continue to consider alternate coatings that will reduce VOC emission.

1531 13th Street, Box Number 3002, Columbus, Indiana 47202 Phone: 812/379-3000 a division of Arvin Industries, Inc.

With respect to the second matter discussed in your letter of July 14, 1992, it is intended to use the existing spray booths for equipment maintenance rather than production. The emissions information provided with my letter of May 21, 1992 regarding the KA-2111-BT black silicone enamel is no longer applicable. More detailed information about the volume and types of coating to be used in the maintenance painting will be provided in another letter.

Please accept my apology for the confusion that this matter has caused.

Sincerely,

Douglas A. Logan, P.E.
Director of Environmental Affairs

enclosures

Coating Composition

Product	Wabash KB-2618	Wabash KB-318
Type	high heat aluminum silicone enamel	high heat black silicone enamel
Curing	air dry	oven baked
Coating density (lb coating/gal coating)	9.01	11.29
Volume percent solids (gal solids/gal coating)	25%	42%
Weight percent solids (lb solids/lb coating)	40%	62%
Solids density (lb solids/gal solids)	14.4	16.7
VOC density (lb VOC/gal VOC)	7.21	7.40
VOC content (lb VOC/gal coating)	5.41	4.29

See attached MSDS's and product information

Emission Estimate

	Wabash KB-2618		Wabash KB-318
Number of units coated	977,040		169,920
Volume of coating per unit (gal)	0.0022		0.0109
Mass of coating per unit (lb)	0.0201		0.1227
Percent VOC by weight (lb VOC/lb coating)	60%		38%
Annual VOC emissions (lb/yr)	11,789		7,924
Total annual VOC emissions (lb/yr)		19,713	
Potential emissions (lb/yr)		43,171	
(t/yr)		21.6	

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

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Evan Bayh
Governor
Kathy Prosser
Commissioner

105 South Meridian Street
P.O. Box 6015
Indianapolis, Indiana 46206-6015
Telephone 317-232-8603
Environmental Helpline 1-800-451-6027

July 14, 1992

CERTIFIED MAIL P 749 696 860

OFFICE OF AIR MANAGEMENT

Arvin North American Automotive
1531 13th Street
Columbus, Indiana 47201

Attention: Douglas A. Logan

Re: Permit Application for 5 new assembly lines with 2 associated paint booths
Permit No. 081-2328,
Plt ID No. 081-00020

Ladies and Gentlemen:

Your application for 5 new assembly lines with 2 associated paint booths to be located at 1001 Hurricane Street in Franklin, Indiana was received on December 16, 1991. Sufficient data is not contained to act on this application. A preliminary review indicates the need for the following.

1. Coatings KB2618 and KB318 are not in compliance with rule 326 IAC 8-2-9 (Miscellaneous Metal Coating Operations, copy enclosed). 326 IAC 8-2-9 requires that the coatings not exceed 3.5 lbs/gallon coating excluding water. Currently the coatings are 5.41 lbs/gallon and 4.29 lbs/gallon excluding water respectively (calculations enclosed). Please respond on how you intend to comply with this rule. I am enclosing a copy of rule 326 IAC 8-1-2 which will further explain compliance methods.

2. Please respond on what you intend to do with the existing spray booths.

Please contact me if you have any questions concerning this letter at the above address or via phone 317/233-3031. Please attach a copy of my letter to your response. Further review on this application can not be done until a response is received. Further questions may arise as the review proceeds.

Sincerely,

Pamela Stamper

Pamela Stamper, Engineer
Construction Permit Section
Office of Air Management

PAS
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Telephone 317-232-8603
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July 14, 1992

CERTIFIED MAIL P 749 696 860

OFFICE OF AIR MANAGEMENT

Arvin North American Automotive
1531 13th Street
Columbus, Indiana 47201

Attention: Douglas A. Logan

Re: Permit Application for 5 new assembly lines with 2 associated paint booths
Permit No. 081-2328,
Plt ID No. 081-00020

Ladies and Gentlemen:

Your application for 5 new assembly lines with 2 associated paint booths to be located at 1001 Hurricane Street in Franklin, Indiana was received on December 16, 1991. Sufficient data is not contained to act on this application. A preliminary review indicates the need for the following.

1. Coatings KB2618 and KB318 are not in compliance with rule 326 IAC 8-2-9 (Miscellaneous Metal Coating Operations, copy enclosed). 326 IAC 8-2-9 requires that the coatings not exceed 3.5 lbs/gallon coating excluding water. Currently the coatings are 5.41 lbs/gallon and 4.29 lbs/gallon excluding water respectively (calculations enclosed). Please respond on how you intend to comply with this rule. I am enclosing a copy of rule 326 IAC 8-1-2 which will further explain compliance methods.

2. Please respond on what you intend to do with the existing spray booths.

Please contact me if you have any questions concerning this letter at the above address or via phone 317/233-3031. Please attach a copy of my letter to your response. Further review on this application can not be done until a response is received. Further questions may arise as the review proceeds.

Sincerely,

Pamela Stamper

Pamela Stamper, Engineer
Construction Permit Section
Office of Air Management

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cP file

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P.O. Box 6015
Indianapolis, Indiana 46206-6015
Telephone 317-232-8603
Environmental Helpline 1-800-451-6027

February 19, 1991

VIA CERTIFIED MAIL P 846 721 463

Arvin North American Automotive
1531 13th Street
Columbus, Indiana 47201

Attention: Douglas A. Logan

Re: Permit application for a
Muffler Surface Coating Operation

Dear Mr. Logan:

Arvin North American Automotive's application for a construction permit was received on 12/16/91. Sufficient data is not contained to act on this application. Preliminary review indicates the need for the following:

1. A complete emissions inventory for the existing source including emissions of: particulate matter, nitrogen oxides, volatile organic compounds, sulfur dioxide, and carbon monoxide in tons per year. This information is required because no permit for the existing facility could be found.

2. An application must be made for the existing facility if it is currently operating without a permit.

This application will be subject to a 30-Day Public Review and Comment Period according to 326 IAC 2-1-3, which will cause a delay in final action on the application.

Please highlight your reply by noting that it is supplemental information to the application dated 12/16/91.

If you have any questions please feel free to contact me at (317) 232-8354.

Sincerely,

Daniel A. Carey, Engineer
Construction Permit Section
Office of Air Management

DAC

ARVIN
NORTH AMERICAN AUTOMOTIVE

RECEIVED
MAY 26 1992
State of Indiana
Department of Environmental Management
Office of Air Management

May 21, 1992

BY CERTIFIED MAIL

Mr. Daniel A. Carey
Construction Permit Section
Office of Air Management
Indiana Department of Environmental Management
105 South Meridian Street
Indianapolis, Indiana 47206-6015

Subject: Supplemental Information For 12/16/91 Application

Dear Mr. Carey:

Information requested in your letter of February 19, 1992 is attached. This includes emission estimates for existing fuel combustion units and a small painting operation at the Arvin plant in Franklin. Estimates for fuel combustion are based on factors published in AP-42 while those for the painting operation are based on actual paint and reducer consumption for calendar 1991.

Please let me know if any additional information is required.

Sincerely,

Douglas A. Logan, P.E.
Director of Environmental Affairs

attachments:
1. FCU emission estimate
2. Painting emission estimate
3. Coating and reducer MSDS's

1531 13th Street, Box Number 3002, Columbus, Indiana 47202 Phone: 812/379-3000 a division of Arvin Industries, Inc.

BOILERS

Mfr.	Kewanee	Cliff	Cliff	Cleaver -Brooks	Johnston
Asset No.	25581	6450	7463	25646	14019
Capacity (MM BTU/hr)	6.57	6.57	6.57	14.6	4.18
AP-42 Emission Factors:					
Natural Gas (lb/MMCF)					
Particulate	5	5	5	5	5
Sulfur dioxide	0.6	0.6	0.6	0.6	0.6
Nitrogen oxides (as dioxide)	100	100	100	140	100
Carbon monoxide	20	20	20	35	20
Total VOC	8	8	8	5.8	8
No. 2 Fuel Oil (lb/1000 gal)					
Particulate	2	2	2	2	2
Sulfur dioxide	71	71	71	71	71
Nitrogen oxides (as dioxide)	20	20	20	20	20
Carbon monoxide	5	5	5	5	5
Total VOC	0.556	0.556	0.556	0.252	0.556
1990 fuel oil consumption (gal/yr)	5600	5600	5600	18200	4200
Fuel oil heating value (BTU/gal)			139600		
Fuel oil MM BTU/yr (est)	782	782	782	2541	586
Fuel oil hours (est)	119	119	119	174	140
Natural gas hours (6 mo/yr est)	4261	4261	4261	4206	4240
Fuel oil potential hours	238	238	238	348	281

Natural gas potential hours	8522	8522	8522	8412	8479	
POTENTIAL EMISSIONS (tons/yr)						TOTAL BOILERS
Particulate	0.151	0.151	0.151	0.343	0.097	0.894
Sulfur dioxide	0.414	0.414	0.414	1.329	0.309	2.881
Nitrogen oxides (as dioxide)	2.911	2.911	2.911	8.961	1.856	19.552
(assuming 95% NO per AP-42)	1.949	1.949	1.949	6.000	1.243	13.091
Carbon monoxide	0.588	0.588	0.588	2.240	0.375	4.379
Total VOC	0.227	0.227	0.227	0.361	0.144	1.186

OTHER FUEL COMBUSTION UNITS

Mfr.	Aerovent	N/S	Reznor	Aerovent	N/S
Type	AMU	AMU	Heater	Heater	Washer
Number of Units	2	1	6	4	2
Capacity (MM BTU/hr)	2.5	5.2	0.3	0.4	0.8
AP-42 Emission Factors:					
Natural Gas (lb/MMCF)					
Particulate	5	5	5	5	5
Sulfur dioxide	0.6	0.6	0.6	0.6	0.6
Nitrogen oxides (as dioxide)	100	100	100	100	100
Carbon monoxide	20	20	20	20	20
Total VOC	8	8	8	8	8

POTENTIAL EMISSIONS (each unit) (tons/yr)						TOTAL OTHER
Particulate	0.055	0.114	0.007	0.009	0.018	0.333
Sulfur dioxide	0.007	0.014	0.001	0.001	0.002	0.040
Nitrogen oxides (as dioxide)	1.095	2.286	0.131	0.175	0.350	6.666
(assuming 95% NO per AP-42)	0.733	1.531	0.088	0.117	0.235	4.464
Carbon monoxide	0.219	0.457	0.026	0.035	0.070	1.333
Total VOC	0.088	0.183	0.011	0.014	0.028	0.533

TOTAL POTENTIAL EMISSIONS (all FCU's) (tons/yr)	
Particulate	1.23
Sulfur dioxide	2.92
Nitrogen oxides (as dioxide)	26.22
(assuming 95% NO per AP-42)	17.55
Carbon monoxide	5.71
Total VOC	1.72

Note: 2nd Kewanee boiler (asset # 25582) out of service, but not dismantled

AMU - air make-up unit

N/S - not specified

Coating Composition

Product	Wabash KA-2111-BT	Martin-Senour 3092
Type	high heat black silicone enamel	acrylic lacquer thinner
Curing	air dry	N/A
Coating density (lb coating/gal coating)	8.09	N/A
Volume percent solids (gal solids/gal coating)	21%	0%
Weight percent solids (lb solids/lb coating)	30%	0%
Solids density (lb solids/gal solids)	11.5	N/A
VOC density (lb VOC/gal VOC)	7.19	6.80
VOC content (lb VOC/gal solids)	27.0	N/A

See attached MSDS's and product information

Emission Estimate

	Wabash KA-2111-BT		Martin-Senour 3092
Volume used (gal) (calendar 1991)	106		5
Percent VOC by weight (lb VOC/lb coating)	70%		
Annual VOC emissions (lb/yr)	602		34
Total annual VOC emissions (lb/yr)		636	
Potential emissions (lb/yr)		**1,393**	

ARVIN
NORTH AMERICAN
AUTOMOTIVE

December 12, 1991

Ms. Kathy Prosser, Commissioner
Indiana Department of Environmental Management
105 South Meridian Street
P.O. Box 6015
Indianapolis, IN 46206-6015

RECEIVED
DEC 16 1991
State of Indiana
Department of Environmental Management
Office of Air Management

Subject: Air Pollution Source Permit Application

Dear Ms. Prosser:

The permit application for a new air pollution source at the Franklin, Indiana plant operated by Arvin North American Automotive (NAA) is enclosed. The source consists of two spray booths and an associated parts washer and dry-off/bake oven. Details of the installation, of course, are contained in the accompanying application.

The source is part of a major improvement program at the Franklin plant required to secure business with a new customer. The new line is required to start production in February 1992.

We are aware that this application gives IDEM very little leeway, however, it has only recently been determined that a permit is required. This program has been subject to frequent changes in customer requirements, the most recent of which moved the source from "registration" into "permit" ranges for potential emissions.

This paint system, and the new business it is intended for, are quite important to NAA, the Franklin plant, and the Franklin community. Every effort made to reduce delay in addressing this project will be appreciated.

Sincerely,

Douglas A. Logan, P.E.
Director of Environmental Affairs

1531 13th Street, Box Number 3002, Columbus, Indiana 47202 Phone: 812/379-3000 a division of Arvin Industries, Inc.

IDENTIFICATION OF POTENTIALLY AFFECTED PERSONS

Please read the attached letter from the Commissioner, and list here any persons whom you have reason to believe have a substantial or proprietary interest in this matter, or could otherwise be considered to be potentially affected under the law. Failure to notify a person who is later determined to be potentially affected could result in voiding our decision on procedural grounds. To ensure conformance with the Administrative Adjudication Act and to avoid reversal of a decision, please list all such parties. Use additional sheets if necessary.

NAME _____ NAME _____

STREET _____ STREET _____

CITY, STATE, ZIP _____ CITY, STATE, ZIP _____

NAME _____ NAME _____

STREET _____ STREET _____

CITY, STATE, ZIP _____ CITY, STATE, ZIP _____

NAME _____ NAME _____

STREET _____ STREET _____

CITY, STATE, ZIP _____ CITY, STATE, ZIP _____

CHECK APPROPRIATE BOX

- [x] Construction Permit
- [ ] Operation Permit
- [ ] Variance
- [ ] Other _____

ADDRESS OF SITE:

Street _____

City _____

Please complete this form by signing the following statement:

I certify that to the best of my knowledge I have listed all potentially affected parties, as defined by IC 4-21.5, known to me. If none are listed it signifies that no such parties are known.

SIGNATURE Douglas A. Logan

PRINTED NAME Douglas A. Logan

COMPANY Arvin North American Automotive

DATE 12/12/91

STATE OF INDIANA
DEPARTMENT OF ENVIRONMENTAL MANGEMENT
OFFICE OF AIR MANAGEMENT
CONSTRUCTION PERMIT APPLICATION

FORM A-C

RECEIVED
DEC 18 1991
State of Indiana
Department of Environmental Management
Office of Air Management

GENERAL INFORMATION

Company Name Arvin North American Automotive

Phone 812-379-3575

Mailing Address 1531 13th St., Columbus, IN 47201
Street, P.O. Box City Zip Code

New Construction Location 1001 Hurricane St., Franklin, IN 46131 Johnson
No., St., Rd., Hwy. City County

Person to Contact on Matters of Air Pollution:

Name Douglas A. Logan

Title Director of Environmental Affairs Phone 812-379-3575

If you have changed company name or location in the past six (6) years, please list the previous name(s) and location(s):

Name

Location

Standard Industrial Classification Code 3714
(if you do not know, a short description of business will suffice)

What is being installed? 5 new assembly lines with 2 associated paint booths

Is construction an entirely new plant? No

Estimated Cost of Project $ 3,000,000

Estimated Cost of Air Pollution Control Equipment $ 50,000

Estimated date construction will start See letter of transmittal

Estimated date construction will be complete 2/1/92

Estimated date operation will begin 2/1/92

I hereby certify that the information submitted this 12th day of December, 19 91 is true and correct to the best of my knowledge.

Signature Joe T. Atkins

Title President, Arvin North American Automotive

Plans and Specifications Approved By: Douglas A. Logan

Indiana P.E. License No. 910175

Control Option #2 - Regenerative Thermal Oxidation
Single Unit

Capital Cost

Single 63,000 SCFM regenerative thermal oxidation unit, 95% recovery sized per Equation 3.28, OAQPS Control Cost Manual, 4th Ed.	$1,042,000
Instrumentation, taxes, and freight @ 18%	188,000
Purchased Equipment Cost (PEC)	1,230,000
Installation direct costs @ 30% PEC	369,000
Installation indirect costs @ 31% PEC	381,000
Total Capital Cost (TCC)	$1,980,000

Annual Cost

1. Labor	
a. operator (1/2 hr/shft, 500 shft/yr @ $12.00/hr)	$3,000
b. supervisor @ 15% 1a	500
2. Maintenance	
a. labor (1/2 hr/shft, 500 shft/yr @ $14.00/hr)	3,500
b. materials @ 100% 2a	3,500
3. Utilities, per OAQPS Manual	
a. electricity (233 kW, 4,000 hr/yr @ $0.065/kWh)	60,600
b. natural gas (18.91 MCF/hr, 4,000 hr/yr @ $4.00/MCF)	302,600
4. Overhead @ 60% (1a+1b+2a)	4,200
5. Administration, property taxes, and insurance @ 4% TCC	79,200
6. Capital recovery @ 10 yr. and 10% (0.1628)	322,000
Total Annual Cost	$779,000
VOC reduction (25,350 lb. generated @ 98% removal)	24,800
Annual cost per pound of VOC removed	$31.41

Control Option #3 - Recuperative Thermal Oxidation

Capital Cost

Single 63,000 SCFM recuperative thermal oxidation unit, 70% recovery sized per Equation 3.27, OAQPS Control Cost Manual, 4th Ed.	$371,000
Instrumentation, taxes, and freight @ 18%	67,000
Purchased Equipment Cost (PEC)	438,000
Installation direct costs @ 30% PEC	131,000
Installation indirect costs @ 31% PEC	136,000
Total Capital Cost (TCC)	$705,000

Annual Cost

1. Labor	
a. operator (1/2 hr/shft, 500 shft/yr @ $12.00/hr)	$3,000
b. supervisor @ 15% 1a	500
2. Maintenance	
a. labor (1/2 hr/shft, 500 shft/yr @ $14.00/hr)	3,500
b. materials @ 100% 2a	3,500
3. Utilities, per OAQPS Manual	
a. electricity (233 kW, 4,000 hr/yr @ $0.065/kWh)	60,600
b. natural gas (50.5 MCF/hr, 4,000 hr/yr @ $4.00/MCF)	808,000
4. Overhead @ 60% (1a+1b+2a)	4,200
5. Administration, property taxes, and insurance @ 4% TCC	28,200
6. Capital recovery @ 10 yr. and 10% (0.1628)	115,000
Total Annual Cost	$1,027,000
VOC reduction (25,350 lb. generated @ 98% removal)	24,800
Annual cost per pound of VOC removed	$41.41

Control Option #4 - Regenerative Thermal Oxidation With Recirculating Air

Capital Cost

Single 21,000 SCFM regenerative thermal oxidation unit, 95% recovery sized per Equation 3.28, OAQPS Control Cost Manual, 4th Ed.	$509,000
Additional ductwork for recirculating 67% of spray booth air	80,000
Instrumentation, taxes, and freight @ 18%	92,000
Purchased Equipment Cost (PEC)	681,000
Installation direct costs @ 30% PEC	204,000
Installation indirect costs @ 31% PEC	211,000
Total Capital Cost (TCC)	$1,096,000

Annual Cost

1. Labor	
a. operator (1/2 hr/shft, 500 shft/yr @ $12.00/hr)	$3,000
b. supervisor @ 15% 1a	500
2. Maintenance	
a. labor (1/2 hr/shft, 500 shft/yr @ $14.00/hr)	3,500
b. materials @ 100% 2a	3,500
3. Utilities, per OAQPS Manual	
a. electricity (77.8 kW, 4,000 hr/yr @ $0.065/kWh)	20,200
b. natural gas (6.3 MCF/hr, 4,000 hr/yr @ $4.00/MCF)	100,800
4. Overhead @ 60% (1a+1b+2a)	4,200
5. Administration, property taxes, and insurance @ 4% TCC	43,800
6. Capital recovery @ 10 yr. and 10% (0.1628)	178,000
Total Annual Cost	$358,000
VOC reduction (25,350 lb. generated @ 98% removal)	24,800
Annual cost per pound of VOC removed	$14.44

Control Option #5 - Recuperative Thermal Oxidation With Recirculating Air

Capital Cost

Single 21,000 SCFM recuperative thermal oxidation unit, 70% recovery sized per Equation 3.27, OAQPS Control Cost Manual, 4th Ed.	$282,000
Additional ductwork for recirculating 67% of spray booth air	80,000
Instrumentation, taxes, and freight @ 18%	51,000
Purchased Equipment Cost (PEC)	413,000
Installation direct costs @ 30% PEC	124,000
Installation indirect costs @ 31% PEC	128,000
Total Capital Cost (TCC)	$665,000

Annual Cost

1. Labor	
a. operator (1/2 hr/shft, 500 shft/yr @ $12.00/hr)	$3,000
b. supervisor @ 15% 1a	500
2. Maintenance	
a. labor (1/2 hr/shft, 500 shft/yr @ $14.00/hr)	3,500
b. materials @ 100% 2a	3,500
3. Utilities, per OAQPS Manual	
a. electricity (77.8 kW, 4,000 hr/yr @ $0.065/kWh)	20,200
b. natural gas (16.8 MCF/hr, 4,000 hr/yr @ $4.00/MCF)	268,800
4. Overhead @ 60% (1a+1b+2a)	4,200
5. Administration, property taxes, and insurance @ 4% TCC	26,600
6. Capital recovery @ 10 yr. and 10% (0.1628)	108,000
Total Annual Cost	$438,000
VOC reduction (25,350 lb. generated @ 98% removal)	24,800
Annual cost per pound of VOC removed	$17.66

STATE OF INDIANA
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR MANAGEMENT

FORM B

Plant Layout and GEP Stack Height Information Sheet

Company Name Arvin North American Automotive - Franklin, IN Plant

This permit application must include a plant layout(s) showing the following information:

1. Drawings, several, if necessary, but each one must be to scale, with actual scale shown. All dimensions must be clearly indicated. This includes building heights, widths, and lengths, and their distance relationship with the property line. It should also indicate where fences or other access-limiting features exist.

2. The layout must show the location of all emission points (exhaust stacks, roof monitors, control devices, or process vents, etc.). Identify each of these emission points under "Stack Identification" on the appropriate forms.

3. The layout(s) must show all roadways and description of roadway surfaces.

4. The layout(s) must include a compass pointing north.

See accompanying drawings

FORM C

STATE OF INDIANA
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR MANAGEMENT

Incinerator Information

Not Applicable X

Company Name Arvin North American Automotive - Franklin, IN Plant

Manufacturer _____ Model _____

(Furnish sketch with dimensions)

Design Capacity _____ lb/hr _____ Btu/hr

Type of Waste Burned (Be Specific) _____

_____

Check one: Single Chamber w/Afterburner_____ Multiple Chambers_____

Burner in Primary Chamber? Yes_____ No_____

Burner in Secondary Chamber? Yes_____ No_____

Type of Fuel_____

Chamber	Primary	Secondary
Residence Time (sec)	_____	_____
Temperature (°F)	_____	_____

STACK DATA

Stack Identification_____

Height (ft above ground)_____

Diameter (ft inside)_____

Gas discharge Temperature (°F)_____

Gas Flow Rate (acfm)_____

OPERATION SCHEDULE

Hours/Day _____

Days/Week _____

Weeks/Year_____

Manufacturer's Guaranteed Emission Rate (lb particulate matter per 1,000 lb dry exhaust gas at 70°F and 1 atm, corrected to 50 % excess air) _____

Revised 9/22/88

STATE OF INDIANA
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR MANAGEMENT

Fuel Combustion Information
Boilers, Heaters, Ovens or other Fuel Combustion Units (FCU)

Not Applicable_____

Company Name Arvin North American Automotive - Franklin, IN Plant

Type of FCU	boiler (Kewanee)	boiler (Kewanee)
FCU Identification	25581	25582
Method of Fuel Feed		
* Capacity (MM Btu/hr input)	3.6	3.6
** Fire Box Volume (cu ft)		
Start of Construction Date	1978	1978
Start of Operation Date	1978	1978
FUEL		
Type Used	natural gas	natural gas
% Ash Min/Max (solid fuel only)		
% Sulfur Min/Max		
Higher Heating Value Min/Max	1 MM BTU/MCF	1 MM BTU/MCF
Amount Burned/Yr (ton, cu ft, gal)	32000 MCF (max)	32000 MCF (max)
EMISSION CONTROL UNIT		
Type of PM Emission Control Unit	none	none
% Efficiency		
Type of SO2 Emission Control Unit	none	none
% Efficiency		
Type of NOx Emission Control Unit	none	none
% Efficiency		
STACK DATA		
Stack Identification	NA	NA
Height (ft above ground)	52	52
Diameter (ft inside)	3	3
Gas Discharge Temperature (°F)	not determined	not determined
Gas Flow Rate (acfm)	not known	not known
OPERATION SCHEDULE		
Hours/Day	variable	variable
Days/Week		
Weeks/Year		

* note: MM = million
** complete only if boiler over 100 MM Btu/hr

Revised 10-25-88

NOTE: All boilers listed can run on #2 fuel oil as standby fuel.

STATE OF INDIANA
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR MANAGEMENT

Fuel Combustion Information
Boilers, Heaters, Ovens or other Fuel Combustion Units (FCU)

Not Applicable_____

Company Name ARvin North American Automotive - Franklin, IN Plant

Type of FCU	boiler (Cliff)	boiler (Cliff)
FCU Identification	6450	7463
Method of Fuel Feed		
* Capacity (MM Btu/hr input)	3.6	3.6
** Fire Box Volume (cu ft)		
Start of Construction Date	1921	1921
Start of Operation Date	1921	1921
FUEL		
Type Used	Natural Gas	Natural Gas
% Ash Min/Max (solid fuel only)		
% Sulfur Min/Max		
Higher Heating Value Min/Max	1 MMBTU/MCF	1 MMBTU/MCF
Amount Burned/Yr (ton, cu ft, gal)	32000 MCF (Max.)	32000 MCF (Max.)
EMISSION CONTROL UNIT		
Type of PM Emission Control Unit	None	None
% Efficiency		
Type of SO2 Emission Control Unit	None	None
% Efficiency		
Type of NOx Emission Control Unit	None	None
% Efficiency		
STACK DATA		
Stack Identification	NA	NA
Height (ft above ground)	52	52
Diameter (ft inside)	3	3
Gas Discharge Temperature (°F)	Not determined	Not determined
Gas Flow Rate (acfm)	Not known	Not known
OPERATION SCHEDULE		
Hours/Day	Variable	Variable
Days/Week		
Weeks/Year		

* note: MM = million
** complete only if boiler over 100 MM Btu/hr

Revised 10-25-88

STATE OF INDIANA
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR MANAGEMENT

Fuel Combustion Information
Boilers, Heaters, Ovens or other Fuel Combustion Units (FCU)

Not Applicable _____

Company Name Arvin North American Automotive - Franklin, IN Plant

Type of FCU	(Cleaver-Brooks) boiler	boiler (Johnston)
FCU Identification	25646	14019
Method of Fuel Feed		
* Capacity (MM Btu/hr input)	11.7 (Max.)	2.7
** Fire Box Volume (cu ft)		
Start of Construction Date	1978	1964
Start of Operation Date	1964	
FUEL		
Type Used	Natural Gas	Natural Gas
% Ash Min/Max (solid fuel only)		
% Sulfur Min/Max		
Higher Heating Value Min/Max	1 MMBTU/MCF	1 MMBTU/MCF
Amount Burned/Yr (ton, cu ft, gal)	102000 MCF (Max.)	24000 MCF (Max.)
EMISSION CONTROL UNIT		
Type of PM Emission Control Unit	None	None
% Efficiency		
Type of SO2 Emission Control Unit	None	None
% Efficiency		
Type of NOx Emission Control Unit	None	None
% Efficiency		
STACK DATA		
Stack Identification	NA	NA
Height (ft above ground)	23	20
Diameter (ft inside)	1.67	1
Gas Discharge Temperature (°F)	Not determined	Not determined
Gas Flow Rate (acfm)	Not known	Not known
OPERATION SCHEDULE		
Hours/Day	Variable	Variable
Days/Week		
Weeks/Year		

* note: MM = million
** complete only if boiler over 100 MM Btu/hr

Revised 10-25-88

NOTE: Cleaver-Brooks boiler is rated at 250-350 HP.

STATE OF INDIANA
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR MANAGEMENT

Fuel Combustion Information
Boilers, Heaters, Ovens or other Fuel Combustion Units (FCU)

Not Applicable_____

Company Name Arvin North American Automotive, Franklin, IN Plant

Type of FCU	Heater	Oven
FCU Identification	Parts Washer	Bake oven
Method of Fuel Feed		
* Capacity (MM Btu/hr input)	0.8 (Max.)	1.2 (operating)
** Fire Box Volume (cu ft)		
Start of Construction Date	1991	1991
Start of Operation Date	1992	1992
FUEL		
Type Used	Natural gas	Natural gas
% Ash Min/Max (solid fuel only)		
% Sulfur Min/Max		
Higher Heating Value Min/Max	1 MMBTU/MCF	1 MMBTU/MCF
Amount Burned/Yr (ton, cu ft, gal)	3,200 MCF (Max.)	4,800 MCF
EMISSION CONTROL UNIT		
Type of PM Emission Control Unit	None	None
% Efficiency		
Type of SO2 Emission Control Unit	None	None
% Efficiency		
Type of NOx Emission Control Unit	None	None
% Efficiency		
STACK DATA		
Stack Identification		None
Height (ft above ground)	Discharges to oven	Not determined
Diameter (ft inside)		Not known
Gas Discharge Temperature (°F)		350° F
Gas Flow Rate (acfm)		2,400
OPERATION SCHEDULE		
Hours/Day	16	16
Days/Week	5	5
Weeks/Year	50	50

* note: MM = million
** complete only if boiler over 100 MM Btu/hr

Revised 10-25-88

STATE OF INDIANA
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR MANAGEMENT

FORM E

Process Information

Not Applicable _____

Company Name Arvin North American Automotive - Franklin Plant

Products Produced Automotive Parts

Raw Material Rate (use an additional sheet if needed)

TYPE MATERIAL	RATE (LB/HR)
Wabash KB-2618	7.52
Wabash KB-318	4.80

Finished Product

Pounds/Hour Maximum Not determined Normal _____

Process and Control Equipment (Use and additional sheet if needed)

Process Identification:
2 Binks paint booths, 1 with parts washer, dry off oven, and bake oven.

Type of Control Andrea filter (dry filter)
Efficiency About 90%
For Dry Collectors, Tons/year Collected N/A

STACK DATA

Stack Identification None

Height (ft. above ground) 30'

Diameter (ft. inside) 2.83

Gas Discharge Temperature (Deg F) Ambient

Gas Flow Rate (acfm) 30,000 CFM each spray booth

Operation Schedule

Hours/Day 16
Days/Week ≤ 5
Weeks/Year 50

STATE OF INDIANA
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR MANAGEMENT

FORM F

Flow Diagram

Not Applicable_____

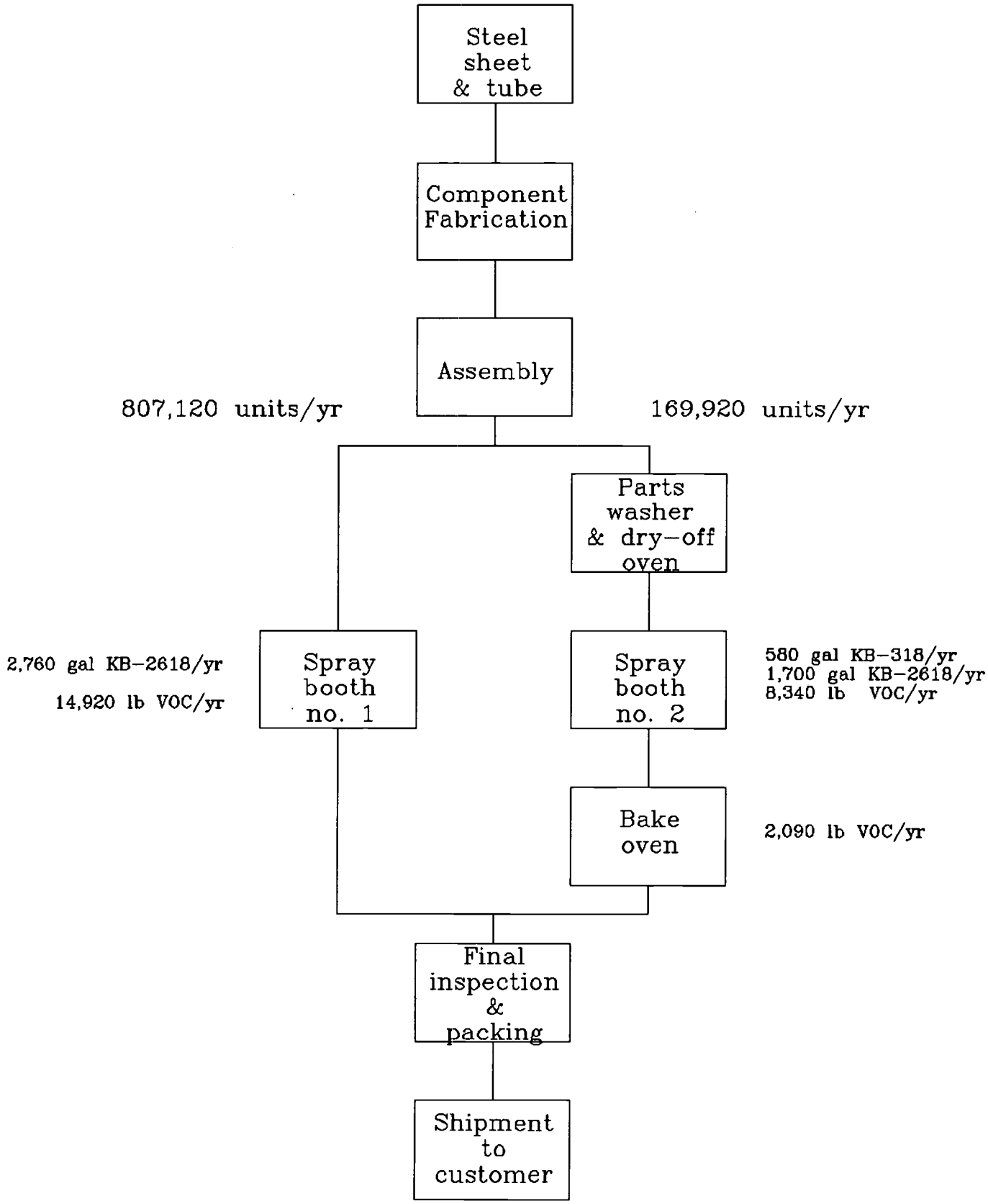
Company Name Arvin North American Automotive, Franklin, IN Plant

This permit application must include a simple flow diagram of your operation from raw materials input to the finished products. Show points of emission including stacks. Show location of air pollution control equipment, the process it controls, and removal efficiency. State the maximum hourly capacity of each step of the operation.

See attached sheet

Arvin NAA
Franklin Plant
December 12, 1991

Process Flow Diagram



STATE OF INDIANA
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR MANAGEMENT

FORM G

Storage and Handling of Bulk Material

Not Applicable X

Company Name Arvin North American Automotive, Franklin, IN Plant

Material Handled or Stored	Method of Handling	Silo, Bin or Pile	Storage Capacity (Tons)	Maximum Throughput (Tons/Yr)	(Lb/Hr)

Dust Control Methods

Process

Type of Control

Efficiency

FORM Q

Indiana Department of Environmental Management
Office of Air Management

PARTICULATE CONTROL DEVICES

GENERAL INFORMATION

Emission point identification (complete a separate page for each device) Spray booth exhaust

Percent of Particulate Matter less than 10 microns at the outlet not known %

Grain loading per actual cubic foot of outlet air 0.0008, Average gas Temperature ambient °F

Design percentage collection efficiency 90 % (1- Weight Leaving) X100
(Weight Entering)

SPECIFIC COLLECTOR INFORMATION

A. CYCLONE

Number of tubes_____, Tube diameter _____in.

B. BAGHOUSE

Bag material_____

Total filter area_____ft^2, Air to cloth ratio_____$acfm/ft^2$

Pressure drop across baghouse_____inches of water

Method of bag cleaning (ie. shaking, jetpulse etc...)_____

C. ELECTROSTATIC PRECIPITATOR (ESP)

Type of ESP: Wet_____, Dry_____, Hot Side_____, Cold Side_____

Face velocity across the plates_____ft/sec, Total face surface area_____ft^2

Number of fields along flow path_____, Gas conditioning agent_____

Delay time between starting of system and ESP unit operation_____

Why?_____

D. WET COLLECTORS (Scrubber Type_____)

Pressure drop across scrubber_____inches of water, Flow Rate_____gpm

Scrubbing liquor_____, Liquid to air ratio_____$gpm/10^3 acfm$

Is there a demister following the scrubber?_____

Settling pond: volume_____ft^3, Depth_____ft, Width_____ft, Length_____ft,

Diameter (if circular)_____ft

Revised 8/11/88

STATE OF INDIANA
AIR POLLUTION CONTROL BOARD

Petroleum Storage Facilities

Fill out a section for every tank with a capacity of over 250 gallons. For type of tank use cone roof, fixed roof, floating roof, or others (specify).

Company Name Arvin North American Automotive, Franklin, IN plant

TANK INFORMATION

Tank ID number		
Tank capacity (gallons)	58,753	300
Product stored	No. 2 fuel oil	Diesel fuel
Tank diameter (ft)	20	3.17
Height of tank (ft)	25	5.08
Vapor pressure (specify temp. & if Reid or True)		
Annual throughout gallons	44,800	6,400
Type of tank	Fixed roof	Horizontal
Vapor recovery or other		
Control systems		
Efficiency %		
Method of venting		
Age of tank		
Submerged filled (bottom loaded)		
LOADING FACILITIES		
Loading rack ID		
Size (gallons/minute)		
Loading arm ID		
Size (gallons/minute)		

For floating roof tanks:
If the seals have been replaced, supply month and year _____
If the seals have been repaired, supply month and year _____

State Form 1491
rev 9/78
SBH81-062

STATE OF INDIANA
AIR POLLUTION CONTROL BOARD

Petroleum Storage Facilities

Fill out a section for every tank with a capacity of over 250 gallons. For type of tank use cone roof, fixed roof, floating roof, or others (specify).

Company Name Arvin North American Automotive, Franklin, IN Plant

TANK INFORMATION

Tank ID number		
Tank capacity (gallons)	300	300
Product stored	Regular gasoline	Regular gasoline
Tank diameter (ft)	3.17	3.17
Height of tank (ft)	5.08	5.08
Vapor pressure (specify temp. & if Reid or True)		
Annual throughout gallons	7,200	7,200
Type of tank	Horizontal	Horizontal
Vapor recovery or other		
Control systems		
Efficiency %		
Method of venting		
Age of tank		
Submerged filled (bottom loaded)		
LOADING FACILITIES		
Loading rack ID		
Size (gallons/minute)		
Loading arm ID		
Size (gallons/minute)		

For floating roof tanks:
If the seals have been replaced, supply month and year _____
If the seals have been repaired, supply month and year _____

State Form 1491
rev 9/78
SUH81-062

STATE OF INDIANA
AIR POLLUTION CONTROL BOARD

Petroleum Storage Facilities

Fill out a section for every tank with a capacity of over 250 gallons. For type of tank use cone roof, fixed roof, floating roof, or others (specify).

Company Name Arvin North American Automotive, Frnaklin, IN Plant

TANK INFORMATION

Tank ID number		
Tank capacity (gallons)	300	
Product stored	Unleaded gasoline	
Tank diameter (ft)	3.17	
Height of tank (ft)	5.08	
Vapor pressure (specify temp. & if Reid or True)		
Annual throughput gallons	1,750	
Type of tank	Horizontal	
Vapor recovery or other		
Control systems		
Efficiency %		
Method of venting		
Age of tank		
Submerged filled (bottom loaded)		
LOADING FACILITIES		
Loading rack ID		
Size (gallons/minute)		
Loading arm ID		
Size (gallons/minute)		

For floating roof tanks:
If the seals have been replaced, supply month and year_____
If the seals have been repaired, supply month and year_____

State Form 1491
rev 9/78
SUH61-062

STATE OF INDIANA
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR MANAGEMENT

SURFACE COATING AND ACCESSORY SOLVENTS

Company Name Arvin NAA Franklin, IN Plant

1 Material (Coatings, Solvents, Etc.)	2 Identification Number	3 Material Density Lb / Gal	4 Weight % Volatiles (Water and Organics)	5 Weight % Water	6 Volume % Water	7 Volume % Non-volatiles (Solids)	8 Gallons of Material* Required for One Production Unit Gal / Production Unit	9 Maximum Number of Production Units per Hour	10 Process or Booth I. D.
Coating	KB 2618	9.01	60	0	0	25	.0034	245	Booths 1 & 2
Coating	KB 318	11.29	38	0	0	58	0.010	43	Booth 2

* If different types or sizes of units are coated in the same paint booth with the same coating, this amount should be based on the production unit requiring the most gallons per hour. Gallons per hour = Column 8 x Column 9. If different coatings are used, they must be listed as a separate material.

Attach a Material Safety Data Sheet (MSDS) for each material listed on this form.

Density is determined by ASTM D1475-60, or other method approved by OAM.
Weight % Volatiles is determined by ASTM D2369-81, or other method approved by OAM.
Weight % Water is determined by ASTM D3792 or other method approved by OAM.

Revised 8-23-88

STATE OF INDIANA
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR MANAGEMENT

SURFACE COATING AND ACCESSORY SOLVENTS

Company Name Arvin NAA, Franklin, IN Plant

Process or Booth Identification (1)	Booth 1	Booth 2		
Application Method (2)	Spraying	Spraying		
If sprayed Specify type (3)	HVLP	HVLP		
Type of Overspray controls (4)	Dry Filters	Dry Filters		
Control Efficiency	90%	90%		
Type of Hydrocarbon controls (5)	None	None		
Control Efficiency				
Stack Height (feet above ground)	30	30		
Stack Diameter (inches)	3	3		
Exhaust flow Rate (acfm)	30,000	30,000		
Exhaust Discharge Temperature °F	Ambient	Ambient		

Operating Schedule: 16 hours/day 5 days/week 50 weeks/year

1. Use identifiers from forms B and F.

2. Method of application refers to dipping, spraying, rollcoating, brushing, flowcoating, or other.

3. Types of spray coating include: air atomization, airless, electrostatic disc, electrostactic airless, electrostatic air atomized, low pressure air atomization, low pressure-high volume, or other.

4. Overspray controls include: dry and wet filters, baffles, waterwash, or other.

5. Hydrocarbon controls include: catalytic or direct flame incineration, solvent recovery, carbon adsorption, or other.

FORM Y

STATE OF INDIANA
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR MANAGEMENT

Air Toxic Pollutants

Company Name ARVIN NORTH AMERICAN AUTOMOTIVE

Location FRANKLIN, IN

Place an "X" beside each compound listed that will be emitted into the air from the equipment covered by this application. Attach a Material Safety Data Sheet (MSDS) for each toxic containing material. List emission points (as identified on the site plot plan) for each compound.

X	CAS#	Compound	Emission Points	Maximum Emission Rate (pounds/hr)
	0075-07-0	Acetaldehyde		
	0107-13-1	Acrylonitrile		
	0071-43-2	Benzene		
	50-32-8	Benzo-a-pyrene		
	0067-66-3	Chloroform		
	SEQ:3	Coke oven emissions		
	1319-77-3	Creosols		
	0132-32-7	Dibenzofuran		
	0095-50-1	o-Dichlorobenzene		
	0123-91-1	1,4-Dioxane		
	0106-89-8	Epichlorohydrin		
	0106-93-4	Ethylene Dibromide		
	0107-06-2	Ethylene Dichloride		
	0075-21-8	Ethylene Oxide		
	0050-00-0	Formaldehyde		
	118-74-1	Hexachlorobenzene		
	0077-47-4	Hexachlorocyclopentadiene		
	0075-09-2	Methylene Chloride		
	78-00-2	Lead (alkylated) Compounds		
	7439-97-6	Mercury		
	1336-36-3	PCB's		
	0127-18-4	Perchloroethylene		
	0108-95-2	Phenol		
	0075-56-9	Propylene Oxide		
	0110-86-1	Pyridine		
	0100-42-5	Styrene		
	51207-31-9	2,3,7,8-Tetrachlorodibenzofuran		
	1746-01-6	2,3,7,8-Tetrachlorodibenzo-p-dioxin		
X	0108-88-3	Toluene	BOOTHS 1&2, OVEN	2.75
	0079-01-6	Trichloroethylene		
	0076-13-1	Freon 113		
	0071-55-6	1,1,1-Trichloroethane		
	0079-00-5	1,1,2 Trichloroethane		
	0075-35-4	Vinylidene Chloride		
X	1330-20-7	Xylenes	BOOTHS 1&2, OVEN	2.78

____ None of these compounds will be emitted from the equipment listed in this application.

Include stack parameters for each listed air toxic emission point on the appropriate form.

Revised 7-07-89

Attachment 1

Design Specifications and

Production Information

Process Description

The proposed air pollution source is a paint system to be installed in conjunction with associated fabrication and assembly lines for new products. The new product line is a series of automobile exhaust pipe assemblies and mufflers being produced for a new customer. The proposed source is necessary in order to meet customer requirements.

These products will be sold to the customer in vehicle sets consisting of two pipe assemblies and one muffler assembly. Wabash Products KB-2618 high heat aluminum silicone enamel will be applied using manual HVLP spray guns to the welds on each assembly for protection and appearance. All of the pipe assemblies and somewhat less than half of the muffler assemblies (a total of 807,120 units per year) will be painted with KB-2618 in Spray Booth No. 1. Laboratory tests indicate that 14 grams of KB-2618 enamel will be required for each component, a total of 42 grams for each vehicle set. These tests determined the amount of paint sprayed to achieve the necessary coverage, so that transfer efficiency is not a factor in emission calculations.

Somewhat more than one half of the muffler assemblies (169,920 units per year) will also have Wabash Products KB-318 black silicone enamel applied in order to meet the customer's appearance requirements. Before entering Spray Booth No. 2 the assemblies will pass through a 3-stage washer system (1-145°F wash stage, 2-ambient temperature rinse stages) followed by a 20 minute pass through a 300°F dry-off oven combined with the bake oven. The black paint and the aluminum paint for these assemblies will be applied using manual HVLP spray guns in Spray Booth No. 2. KB-318 is an oven-cured coating and after application of both paints in a single pass through Spray Booth No. 2 the muffler assemblies will undergo a one hour cure cycle in a 350°F bake oven.

Each muffler assembly painted in Spray Booth No. 2 will require 14 g. of KB-2618 (aluminum) and 51 g. of KB-318 (black). These quantities were determined in laboratory tests (using production-type spray guns) measuring the amount of paint sprayed to achieve the necessary coverage, so that transfer efficiency is not a factor in emission calculations. The assumption that 20% of VOC emissions occur in the bake oven is based on Compilation of Air Pollutant Emission Factors, (AP-42, 4th Ed., September 1985).

The spray booths will use dry, paint arrestor filters for particulate control. Pressure drop accross the filters will be monitored so that filters can be changed as required to maintain efficiency. Used filters will be disposed of as a special waste.

Fuel combustion units included in the installation are natural gas burners for the first stage of the power washer and the combined dry-off and bake oven. The washer heat source is rated at 800,000 BTUH (max) and the oven burner is rated at 1,200,000 BTUH (operating).

Spray Booth No. 1

THE GAGE COMPANY
COLUMBUS DIVISION

982 SOUTH MARR ROAD
P.O. BOX 1967
COLUMBUS, INDIANA 47202

ABRASIVES & CUTTING TOOLS
BELTING, HOSE & RUBBER
POWER TRANSMISSION
AIR & FLUID POWER
VALVES & CONTROLS
TOOLS, EQUIPMENT & SUPPLIES

QUOTATION

PHONE: (812) 376-9487
FAX: (812) 376-0639
TOLL FREE 800-423-0955

DATE April 29, 1991

OUR NUMBER 18-91-61

REFERENCE NO.

TO Arvin Industries
North American Automotive
Franklin, IN
Attn: Mr. Ken Patton
Mr. J. Bell

We are pleased to quote the following finishing equipment for use at your facility.

ONE BINKS SPECIAL PFA 24-10-T CONVEYOR TYPE ANDREAE FILTER SPRAY BOOTH

Booth Dimensions:
24' 0".....Wide
10' 0".....High
10' 0".....Working Depth
11' 8".....Depth Overall

Booth will be constructed of 18 gauge galvanized unpainted panels, each panel formed with companion flanges punched on 6" centers for bolted assembly. Booth will have a fire deflector curtain and (3) rows of Andreae filters, each 3' 0" high, running the full width of the booth. The media is made of special non-fire supporting paper and is formed into double accordian type folds with staggered holes to provide a highly efficient filter.

Booth will be furnished with a 29-551 draft gauge.

Each side of the booth will have a conveyor opening 2' 6" wide x 8' 0" high.

Booth to be arranged for top exhaust.

2 - 30-4306, 34" diameter double ring exhaust fan

2 - 5 HP, totally enclosed ball bearing motor 460 volt, 60 cycle, 3 phase

Total Fan Capacity: 25,000 CFM @ 1/4" static pressure
Calculated Face Velocity: 105 FPM thru empty booth

6 - 29-1094, 4 tube, 40 watt, 120 volt, Class I, Division II, enclosed and gasketed fluorescent fixture (less tubes)

6 - 29-450, 16" x 54" R. S. Misco wire glass windows

1 - General purpose light switch

2 - 34" diameter 6' 0" length spiral exhaust stack with access door

4 - 34" diameter 6' 0" length plain spiral exhaust stack

2 - 29-31, 34" diameter flat-type roof flange

2 - 29-95, 34" diameter combination automatic damper and weather hood with attached connector ring

SPRAY BOOTH EQUIPMENT PRICE FOB FRANKLIN PARK, IL

.....$11,874.00

DELIVERY: 8 - 10 WEEKS FROM ORDER

TERMS: NET 30 DAYS

PAINTING EQUIPMENT

3 - Mach 1 HVLP Spray Gun

2 - 41-5003 Comet 2:1 air operated pump with air control, agitator, 55 gal. drum cover

1 - 31-131 55 gal. drum cover with air operated agitator

2 - 41-9000 55 gal. cover elevators air operated

1 - 37-804 fluid filter

3 - 86-945 oil and water extractor with regulator

2 - 71-1202 10' 5/16" air hose assy.

2 - 71-1205 25' x 5/16" air hose assy.

2 - 71-3303 25' x 3/8" air hose assy.

2 - 84-345 fluid regulator with 72-81712 ball valve

2 - 72-81611 ball valve

1 - 84-381 back pressure regulator

4 - 6' length 1/2" diameter fluid hose with fittings

4 - 1/2" ball valves, fluid

2 - Item misc. fittings

PAINTING EQUIPMENT PRICE FOB FRANKLIN PARK, IL

.....$7,386.00

DELIVERY: 6 - 8 WEEKS FROM ORDER

TERMS: NET 30 DAYS

ERECTION OF BOOTH, STACK CONTROLS AND PAINTING EQUIPMENT

Install booth and stack quoted above.

Furnish and install Nema 12 Control Panel with:

Disconnect

Motor starters for fans

Push buttons and indicator lights

Conveyor motor controls (furnished with conveyor)

(3) conveyor stop/with detent
(final power to control panel by others)

Install booth lighting
(up to 25' run for 110V power)

Furnish and install up to 50' x 3/4" air piping
(main valve by others)

Furnish and install up to 80' x 1/2" black iron
circulating pipe for paint system

Note: Final layout will need to be reviewed on air and fluid piping for possible price adjustment. Conveyor stop locations are to be determined.

Quoted scope does not include:

Permits
Field painting
Fire protection
Freight
Unloading

PRICE OF ERECTION

.....$13,982.00

TERMS: UPON COMPLETION

Spray Booth No. 2

Including:	3-stage parts washer dry-off oven bake oven
Note:	Since the receipt of the proposal from FSC, it has been decided to install a duplicate of Spray Booth No. 1 in this application

F S C

FINISHING SYSTEMS CORP.

Complete Paint Finishing Systems

750 EAST BROADWAY
FORTVILLE, IN. 46040
(317) 485 6988
FAX (317) 485 4419

May 8, 1991

ARVIN AUTOMOTIVE
1001 Hurricane St.
Franklin, IN 46131

Attn: Mr. Lucien Jones

PROPOSAL #13991

Scope:

Provide New Metal Pretreatment System for Wet Coating at your Franklin, Indiana, plant for coating of tailpipe/muffler assemblie as discussed in our meeting of 4/10/91.

Items Included In This Proposal Are As Follows:

I. GAS FIRED THREE STAGE POWER SPRAY WASHER
II. GAS FIRED COMBINATION DRY OFF & PAINT CURING OVEN.
III. CUSTOM SPRAY BOOTH
IV. NEW OVERHEAD CONVEYOR SYSTEM
V. SYSTEM INSTALLATION (OPTIONAL)
VI. APPROVALS AND CANCELLATIONS
VII. PRICING, TERMS & CONDITIONS
VIII. DELIVERY
IX. SUMMARY

Utilities:

Electrics 460/3/60
Gas ..... Natural
Water ..... City
Sewage ..... City

Design Criteria:

Conveyor Speed ..... 4 F.P.M.

Silhouette Opening ..... 24" wide x 54" high
Conveyor Slot Height ..... 27"
Maximum Part Size ..... 18" wide x 48" high x 24" long

I. GAS FIRED THREE STAGE POWER WASHER

Proposed washer is designed for three process stages with the following general dimensions.

Width ..... 6 '-6 "
Height ..... 10 '-0"
Length ..... 32'-0"

Zone Specifications

A. ENTRANCE ..... 5'-0"
B. CLEANER..... 5'-0"
C. DRAIN ..... 6'-0"
D. RINSE #1 ..... 3'-0"
E. DRAIN ..... 5'-0"
F. RINSE #2..... 3'-0"
M. EXIT DRAIN ..... 5'-0"
Exit will be provided with compressed air blow off nozzles.

Process Specifications @ 4 F.P.M.

Stage No. 1

Process ..... Clean
Duration ..... 60 Seconds
Temperature ..... 140-150 F.
Risers ..... (5) Schedule 80 CPVC
Nozzles ..... (60) E-Z Spray Vee Jets 4.3 G.P.M. @20 P.S.I.
Pump ..... Haynes or equal #6551 - 4 x 3 x 10 Vertical all Iron Barrel Mount 7 1/2 H.P. Rated 260 G.P.M. @ 55' T.D.H.
Heat Input ..... 800,000 B.T.U.H. Max.
Heat Source ..... Maxon 8" Tube-O-Flame Burner
Flame Safety ..... Protection Controls, Inc. or equal
Tank Capacity ..... 800 Gallons
Drain ..... 2" w/Overflow

Stage No. 2:

Process ..... Rinse #1
Duration ..... 30 Seconds
Temperature ..... Ambient
Risers ..... (3) Schedule 80 CPVC
Nozzles ..... (36) E-Z Spray Vee Jets 4.3 G.P.M. @ 20 P.S.I.
Pump ..... Haynes or equal #6551 - 3 x 2 x 10 Vertical all Iron Barrel Mount 5 H.P.

	Rated 160 G.P.M. @ 55' T.D.H.
Tank Capacity	450 Gallons
Drain	2" w/Overflow

Stage No. 3:

Process	Rinse #2
Duration	30 Seconds
Temperature	Ambient
Risers	(3) Schedule 80 CPVC
Nozzles	(36) E-Z Spray Vee Jets 3.5 G.P.M. @ 15 P.S.I.
Pump	Haynes or equal #6551 - 3 x 2 x 8 Vertical all Iron Barrel Mount 3 H.P. Rated 130 G.P.M. @ 45' T.D.H.
Tank Capacity	350 Gallons
Drain	2" w/Overflow

Manufacturing Specification:

Tanks	1/4" Mild steel plate with all joints double welded, set on suitable structural steel base complete with sealed and gasketed hinged lids, 2" or 3" overflow type drains provided with all iron gate valves.
Drain sections	7Ga. mild steel at entrance, between stages and at exit.
Housing	10Ga. mild steel welded panels.
Manifold Piping	Standard schedule 40 Black or CPVC pipe. Pump discharge pipes are equipped with pressure and temperature gauges where applicable and pump discharge pressure butterfly type throttling valves.
Pump Compartments	Equipped with #4 stainless 14ga. mesh double screens designed for 100 gallons per square foot minimum flow rate.
Liquid Level Control	Each tank will be provided with automatic fill box and level control float and also fast fill valve for tank system charge.
Exhaust System	Washer will be provided with exit and entrance canopies for exhausting mist and vapor spill. Exhaust fans will be 16" diameter tubeaxial type with belt driven 1/3 H.P. motors. Fans are rated 1780 C.F.M. @ 1/8" s.p.

Control Panel ..... NEMA 12 Cabinet with main cover interlocking fusible disconnect switch, control circuit transformer, magnetic starters, pushbuttons, pilot lights, P.C.I. flame safety system. All electrical controls are Allen Bradley where possible.

Service Connections ..... Washer is prewired and prepiped to single point service connections to accept plant services.

Paint ..... Unit will receive one shop coat of primer and finish paint.

Energy Saving System ..... All washer burner tubes will discharge into receiver duct located inside Dry Off oven thus utilizing exhaust heat for drying in addition to the oven combustion cabinet.

II. GAS FIRED COMBINATION DRY OFF AND PAINT CURING OVEN

Design Criteria:

1. Maximum temperature 400 F.
2. Operating Temperature 300 F. Dry Off Oven
3. Operating Temperature . 350 F. Curing Oven
4. Recirculating Air ..... 24,000 C.F.M. @ 1 1/2" s.p.
5. Exhaust Air ..... 2,400 C.F.M.
6. Heat Input Operating .. 1,200,000 B.T.U.H.

GAS FIRED DRY OFF

Design Criteria:

1. Maximum temperature 350 F.
2. Operating Temperature 300 F. Dry Off Oven
3. Recirculating Air ..... 24,000 C.F.M. Combo w/curing oven
4. Exhaust Air ..... 2,400 C.F.M. Combo w/ curing oven
5. Heat Input Operating .. 1,200,000 B.T.U.H.

GAS FIRED POWDER CURING OVEN

Design Criteria:

1. Maximum temperature 400 F.
2. Operating Temperature . 350 F. Curing Oven
3. Recirculating Air ..... 24,000 C.F.M. @ 1 1/2" s.p.
4. Exhaust Air ..... 2,400 C.F.M. Dry Off.
5. Heat Input Operating .. 1,200,000 B.T.U.H.

Oven is direct gas fired with remote combustion chamber and recirculated distribution of convection air.

Oven will conform to configuration on proposal drawing approximately 18'-0" Wide x 31'-0" Long x 8'4" High. Oven frame is of structural wide flange beam and channel bolted or welded together to form a substantial support for conveyor and enclosure. Parts are prefabricated and punched for assembly. The frame is suitably reinforced with cross members to eliminate any sway.

Oven enclosure is built of two thicknesses of 20ga. aluminized sheet panels, bent and formed for strength. Panels are insulated with high temperature 4# density insulation as follows:

DRY OFF OVEN ..... 4" Walls .... 4" Ceiling
DIVIDING WALL ..18 ga Walls .... 4" Ceiling
CURING OVEN ..... 4" Walls .... 4" Ceiling

Panels are tongue and grooved type with punched side and end channels to minimize heat transfer loss. Panels are sheet metal screwed to structural frame and trim.

Conveyor "A" frame supports are provided @ 10'-0" centers minimum.

Safety Equipment:

Protection Controls, Inc. electronic safety Protectifier relay, Honeywell or equal main and blocking valves. Dwyer Inc. gas pressure switches and air flow switches, and Mercoid MS -51R manual reset high limit control.

Ignition:

Honeywell electronic spark generator with Maxon ignitor.

Temperature Control:

Honeywell or equal digital indicating controller with type "J" thermocouple. This operates a modutrol motor which is arranged to provide a modulating flame throughout the burner's range. This will maintain a close differential with the desired temperature at all times.

Air Movement:

Recirculating fan will be Twin City or equal #27 double width, double inlet centrifugal type with 15 H.P. open drip fan cooled motor operating at 24,000 C.F.M. and 1-1/2" s.p. The fan is located inside an insulated chamber on the end of the oven along with the burner.

Exhaust fan:

Curing oven ..... #12 FC 1 H.P. Rated 2400 C.F.M. @ 3/4" s.p.

Burner:

A direct fired Maxon #415 Ovenpak Burner will release 1,650,000 B.T.U.H. on high fire. It is mounted to the insulated chamber on the end of the oven.

Ducts and Baffles:

Air is supplied at the oven floor level by full length 20/22 ga. aluminized steel ducts to provide circulation throughout the oven. Return air intake to the heater unit is at ceiling level. An exhaust duct is provided along the incoming pass of the conveyor.

Control Panel:

A prewired control panel with main disconnect switch, fuse blocks, buzzer alarm, Protection Controls, Inc. or equal electronic flame safety equipment, pushbuttons, pilot lights, Allen Bradley magnetic motor starters and Honeywell digital temperature control are provided in a NEMA 12 panel.

Access Door:

Doors are complete with hinges, door pulls and Brixon or equal safety latches. (1) Personnel access doors is provided in the oven.

Air Seals:

Air seals are provided at the entrance and exit vestibules of the oven. Air seal will be supplied with Twin City or equal # 12FC DWDI forward curve type fan. Fan is rated @ 5,000 C.F.M. @1 1/2" s.p. providing 3,000 F.P.M. slot velocity. Motor is rated 3 H.P.

III. CUSTOM SPRAY BOOTH

We will provide a dual zone dry filter type paint spray booth with general configuration as shown on our proposal drawing C-13991.

Zone 1 will allow operator to paint bottom end of product. Conveyor elevation will decline from this 10'6" elevation down to 6'-0" elevation for Zone 2 which will allow operator to paint top area of product.

Complete booth will include the following:

1 - 30" diameter tubeaxial fan w/2 H.P. motor rated 9,900 C.F.M. @ 1/2" S.P.

30- Paint Arrestors w/ frames and grids.

2 - Fluorescent (4) Tube Fixtures.

IV. NEW OVERHEAD CONVEYOR SYSTEM

We will provide a Rapid Flex or equal conveyor system complete with components and support steel required to conform to the configuration as shown on our proposal drawing C-13991. Please see enclosed brochure for Rapid Flex Conveyor. Components included are as follows:

401..... Lin. Ft. Chain
320..... Lin. Straight Track
13..... 90 degree Horizontal Curves 24" Radius
2..... 45 degree Horizontal Curves 24" Radius
2..... 180 degree Horizontal Curve 24" Radius
3..... 30 degree Upper vertical Curves
3..... 30 degree Lower Vertical Curves
11..... Oven Expansion Joints
2..... Inspection Gates
601..... Pendants
1..... 180 degree Spring Take Up 8'-6" Spread
1..... Automatic Oiler
1..... 750# Drive 2-6 F.P.M. 1 H.P.

V. SYSTEM INSTALLATION

Finishing Systems Corporation (F.S.C.) will as an option furnish all of the necessary materials, field installation, labor and supervision to install the above equipment. All labor rates included herein are based on regular working hours without overtime or premium rates.

WORK INCLUDED:

1. Equipment as listed above.
2. Prewiring of electrical controls and panels as described above.
3. Necessary controls for FM & IRI insurance approval.
4. Field wiring of motors and controls.
5. Field piping of washer to single point connection.

WORK NOT INCLUDED:

1. Any necessary building modifications, cutting and repair of roof openings, pits, etc.
2. All permits or licenses required for the installation of or operation of this equipment except FM & IRI approval.
3. All sales and use taxes if any are required.
4. All utilities to be brought to the equipment's single point connections. Each service is to end with a disconnect or shut off valve as required. Electric service is to be connected to our control panels.
5. Sprinkler work if required.
6. All lighting equipment unless otherwise specified.
7. Work Hangers.
8. Customer to provide clear work area and adequate room to move new equipment into erection location .

9. Gas train vent lines.
10. Fire watch personnel and equipment if required.
11. Customer to provide use of fork lift during erection.
12. Compressed air source for paint equipment.
13. Stacks and weathercaps.

VI. APPROVALS AND CANCELLATIONS

We will make a check out of our equipment with a representative of your company on completion of our work. At such time you will provide us with a written acceptance,
assuming the equipment functions as set forth in this proposal. If adjustments are required, they will be made as rapidly as possible. ANY USE OF THIS EQUIPMENT PRIOR TO YOUR WRITTEN ACCEPTANCE WILL CONSTITUTE FULL APPROVAL OF THE SYSTEM AND/OR ITS COMPONENTS.

Any work performed or materials provided after such time will be at additional charge to the customer.

In the event of cancellation prior to the completed fabrication of any or all items contracted for, the following charges for time and materials will be made:

1. Engineering office time @ $60.00 per hour.
2. Shop labor @ $37.00 per hour.
3. Travel time and expenses at actual reimbursement.
4. Materials at our cost plus freight and handling charges with 25% added for F.S.C. handling.
5. Fabricated items or purchased components which are not returnable will be invoiced to you at our design sales price.

VII. PRICING, TERMS & CONDITIONS

Pricing as outlined is based on furnishing all items as quoted unless otherwise indicated. In the event of changes or deletions, we reserve the right to revise this quotation.

All pricing for equipment is F.O.B. our plant in Fortville, Indiana or shipping points.

PRICE FOR EQUIPMENT AS DESCRIBED... $106,406.00

PRICE FOR INSTALLATION AS DESCRIBED $ 19,180.00

Invoicing Terms Are As Follows:

30% Price Down With Order NET 10 DAYS

60% Progressive Billing of Work Performed Each Month NET 10 DAYS

10% Final Billing NET 30 DAYS after completion.

VIII. DELIVERY

Based on acceptance of this proposal and receipt of your order, we can provide delivery of this equipment in approximately 12-14 weeks from such time.

IX. SUMMARY

Two (2) sets of drawings and data sheets will be provided at the conclusion of this contract.

The prices quoted are based on current cost of materials and labor and are void at our option thirty (30) days from the date of this proposal.

A SERVICE CHARGE WILL BE ADDED ON ALL INVOICES WHICH REMAIN UNPAID BEYOND THE STATED TERMS OF PAYMENT. THE RATE OF THE CHARGE WILL BE 1-1/2%, 18% ANNUAL.

To the best of our interpretation the equipment offered incorporates construction design and safety features in accordance with OSHA regulations. Any discrepancies from individual inspector interpretations will be negotiated for any additional costs that may be incurred. Due to variations in building work area conditions, we cannot predict final sound pressure levels for the area.

If the operation of this equipment is influenced by the lack of fresh air or by vagrant drafts created or caused by other sources, it will be the buyer's responsibility to correct such conditions.

The equipment offered in this proposal does not include any devices or apparatus for air or water pollution control that possibly could be required.

Sincerely,

FINISHING SYSTEMS CORPORATION

R. F. Thrall

Richard F. Thrall, President.

Attachment 2

Composition of Coatings and

Emission Estimates

Coating Composition

Product	Wabash KB-2618	Wabash KB-318
Type	high heat aluminum silicone enamel	high heat black silicone enamel
Curing	air dry	oven baked
Coating density (lb coating/gal coating)	9.01	11.29
Volume percent solids (gal solids/gal coating)	25%	42%
Weight percent solids (lb solids/lb coating)	40%	62%
Solids density (lb solids/gal solids)	14.4	16.7
VOC density (lb VOC/gal VOC)	7.21	7.40
VOC content (lb VOC/gal solids)	21.6	10.2

See attached MSDS's and product information

WABASH PRODUCTS COMPANY

STMAX
THE FINISH THAT LASTS

Phone (812) 232-6097

1600 HULMAN STREET
P.O. Box 3074

TERRE HAUTE, INDIANA 47803

GENERAL INFORMATION

KB-2618 is a high heat resistant silicone based enamel. It is used as a finish coat for the protection of metals exposed to high temperature environments.

It has excellent heat resistance, good flexibility and adhesion along with good thermal shock resistance.

COMPOSITION

Silicone Resin	22%
Aluminum Paste & Pigment	18%
Solvent	60%

* Refer to Material Safety Data Sheet for Hazardous information.

PRODUCT INFORMATION	KB-2618 HIGH HEAT ALUMINUM SILICONE ENAMEL
TYPE OF PAINT	Silicone Based High Heat Resistant Coating
SERVICE LIFE	Below 900° F
COLOR	Silver
WEIGHT PER GALLON	9.01 ± 0.10
SPECIFIC GRAVITY	1.08
NONVOLATILE % BY WEIGHT	40 ± 1
NONVOLATILE % BY VOLUME	25 ± 1
FLASH POINT	45° F
MINIMUM SURFACE PREPARATION	Sandblasted steel or equivalent
THINNER	None required, Xylol if necessary
APPLICATION	Spray
THEORETICAL COVERAGE	393 Square Feet
RECOMMENDED DRY FILM THICKNESS	0.5 ± 0.1 Mils
DRY TIME: SET TO TOUCH	10 - 15 Minutes
: DRY HARD	60 Minutes
COMPATIBILITY WITH OTHER PAINTS	Very Limited

Emission Estimate

	Wabash KB-2618		Wabash KB-318
Number of units coated	977,040		169,920
Volume of coating per unit (gal)	0.0034		0.0100
Mass of coating per unit (lb)	0.0308		0.1129
Percent VOC by weight (lb VOC/lb coating)	60%		38%
Annual VOC emissions (lb/yr)	18,077		7,290
Total annual VOC emissions (lb/yr)		25,367	
Potential emissions (lb/yr)		**55,554**	

Attachment 3

BACT Analysis

BACT Analysis

Arvin North American Automotive
Franklin Plant
December 12, 1991

Economic analysis of control options for this application was based on the estimated 25,367 lb. of VOC per year shown in Attachment 2. Analysis follows the example of the OAQPS Control Cost Manual, with some terms combined to save space. Equipment costs were scaled to 3rd quarter 1991 values using the Marshall & Swift Equipment Cost Index, published monthly in **Chemical Engineering** magazine.

Only thermal oxidation was considered for this application. Catalytic incineration was not considered feasible because of the risk of poisoning the catalyst with the silicone resins to be used. Activated carbon adsorption was not considered because of the possibility that the carbon bed might be fouled by entrained particulate matter in the spray booth exhaust.

Utility costs estimated by the OAQPS procedure neglect the heating value of the VOCs contained in the exhaust air. For this application, it was found that the pollutant concentration is so slight as to make no contribution to combustion.

Control Option #1 - Regenerative Thermal Oxidation

Capital Cost

2 - Salem Industries Model RTO-30-3V and 1 - Model RR-3 regenerative thermal oxidation units	$1,946,000
Instrumentation, taxes, and freight @ 18%	350,000
Purchased Equipment Cost (PEC)	2,296,000
Installation direct costs @ 30% PEC	689,000
Installation indirect costs @ 31% PEC	712,000
Total Capital Cost (TCC)	$3,697,000

Annual Cost

1. Labor	
a. operator (1/2 hr/shft, 500 shft/yr @ $12.00/hr)	$3,000
b. supervisor @ 15% 1a	500
2. Maintenance	
a. labor (1/2 hr/shft, 500 shft/yr @ $14.00/hr)	3,500
b. materials @ 100% 2a	3,500
3. Utilities	
a. electricity (315 kW, 4,000 hr/yr @ $0.065/kWh)	81,900
b. natural gas (5.67 MCF/hr, 4,000 hr/yr @ $4.00/MCF)	90,700
4. Overhead @ 60% (1a+1b+2a)	4,200
5. Administration, property taxes, and insurance @ 4% TCC	147,900
6. Capital recovery @ 10 yr. and 10% (0.1628)	602,000
Total Annual Cost	$937,000
VOC reduction (25,350 lb. generated @ 98% removal)	24,800
Annual cost per pound of VOC removed	$37.78

MATERIAL SAFETY DATA SHEET FOR KB- 318HH HISOL

COMPLIES WITH OSHA STANDARD TITLE 29CFR1910.1200

HEALTH 2*
FLAMMABILITY 2
REACTIVITY
PERSONAL
PROTECTION

FROM: WABASH PRODUCTS CO., TERRE HAUTE, IN
EMERGENCY TELEPHONE 800-424-9300

TO: ARVIN AUTOMOTIVE
FOR: WABASH PART NUMBER KB- 318HH HISOL
DESCRIPTION 3.50 VOC HIHEAT BLACK
TO:

MSDS DATE (YYMMDD) 921218
SEQUENCE # 921218999

**** 1. HAZARDOUS INGREDIENTS ****

COMMON NAME HAZARD TYPE	CAS NUMBER	EXPOSURE LIMITS PPM	 mg/M	LEL %	VAPOR PRES mm Hg @ 20'C
(1) XYLENE FLAMMABLE	1330-20-7	PEL 100 TLV 100		1.00	5.10
(3)HIGH F. NAPHTHA FLAMMABLE	64742-95-6	 TLV 25		.69	NOT SUPPLIED
SOLVESSO 150 FLAMMABLE	64742-94-5	 TLV 100		1.00	NOT SUPPLIED
GLYCOL ETHER P.M. (1) FLAMMABLE	107-98-2	 TLV 100		3.00	10.90
OXO-HEPTYL ACETATE FLAMMABLE	90438-79-2	PEL 50 TLV 50		NOT GIVEN	.80
(1)GLYCOL ETHER DB FLAMMABLE	112-34-5	PEL 25		.84	.10
BUTYL CELLOSOLVE FLAMMABLE	111-76-2	PEL 50 TLV 25		1.09	.90

**** 2. PHYSICAL DATA ****

APPEARANCE IS COLOR BLACK PAINT DENSITY IS 12.4 LBS/GAL
VAPOR DENSITY (X) HEAVIER ( ) LIGHTER THEN AIR
EVAPORATION RATE IS (X) SLOWER ( ) FASTER THAN ETHER
BOILING RANGE FROM 243 TO 446 (DEG F)

**** 3. FIRE AND EXPLOSIVE HAZARD DATA ****

FLASH POINT (°F) CC 80 OSHA CLASS - FLAMMABLE LIQUID - CLASS 1C
UN NUMBER 1993 DOT CLASS - FLAMMABLE LIQUID
LOWER EXPLOSIVE LIMIT (% BY VOLUME IN AIR) - 0.70
EXTINGUISHING MEDIA: Carbon dioxide or Dry Chemicals for small fires.
Foam for large fires.
CAUTION - Closed containers may build explosive pressure from heat.
Vapors are heavier then air and may travel along the ground or may be moved by ventilation and ignited by pilot lights,other flames,sparks heaters,smoking,electric motors,static discharge, or ignition sources at locations distant from material handling point.
NEVER USE WELDING OR CUTTING TOURCH ON OR NEAR DRUM (EVEN EMPTY) because product (or residue) can ignite explosively
SPECIAL FIRE FIGHTING PROCEDURE: cool closed containers with water spray.

HAZARDOUS DECOMPOSITION PRODUCTS: May form toxic materials:, Carbon Dioxide, Carbon Monoxide, Various Hydrocarbons, Etc.

**** 4. REACTIVITY DATA ****

STABILITY (X) STABLE ( ) UNSTABLE
HAZARDOUS POLYMERIZATION (X) WILL NOT OCCURE ( ) MAY OCCURE
HAZARDOUS DECOMPOSITION - FUMES MAY CONTAIN THE HAZARDOUS MATERIALS LISTED ABOVE.

CONDITIONS AND MATERIALS TO BE AVOIDED
Excess heat, sparks, and open flame

Avoid contact with strong oxidizing agents

Decomposition may produce carbon monoxide and/or carbon dioxide.

Avoid extended contact with air or oxygen.

Incomplete combustion will generate highly poisonous carbon monoxide and perhaps other toxic vapors.

Avoid contamination with alkalies.

**** 7. SECTION 313 SUPPLIER NOTIFICATION ****

This product contains the following toxic chemicals subject to the reporting requirements of section 313 of the Emergency Planning and Community Right-To-Know Act of 1986 and of 40 CFR 372:

CAS #	CHEMICAL NAME	% BY WEIGHT
1330-20-7	(1) XYLENE	12.6
68186-91-4	COPPER CHROMITE BLK SPIN	15.1
7727-43-7	BARIUM SULFATE	11.6
64742-95-6	(3)HIGH F. NAPHTHA	1.4
64742-94-5	SOLVESSO 150	1.4
107-98-2	GLYCOL ETHER P.M. (1)	1.5
90438-79-3	OXO-HEPTYL ACETATE	6.5
112-34-5	(1)GLYCOL ETHER DB	2.0
111-76-2	BUTYL CELLOSOLVE	2.0

This information must be included in all MSDSs that are copied and distributed for this material.

**** 8. FIRST AID AND EMERGENCY PROCEDURES ****

INHALATION: Remove to fresh air immeadiately. If breathing has stopped, give artificial respiration. Keep warm and quiet. Get medical attention immeadiately.

EYE Flush with large amounts of water, lifting upper and lower lids occasionally. Continue for at least 15 minutes. Get medical attention.

SKIN: Throughly wash exposed area with soap and water. Remove contaminated clothing. Launder contaminated clothing before re-use.

SWALLOWED: Do NOT induce vomiting, keep person warm, quiet, and get medical attention. Aspiration of material into the lungs due to vomiting can cause chemical pneumonitis which can be fatal.

**** 9. SPECIAL PROTECTION INFORMATION ****

RESPIRATORY PROTECTION: Use self contained breathing apparatus where concentrations may be above TLV limits. Below TLV limits, use a NIOSH approved vapor respirator.

VENTILATION: Local exhaust must be sufficient to keep airborne vapor concentration below the TLV limit.

PROTECTIVE GLOVES: Chemical resistant gloves.

EYE PROTECTION: Safety glasses with side shields.

OTHER PROTECTIVE EQUIPMENT: Eye bath and safety shower. To prevent repeated or prolonged skin contact, wear impervious clothing and boots.

ARVIN
NORTH AMERICAN AUTOMOTIVE

RECEIVED

JAN 31 1994

State Of Indiana
Department of Environmental Management
Office Of Air Management

addl info
CP# 005-3455

January 27, 1994

By Certified Mail

Ms. Peggy Flickinger
Office of Air Management
Indiana Department of Environmental Management
100 North Senate Avenue
Indianapolis, Indiana 46206-6015

Subject: Permit Application Revision
Arvin NAA - Gladstone Plant
Columbus, Indiana

Dear Ms. Flickinger:

Information requested in your letter of December 28, 1993 is attached. I have also attached some pages revised based on information just given me.

Please contact me at (812) 379-3575 if there are any questions.

Sincerely,

Douglas A. Logan, P.E.
Director of Environmental Affairs and Safety

attachments

1531 13th Street, Box Number 3002, Columbus, Indiana 47202 Phone: 812/379-3000 a division of Arvin Industries, Inc.

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

We make Indiana a cleaner, healthier place to live

Evan Bayh
Governor
Kathy Prosser
Commissioner

100 North Senate Avenue
P.O. Box 6015
Indianapolis, Indiana 46206-6015
Telephone 317-232-8603
Environmental Helpline 1-800-451-6027

December 28, 1993

CERTIFIED MAIL

OFFICE OF AIR MANAGEMENT

Arvin North American
P.O. Box 3002
Columbus, IN 47202

Attention: Douglas A. Logan, Director of Environmental Affairs and Safety

Re: Permit Application for Construction
Permit No. 005-3455

Ladies and Gentlemen,

Your application for a parts washers, paint booths and two ovens to be located at Anvin North American Automotive in Columbus, Indiana was received on December 27, 1993. Sufficient data is not contained to act on this application. A preliminary review indicates the need for the following:

1. Please submit Form B.
2. Please submit Material Safety Data Sheet (MSDS).
3. Please include any solvents utilized in the paint booths in Form W-1.
4. Please submit a flow diagram.

Your written response to this request for additional information must be received within 30 days of your receipt of this letter. If no written response or schedule of when this information will be provided is received within 30 days, your permit may be denied as a result of the incomplete application pursuant to 326 IAC 2-1-3 (f) (1).

Please contact me if you have any questions concerning this letter at the above address or via phone 317/233-6875. Please attach a copy of my letter to your response. Further review on this application can not be done until a response is received. Further questions may arise as the review proceeds.

Sincerely,

Peggy Flickinger

Peggy Flickinger, Scientist
Office of Air Management

PAF

Enclosure

STATE OF INDIANA
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR MANAGEMENT

Plant Layout and GEP Stack Height Information Sheet

Company Name ARVIN NAA - GLADSTONE PLANT REVISED 27 JAN 94

This permit application must include a plant layout(s) showing the following information:

1. Drawings, several, if necessary, but each one must be to scale, with actual scale shown. All dimensions must be clearly indicated. This includes building heights, widths, and lengths, and their distance relationship with the property line. It should also indicate where fences or other access-limiting features exist.

2. The layout must show the location of all emission points (exhaust stacks, roof monitors, control devices, or process vents, etc.). Identify each of these emission points under "Stack Identification" on the appropriate forms.

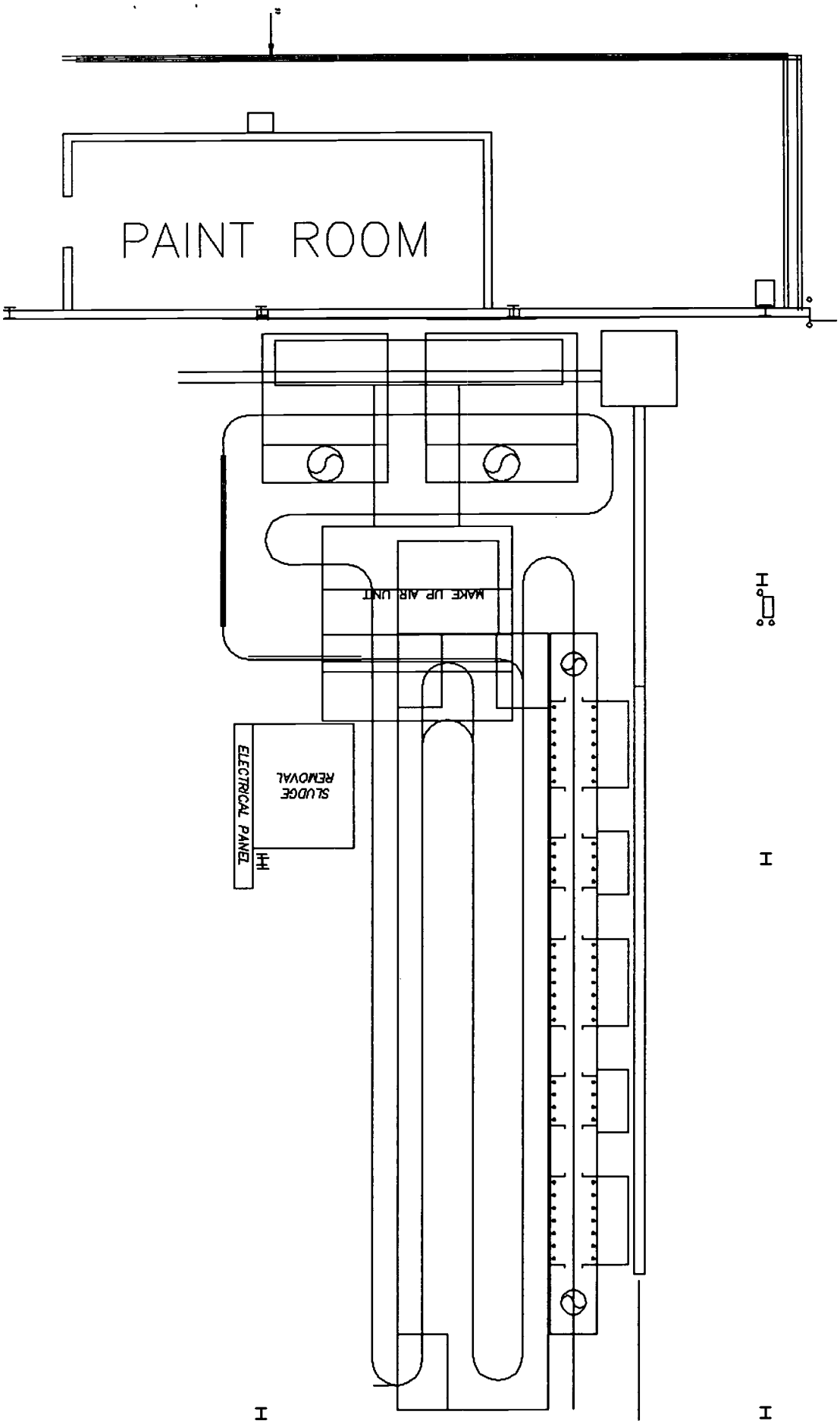
3. The layout(s) must show all roadways and description of roadway surfaces.

4. The layout(s) must include a compass pointing north.

SEE ATTACHED

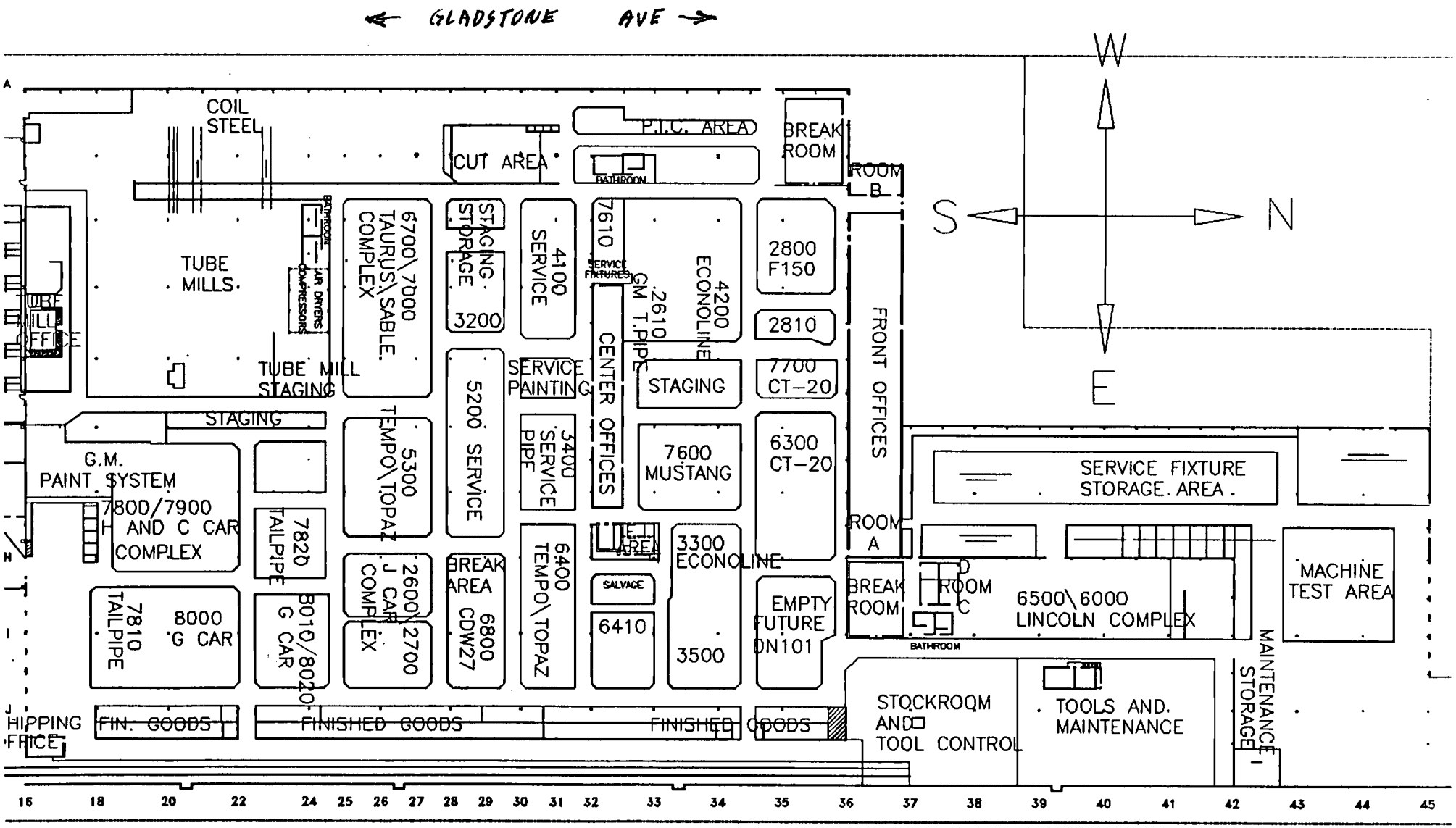
FORM B

ARVIN NAA - GLADSTONE



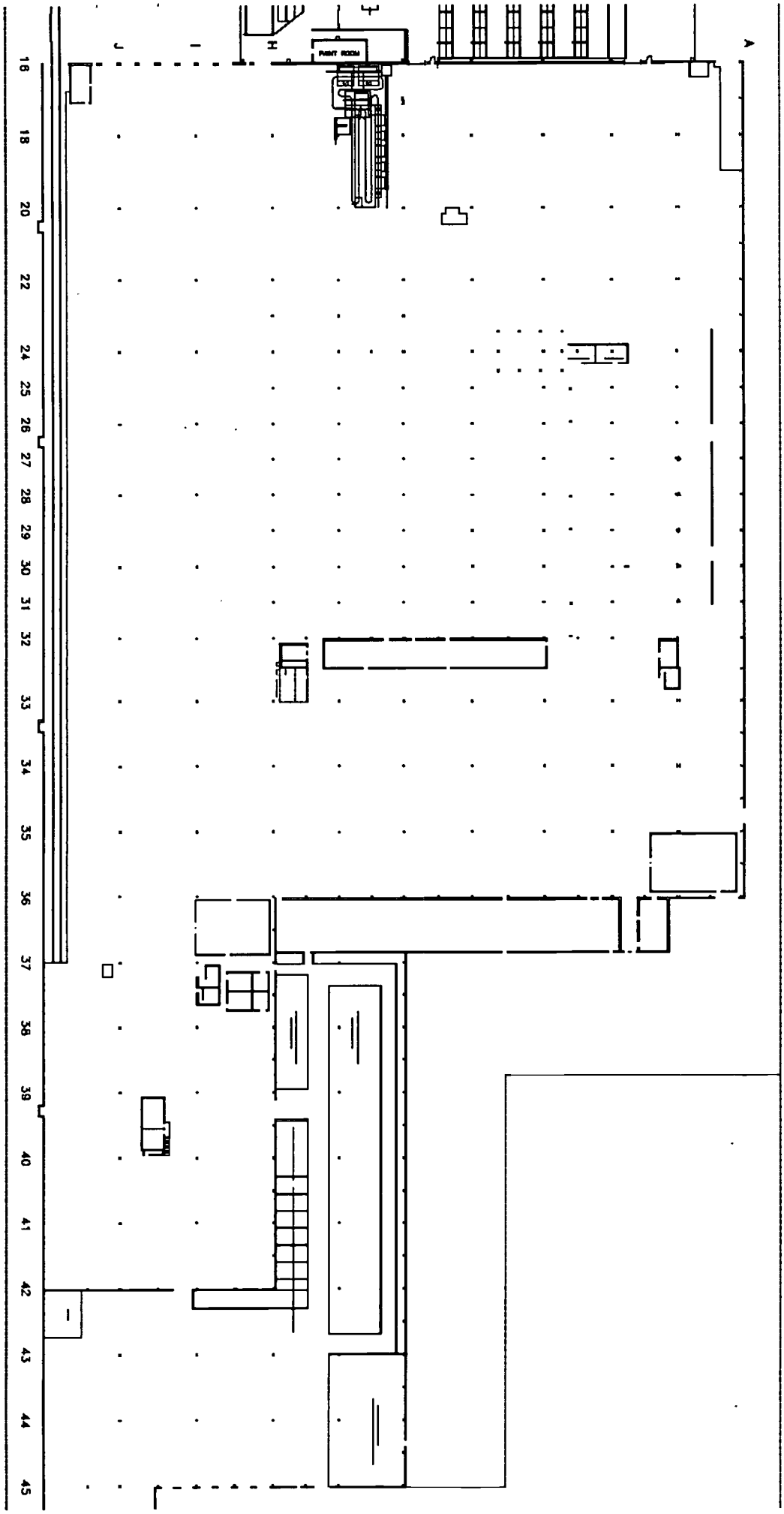
3 of 6
Form B
Arvin NAA · Gladstone

GLADSTONE PLANT – JANUARY, 1994



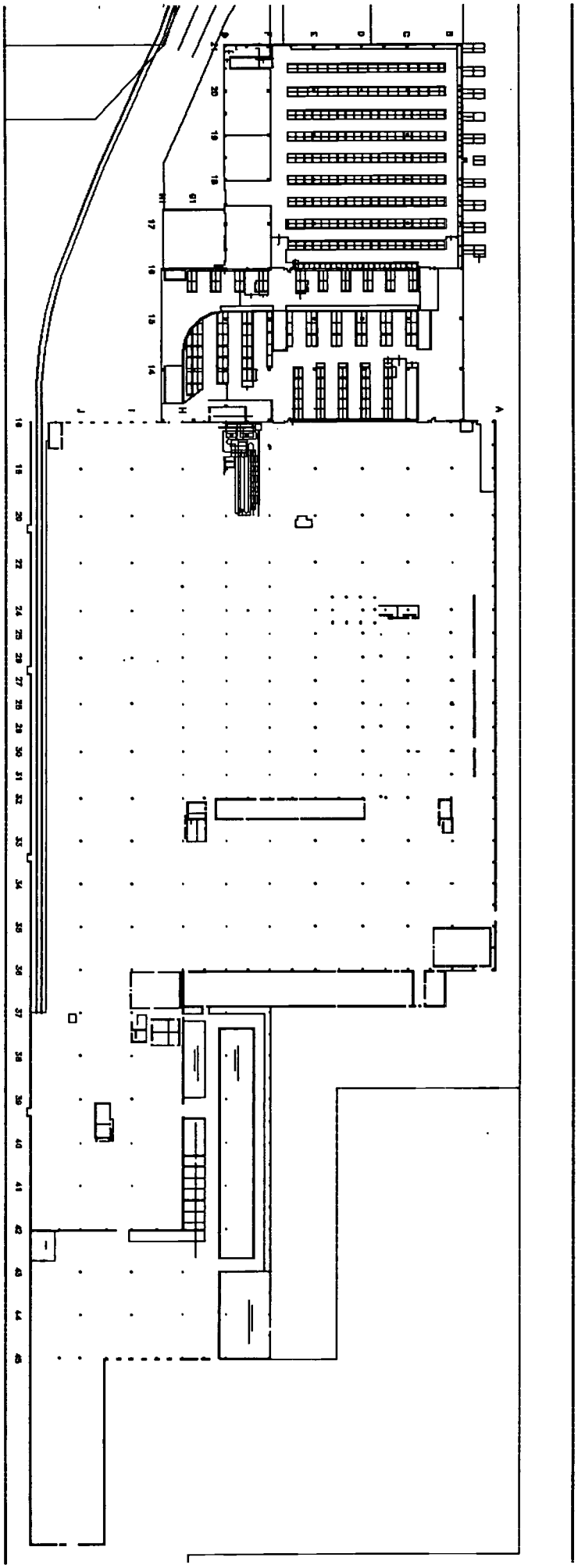
FORM B

ARVIN NAA - GLADSTONE

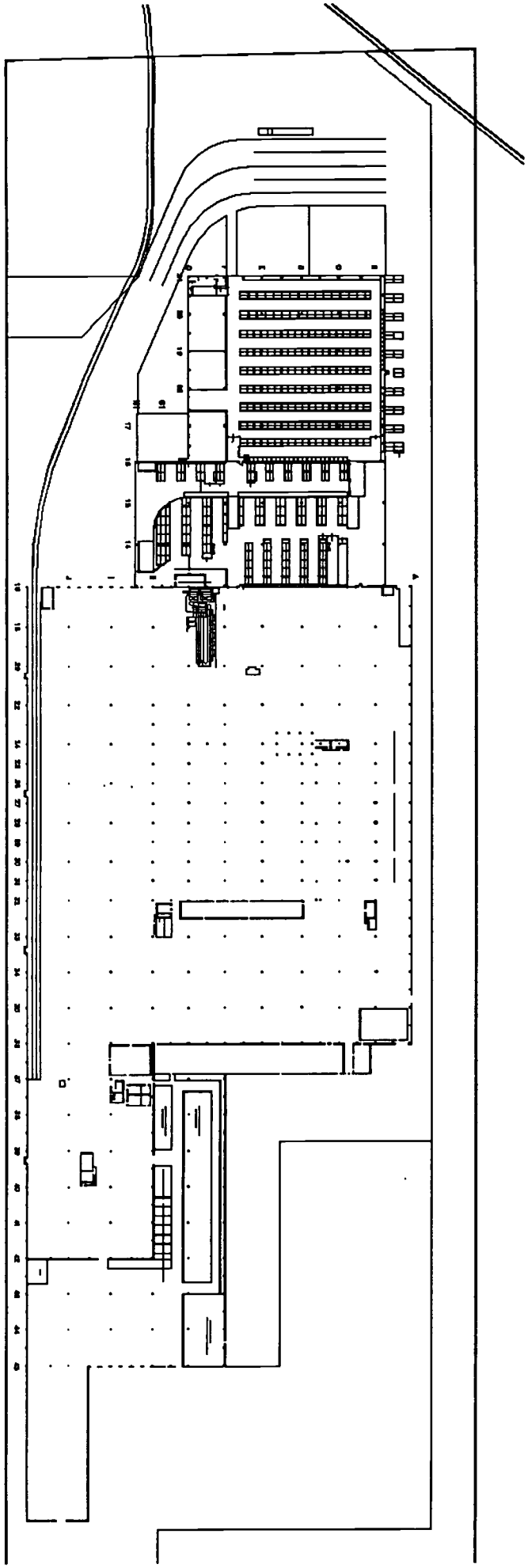


FORM B

ARVIN NAA - GLADSTONE



R



6 OF 6

FORM B

ARVIN NAA- GLADSTONE

ARVIN-NAA-GLADSTONE
REVISED 27 JAN 94

FORM E

STATE OF INDIANA
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR MANAGEMENT

Process Information

Not Applicable _____

Company Name ARVIN NAA - GLADSTONE PLANT

Products Produced MOTOR VEHICLE EXHAUST ASSEMBLIES

Raw Material Rate (use an additional sheet if needed)

TYPE MATERIAL	RATE (LB/HR)
MUFFLER ASSEMBLIES	2340
KB 318 HS HH COATING	18

Finished Product

Pounds/Hour Maximum 2360 Normal _____

Process and Control Equipment (Use an additional sheet if needed)
Process Identification:

Type of Control _____
Efficiency _____
For Dry Collectors, Tons/year Collected _____

STACK DATA

Stack Identification C & H CAR BOOTH

Height (ft. above ground) 35

Diameter (ft. inside) 2

Gas Discharge Temperature (Deg F) AMBIENT

Gas Flow Rate (acfm) 42,700 TOTAL

Operation Schedule

Hours/Day 16
Days/Week 5
Weeks/Year 50

ARVIN NAA-GLADSTONE
REVISED 27 JAN 94

STATE OF INDIANA
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR MANAGEMENT

FORM F

Flow Diagram

Not Applicable _____

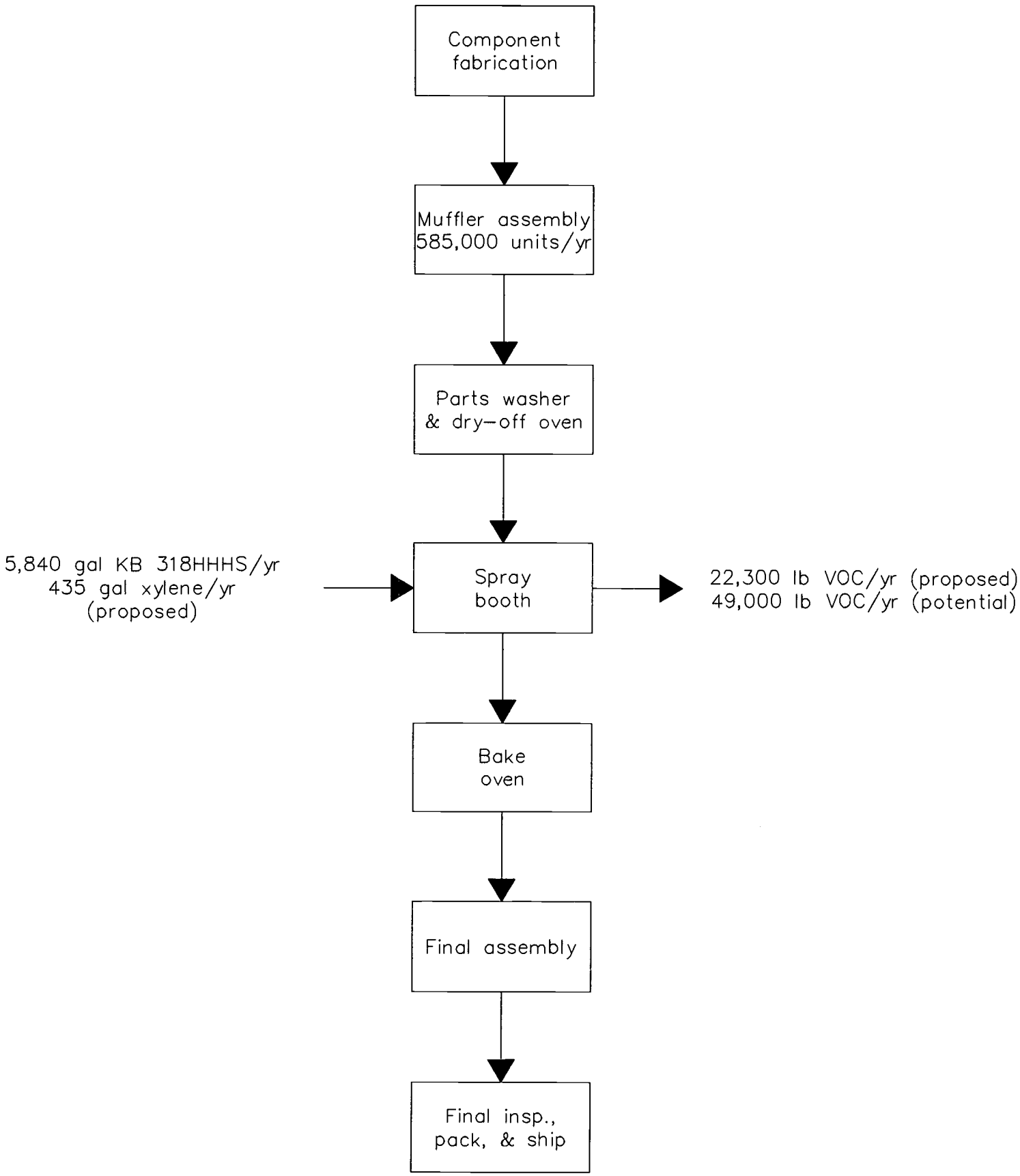
Company Name ARVIN NAA GLADSTONE PLANT

This permit application must include a simple flow diagram of your operation from raw materials input to the finished products. Show points of emission including stacks. Show location of air pollution control equipment, the process it controls, and removal efficiency. State the maximum hourly capacity of each step of the operation.

SEE ATTACHED

Process Flow Diagram

Arvin NAA
Gladstone Plant
Revision
January 27, 1994



STATE OF INDIANA
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR MANAGEMENT

SURFACE COATING AND ACCESSORY SOLVENTS

Company Name ARVIN NAA - GLADSTONE PLANT

REVISED 27 JAN 94

1 Material (Coatings, Solvents, Etc.)	2 Identification Number	3 Material Density Lb / Gal	4 Weight % Volatiles (Water and Organics)	5 Weight % Water	6 Volume % Water	7 Volume % Non-volatiles (Solids)	8 Gallons of Material* Required for One Production Unit Gal / Production Unit	9 Maximum Number of Production Units per Hour	10 Actual** Usage Gal/Yr	11 Process or Booth I. D.
COATING	KB 918 HSHH	12.35	28	0	0	52	0.01	146		C&H CAR
SOLVENT	XYLENES	7.3	100	0	0	0	SEE NOTE			C&H CAR

* If different types or sizes of units are coated in the same paint booth with the same coating, this amount should be based on the production unit requiring the most gallons per hour. Gallons per hour = Column 8 x Column 9. If different coatings are used, they must be listed as a separate material.

** Complete this column for operation permit renewals only.

NOTE: ABOUT 0.5 GAL XYLENE USED AT END OF SHIFT FOR CLEANUP

Attach a Material Safety Data Sheet (MSDS) for each material listed. DO NOT SEND THE ENTIRE MSDS. The required sections are: Section I (Product Identification), Section II (Composition Information), and Section III (Physical Property Information).

Density, Weight % Volatiles, and Weight % Water are determined by methods listed in 326 IAC 8-1-4

Form W-1

Revised 7-16-91

ARVIN NAA - GLADSTONE
REVISED 27 JAN 94

FORM Y4
7-29-91

STATE OF INDIANA
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR MANAGEMENT

Air Toxic Pollutants

X	CAS NUMBER	CHEMICAL NAME	EMISSION POINTS	MAXIMUM EMISSION RATE (POUNDS/HR)
___	00088062	2,4,6-Trichlorophenol		
___	00121448	Triethylamine		
___	01582098	Trifluralin		
___	00540841	2,2,4-Trimethylpentane		
___	00108054	Vinyl acetate		
___	00593602	Vinyl bromide		
___	00075014	Vinyl Chloride		
___	00075354	Vinylidene chloride (1,1-Dichloroethylene)		
X	01330207	Xylenes (isomers and mixture)	C8H CAR BOOTH	8.7
___	00095476	o-Xylenes		
___	00108383	m-Xylenes		
___	00106423	p-Xylenes		
___		Antimony Compounds		
___		Arsenic Compounds (inorganic including arsine)		
___		Beryllium Compounds		
___		Cadmium Compounds		
___		Chromium Compounds		
___		Cobalt Compounds		
___		Coke Oven Emissions		
___		Cyanide Compounds[1]		
___		Glycol ethers[2]		
___		Lead Compounds		
___		Manganese Compounds		
___		Mercury Compounds		
___		Mineral Fibers[3]		
___		Nickel Compounds		
___		Polycyclic Organic Matter[4]		
___		Radionuclides (Including Radon)[5]		
___		Selenium Compounds		
___		**NONE OF THE COMPOUNDS LISTED ON FORMS Y1 THROUGH Y4 WILL BE EMITTED FROM THE EQUIPMENT LISTED IN THIS APPLICATION.**		

NOTE: FOR ALL LISTINGS ABOVE WHICH CONTAIN THE WORD "COMPOUND" AND FOR GLYCOL ETHERS THESE LISTINGS ARE DEFINED AS INCLUDING ANY UNIQUE CHEMICAL SUBSTANCE THAT CONTAINS THE NAMED CHEMICAL AS PART OF THAT CHEMICAL'S INFRASTRUCTURE.

1 X'CN where X=H' or any other group where a formal dissociation may occur. For example KCN or $Ca(CN)_2$

2 includes mono- and di- ethers of ethylene glycol, diethylene glycol, and triethylene glycol R-(OCH2CH2)n-OR' where: n= 1, 2, or 3; R= alkyl or aryl groups; and R'= R, H, or groups which, when removed, yield glycol ethers with the structure R-(OCH2CH2)n-OH. Polymers are excluded from the glycol category.

3 includes mineral fiber emissions from facilities manufacturing or processing glass, rock, or slag fibers (or other mineral derived fibers) of average diameter 1 micrometer or less.

4 includes organic compounds with more than one benzene ring, and which have a boiling point greater than or equal to 100 degrees Celsius.

5 a type of atom which spontaneously undergoes radioactive decay.

DO NOT SEND ENTIRE MATERIAL SAFETY DATA SHEETS (MSDS). The required sections are: Section I (Product Identification), Section II (Composition Information), and Section III (Physical Property Information).

MATERIAL SAFETY DATA SHEET FOR KB- 809HSHH

COMPLIES WITH OSHA STANDARD TITLE 29CFR1910.1200

HEALTH 2*
FLAMMABILITY 2
REACTIVITY
PERSONAL PROTECTION

FROM: WABASH PRODUCTS CO., TERRE HAUTE, IN
EMERGENCY TELEPHONE 800-424-9300

TO: ARVIN AUTOMOTIVE
FOR: WABASH PART NUMBER KB- 809HSHH
DESCRIPTION 3.5 VOC BLACK HI HEAT
TO:

MSDS DATE (YYMMDD) 931123
SEQUENCE # 931123999

**** 1. HAZARDOUS INGREDIENTS ****

COMMON NAME / HAZARD TYPE	CAS NUMBER	EXPOSURE LIMITS	PPM	mg/M	LEL %	VAPOR PRES mm Hg @ 20'C
XYLENE FLAMMABLE	NOT SUPPLIED	PEL TLV	100 100		1.00	5.10
(3)POLYSOLVE DB FLAMMABLE	112-34-5	PEL	25		.84	.10
(3)HIGH F. NAPHTHA FLAMMABLE	64742-95-6	TLV	25		.69	NOT SUPPLIED
BUTYL CARBITOL IRRITANT	112-34-5	NOT SUPPLIED			NOT GIVEN	5.00

**** 2. PHYSICAL DATA ****

APPEARANCE IS COLOR BLACK L/ PAINT DENSITY IS 11.7 LBS/GAL
VAPOR DENSITY (X) HEAVIER ( ) LIGHTER THEN AIR
EVAPORATION RATE IS (X) SLOWER ( ) FASTER THAN ETHER
BOILING RANGE FROM 200 TO 500 (DEG F)

**** 3. FIRE AND EXPLOSIVE HAZARD DATA ****

FLASH POINT ('F) CC 80 OSHA CLASS - FLAMMABLE LIQUID - CLASS 1C
UN NUMBER 1993 DOT CLASS - FLAMMABLE LIQUID
LOWER EXPLOSIVE LIMIT (% BY VOLUME IN AIR) - 0.70
EXTINGUISHING MEDIA: Carbon dioxide or Dry Chemicals for small fires.
Foam for large fires.
CAUTION - Closed containers may build explosive pressure from heat.
Vapors are heavier then air and may travel along the ground or may be moved by ventilation and ignited by pilot lights,other flames,sparks heaters,smoking,electric motors,static discharge, or ignition sources at locations distant from material handling point.
NEVER USE WELDING OR CUTTING TOURCH ON OR NEAR DRUM (EVEN EMPTY) because product (or residue) can ignite explosively
SPECIAL FIRE FIGHTING PROCEDURE: cool closed containers with water spray.

HAZARDOUS DECOMPOSITION PRODUCTS: May form toxic materials:, Carbon Dioxide, Carbon Monoxide, Various Hydrocarbons, Etc.

**** 7. SECTION 313 SUPPLIER NOTIFICATION ****

This product contains the following toxic chemicals subject to the reporting requirements of section 313 of the Emergency Planning and Community Right-To-Know Act of 1986 and of 40 CFR 372:

CAS #	CHEMICAL NAME	% BY WEIGHT
NOT SUPPLIED	XYLENE	22.5
68186-91-4	COPPER CHROMITE BLK SPIN	12.6
7727-43-7	BARIUM SULFATE	8.2
112-34-5	(3)POLYSOLVE DB	1.8
64742-95-6	(3)HIGH F. NAPHTHA	3.2
112-34-5	BUTYL CARBITOL	1.8

This information must be included in all MSDSs that are copied and distributed for this material.

**** 8. FIRST AID AND EMERGENCY PROCEDURES ****

INHALATION: Remove to fresh air immeadiately. If breathing has stopped, give artificial respiration. Keep warm and quiet. Get medical attention immeadiately.
EYE Flush with large amounts of water, lifting upper and lower lids occasionally. Continue for at least 15 minutes. Get medical attention.
SKIN: Throughly wash exposed area with soap and water. Remove contominate clothing. Launder contaminated clothing before re-use.
SWALLOWED: Do NOT induce vomiting, Keep person warm, quiet, and get medico attention. Aspiration of material into the lungs due to vomiting can cause chemical pneumonitis which can be fatal.

**** 9. SPECIAL PROTECTION INFORMATION ****

RESPIRATORY PROTECTION: Use self contained breathing apparatus where concentrations may be above TLV limits. Below TLV limits, use a NIOSH approved vapor respirator.
VENTILATION: Local exhaust must be sufficient to keep airborne vapor concen tration below the TLV limit.
PROTECTIVE GLOVES: Chemical resistant gloves.
EYE PROTECTION: Safety glasses with side shields.
OTHER PROTECTIVE EQUIPMENT: Eye bath and safety shower. To prevent repeated or prolonged skin contact, wear impervious clothing and boots.