

Mr. Joseph Meszaros
TRW Automotive, Inc.
P.O. Box 60
Lafayette, IN 47902

Re: Registered Construction and Operation Status,
157-12724-00065

Dear Mr. Meszaros:

The application from TRW Automotive, Inc., received on September 18, 2000, has been reviewed. Based on the data submitted and the provisions in 326 IAC 2-5.5, it has been determined that the following steering systems manufacturing operation, to be located at 800 Heath Street, Lafayette, Indiana, is classified as registered:

- (a) Two (2) natural gas-fired drying ovens, with a maximum capacity of 1.0 mmBtu/hr each and exhaust to stacks designated as c3 and pc3.
- (b) Two (2) natural gas-fired paint curing ovens, with a maximum capacity of 1.6 mmBtu/hr each and exhaust to stacks designated as c5 and pc5.
- (c) Two (2) paint booths, designated as "Columns" and "Plant Central", with a maximum paint usage of 0.4825 gallons per hour per booth, and exhaust to stacks designated as c4 and pc4.
- (d) One (1) pneumatic shot blast units, designated as bb1, with a maximum throughput of 35 pounds per hour, controlled by one (1) baghouse and exhausts inside the building.
- (e) One (1) HVLP spray paint booth, with a maximum paint usage rate of 0.744 gallons per hour, PM controlled by a baghouse designated as rpb #1, and exhausts to a stack.
- (f) Three (3) natural gas-fired washer parts dryers, with a maximum heat input capacity of 0.15 mmBtu/hr each and exhaust to stacks designated as r1-r3.
- (g) Two (2) natural gas-fired boilers, with a maximum heat input capacity of 8.4 mmBtu/hr each and exhaust to stacks designated as NGB#1 and
- (h) Two (2) alkaline part washers, with a maximum solvent usage rate of 0.5 pounds per hour per unit and exhaust to the atmosphere.
- (i) Two (2) MIG welding stations, designated as MW1 and MW2, with a maximum wire consumption rate of 0.75 pounds per hour per unit and exhaust to a stack designated as MW-1.
- (j) Six (6) MIG welding stations, designated as MW3-MW6, MW10 and MW11, with a maximum wire consumption rate of 0.72 pounds per hour per unit and exhaust inside the building.
- (k) Two (2) MIG welding stations, designated as MW7 and MW 8, with a maximum wire

consumption rate of 0.67 pounds per hour per unit and exhaust inside the building.

- (l) One (1) MIG welding station, designated as MW9, with a maximum wire consumption rate of 0.022 pounds per hour and exhausts inside the building.
- (m) One (1) stick welding station, designated as SW1, with a maximum rod consumption rate of 0.00012 pounds per hour and exhausts inside the building.
- (n) One (1) lapping machine, designated as LM1, with a maximum fluid usage rate of 0.13 pounds per hour and exhausts inside the building.
- (o) One (1) belt fabric filter, designated as BFF1, with a maximum fluid usage rate of 0.14 pounds per hour and exhausts inside the building.
- (p) One (1) CNC internal CAM grinder, designated as C1CG1, with a maximum coolant usage rate of 0.007 pounds per hour and exhausts to a stack designated as C1CG1.
- (q) One (1) parts washer, designated as PW1, with a maximum solvent usage rate of 0.04 pounds per hour and exhausts inside the building.
- (r) One (1) Busluy grinder, designated as BG1, with a maximum oil usage rate of 0.02 pounds per hour and exhausts inside the building.

The following conditions shall be applicable:

1. Pursuant to 326 IAC 5-1-2 (Opacity Limitations) except as provided in 326 IAC 5-1-3 (Temporary Exemptions), opacity shall meet the following:
 - (a) Opacity shall not exceed an average of forty percent (40%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.
 - (b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of 15 minutes (60 readings) in a 6-hour period as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor in a six (6) hour period.
2. Pursuant to 326 IAC 6-3-2 (Process Operations), the particulate matter (PM) from the two (2) paint booths (Columns and Plant Central) shall be limited by the following:

Interpolation and extrapolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$$E = 4.10 P^{0.67} \quad \text{where } E = \text{rate of emission in pounds per hour and} \\ P = \text{process weight rate in tons per hour}$$

The panel filters shall be in operation at all times the paint booths are in operation, in order to comply with this limit.

3. Pursuant to 326 IAC 8-2-9 (Miscellaneous Metal Coating Operations), the volatile organic compound (VOC) content of coating delivered to the applicator at the spray booths designated as "Columns" and "Plant Central", shall be limited to 3.0 pounds of VOCs per gallon of coating less water, for forced warm air dried coatings above 194 °F.

Solvent sprayed from application equipment during cleanup or color changes shall be

directed into containers. Such containers shall be closed as soon as such solvent spraying is complete, and the waste solvent shall be disposed of in such a manner that evaporation is minimized.

4. Pursuant to 326 IAC 6-3-2 (Process Operations), the particulate matter (PM) from the pneumatic shot blast unit shall be limited by the following:

Interpolation and extrapolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$$E = 4.10 P^{0.67} \quad \text{where } E = \text{rate of emission in pounds per hour and} \\ P = \text{process weight rate in tons per hour}$$

$$E = 4.10 * (46.88 \text{ lb/hr} * 1 \text{ ton}/2000 \text{ lb})^{0.67} = 0.332 \text{ lb/hr.}$$

The baghouse shall be in operation at all times the shot blast unit is in operation, in order to comply with this limit.

5. Pursuant to 326 IAC 6-3-2 (Process Operations), the particulate matter (PM) from the paint booth designated as rpb #1 shall be limited by the following:

Interpolation and extrapolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$$E = 4.10 P^{0.67} \quad \text{where } E = \text{rate of emission in pounds per hour and} \\ P = \text{process weight rate in tons per hour}$$

The filters shall be in operation at all times the paint booth is in operation, in order to comply with this limit.

6. Pursuant to 326 IAC 6-2-4 (Particulate Matter Emission limitations for sources of indirect heating), particulate emissions from indirect heating facilities constructed after September 21, 1983 shall be limited by the following equation:

$$Pt \leq \frac{1.09}{Q^{0.26}}$$

Where Pt = Pounds of particulate matter emitted per million Btu (lb/mmBtu) heat input.

Q = Total source maximum operating capacity rating in million Btu per hour (mmBtu/hr) heat input. The maximum operating capacity rating is defined as the maximum capacity at which the facility is operated or the nameplate capacity, whichever is specified in the facility's permit application, except when some lower capacity is contained in the facility's operation permit; in which case, the capacity specified in the operation permit shall be used.

For Q less than 10 mmBtu/hr, Pt shall not exceed 0.6. For Q greater than or equal to 10,000

mmBtu/hr, Pt shall not exceed 0.1. Figure 2 may be used to estimate allowable emissions.

Therefore, $Pt = 1.09/(16.8^{0.26}) = 0.52 \text{ lb/mmBtu}$.

7. Pursuant to 326 IAC 6-3-2(c), the allowable particulate matter emissions rate from any process not already regulated by 326 IAC 6-1 or any New Source Performance Standard, and which has a maximum process weight rate less than 100 pounds per hour shall not exceed 0.551 pounds per hour. Therefore, the welding operations shall not exceed 0.551 pounds per hour per unit, based on a maximum process weight of less than 100 pounds per hour per unit.
8. Pursuant to 326 8-3-2 (Cold Cleaner Operation), the owner or operator of a cold cleaning facility shall:
 - (a) equip the cleaner with a cover;
 - (b) equip the cleaner with a facility for draining cleaned parts;
 - (c) close the degreaser cover whenever parts are not being handled in the cleaner;
 - (d) drain cleaned parts for at least fifteen (15) seconds or until dripping ceases;
 - (e) provide a permanent, conspicuous label summarizing the operating requirements;
 - (f) store waste solvent only in covered containers and not dispose of waste solvent or transfer it to another party, in such a manner that greater than twenty percent (20%) of the waste solvent (by weight) can evaporate into the atmosphere.
9. Pursuant to 326 IAC 8-3-5 (Cold Cleaner Degreaser Operation and Control),
 - (a) the owner or operator of a cold cleaner degreaser facility shall ensure that the following control equipment requirements are met:
 - (1) Equip the degreaser with a cover. The cover must be designed so that it can be easily operated with one (1) hand if:
 - (A) the solvent volatility is greater than two (2) kiloPascals (fifteen (15) millimeters of mercury or three-tenths (0.3) pounds per square inch) measured at thirty-eight degrees Celsius (38EC) (one hundred degrees Fahrenheit (100EF));
 - (B) the solvent is agitated; or
 - (C) the solvent is heated.
 - (2) Equip the degreaser with a facility for draining cleaned articles. If the solvent volatility is greater than four and three-tenths (4.3) kiloPascals (thirty-two (32) millimeters of mercury or six-tenths (0.6) pounds per square inch) measured at thirty-eight degrees Celsius (38EC) (one hundred degrees Fahrenheit (100EF)), then the drainage facility must be internal such that articles are enclosed under the cover while draining. The drainage facility may be external for applications where an internal type cannot fit into the cleaning system.

- (3) Provide a permanent, conspicuous label which lists the operating requirements outlined in subsection (b).
 - (4) The solvent spray, if used, must be a solid, fluid stream and shall be applied at a pressure which does not cause excessive splashing.
 - (5) Equip the degreaser with one (1) of the following control devices if the solvent volatility is greater than four and three-tenths (4.3) kiloPascals (thirty-two (32) millimeters of mercury or six-tenths (0.6) pounds per square inch) measured at thirty-eight degrees Celsius (38EC) (one hundred degrees Fahrenheit (100EF)), or if the solvent is heated to a temperature greater than forty-eight and nine-tenths degrees Celsius (48.9EC) (one hundred twenty degrees Fahrenheit (120EF)):
 - (A) A freeboard that attains a freeboard ratio of seventy-five hundredths (0.75) or greater.
 - (B) A water cover when solvent used is insoluble in, and heavier than, water.
 - (C) Other systems of demonstrated equivalent control such as a refrigerated chiller or carbon adsorption. Such systems shall be submitted to the U.S. EPA as a SIP revision.
- (b) the owner or operator of a cold cleaning facility shall ensure that the following operating requirements are met:
- (1) Close the cover whenever articles are not being handled in the degreaser.
 - (2) Drain cleaned articles for at least fifteen (15) seconds or until dripping ceases.
 - (3) Store waste solvent only in covered containers and prohibit the disposal or transfer of waste solvent in any manner in which greater than twenty percent (20%) of the waste solvent by weight could evaporate.

This registration is registration renewal issued to this source. The source may operate according to 326 IAC 2-5.5.

An authorized individual shall provide an annual notice to the Office of Air Management that the source is in operation and in compliance with this registration pursuant to 326 IAC 2-5.5-4(a)(3). The annual notice shall be submitted to:

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

no later than March 1 of each year, with the annual notice being submitted in the format attached.

Any change or modification which may increase potential to emit of VOC to fifteen (15) pounds per day or more from the paint booth designated as rpb#1, shall cause these units to be subject to 326 IAC 8-2-9, and shall require approval from IDEM, OAM prior to making the change.

An application or notification shall be submitted in accordance with 326 IAC 2 to the Office of Air Management (OAM) if the source proposes to construct new emission units, modify existing emission units, or otherwise modify the source.

Sincerely,

Paul Dubenetzky, Chief
Permits Branch
Office of Air Management

NLJ

cc: File - Tippecanoe County
Tippecanoe County Health Department
Air Compliance - Eric Courtright
Permit Tracking - Janet Mobley
Technical Support and Modeling - Michele Boner
Compliance Data Section - Karen Nowak

Registration Annual Notification

This form should be used to comply with the notification requirements under 326 IAC 2-5.5-4(a)(3)

Company Name:	TRW Automotive, Inc.
Address:	800 Heath Street
City:	Lafayette
Authorized individual:	Mr. Joseph L. Meszaros
Phone #:	765-429-1697
Registration #:	157-12724-00065

I hereby certify that **TRW Automotive, Inc.** is still in operation and is in compliance with the requirements of Registration **157-12724-00065**.

Name (typed):
Title:
Signature:
Date:

Indiana Department of Environmental Management Office of Air Management

Technical Support Document (TSD) for a Registration

Source Background and Description

Source Name: TRW Automotive, Inc.
Source Location: 800 Heath Street, Lafayette, Indiana 47902
County: Tippecanoe
SIC Code: 3714
Operation Permit No.: 157-12724-00065
Permit Reviewer: Nysa L. James

The Office of Air Management (OAM) has reviewed an application from TRW Automotive, Inc. relating to the construction and operation of steering systems manufacturing operation.

Permitted Emission Units and Pollution Control Equipment

The source consists of the following permitted emission units and pollution control devices:

- (a) Two (2) natural gas-fired drying ovens, with a maximum capacity of 1.0 mmBtu/hr each and exhaust to stacks designated as c3 and pc3.
- (b) Two (2) natural gas-fired paint curing ovens, with a maximum capacity of 1.6 mmBtu/hr each and exhaust to stacks designated as c5 and pc5.
- (c) Two (2) paint booths, designated as "Columns" and "Plant Central", with a maximum paint usage of 0.4825 gallons per hour per booth, and exhaust to stacks designated as c4 and pc4.
- (d) One (1) pneumatic shot blast units, designated as bb1, with a maximum throughput of 35 pounds per hour, controlled by one (1) baghouse and exhausts inside the building.
- (e) One (1) HVLP spray paint booth, with a maximum paint usage rate of 0.744 gallons per hour, PM controlled by a baghouse designated as rpb #1, and exhausts to a stack.
- (f) Three (3) natural gas-fired washer parts dryers, with a maximum heat input capacity of 0.15 mmBtu/hr each and exhaust to stacks designated as r1-r3.
- (g) Two (2) natural gas-fired boilers, with a maximum heat input capacity of 8.4 mmBtu/hr each and exhaust to stacks designated as NGB#1 and
- (h) Two (2) alkaline part washers, with a maximum solvent usage rate of 0.5 pounds per hour per unit and exhaust to the atmosphere.
- (i) Two (2) MIG welding stations, designated as MW1 and MW2, with a maximum wire consumption rate of 0.75 pounds per hour per unit and exhaust to a stack designated as MW-1.

- (j) Six (6) MIG welding stations, designated as MW3-MW6, MW10 and MW11, with a maximum wire consumption rate of 0.72 pounds per hour per unit and exhaust inside the building.
- (k) Two (2) MIG welding stations, designated as MW7 and MW 8, with a maximum wire consumption rate of 0.67 pounds per hour per unit and exhaust inside the building.
- (l) One (1) MIG welding station, designated as MW9, with a maximum wire consumption rate of 0.022 pounds per hour and exhausts inside the building.
- (m) One (1) stick welding station, designated as SW1, with a maximum rod consumption rate of 0.00012 pounds per hour and exhausts inside the building.
- (n) One (1) lapping machine, designated as LM1, with a maximum fluid usage rate of 0.13 pounds per hour and exhausts inside the building.
- (o) One (1) belt fabric filter, designated as BFF1, with a maximum fluid usage rate of 0.14 pounds per hour and exhausts inside the building.
- (p) One (1) CNC internal CAM grinder, designated as C1CG1, with a maximum coolant usage rate of 0.007 pounds per hour and exhausts to a stack designated as C1CG1.
- (q) One (1) parts washer, designated as PW1, with a maximum solvent usage rate of 0.04 pounds per hour and exhausts inside the building.
- (r) One (1) Busluy grinder, designated as BG1, with a maximum oil usage rate of 0.02 pounds per hour and exhausts inside the building.

Permitting Background

Since the source's potential to emit of all criteria pollutants is less than 25 tons per year, the source is required to have a registration for the entire source by December 2000. The OAM determined that instead of issuing an exemption for the new equipment, the new equipment will be incorporated into a source registration which is proposed at this time.

Existing Approvals

The source has been operating under previous approvals including, but not limited to, the following:

- (a) Exemption 157-3225, issued on November 2, 1993;
- (b) Registration 157-4341, issued on March 3, 1995;
- (c) Registration 157-4428, issued on April 20, 1995;
- (a) Exemption 157-4454, issued on April 25, 1995;
- (b) Registration 157-6479, issued on November 20, 1996;
- (c) Exemption 157-7772, issued on February 4, 1997;
- (d) Exemption 157-9403, issued on March 6, 1998; and
- (e) Exemption 157-10540, issued on February 23, 1999.

All conditions from previous approvals were incorporated into this permit.

Stack Summary

Stack ID	Operation	Height (feet)	Diameter (feet)	Flow Rate (acfm)	Temperature (°F)
c1 and c2	alkaline parts washers	20	1.0	1000	100
c3 and pc3	drying ovens	20	0.5	150	500
c4 and pc4	paint booths	20	2.5	11,000	70
c5 and pc5	curing ovens	20	0.833	700	280
r1-r3	parts washers' dryers	30	0.5	150	500
r4-r5	degreasers	30	1.33	3,400	70
r6	paint booth	30	2.5	10,000	70
NGB-1 and NGB-2	natural gas-fired boilers	21	1.67	2,500	400
DO	drying oven	28	1.33	750	150
MW-1	MIG stations MW1 and MW2	20	1.25	800	75
C1CG1	CNC grinder	20	1.0	1,000	75

Recommendation

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

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

An application for the purposes of this review was received on September 18, 2000, with additional information received on November 15, 2000.

Emission Calculations

See Appendix A of this document for detailed emissions calculations for the new equipment (MIG stations MW3-MW11, the stick welding station SW1, the lapping machine, the Busluy grinder, CNC grinder, belt fabric filter and the parts washer) (two (2) pages).

The emissions calculations for the equipment listed under (a) through (i) of the **Permitted Emission Units and Pollution Control Equipment** section are based on the calculations presented in the original permits issued listed in the **Existing Approvals'** section, respectively.

Potential To Emit

Pursuant to 326 IAC 2-1.1-1(16), Potential to Emit is defined as "the maximum capacity of a stationary source or emissions unit to emit any air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of a source to emit an air pollutant, including air pollution control equipment and restrictions on hours of operation or type or amount of material combusted, stored, or processed shall be treated as part of its design if the limitation is enforceable by the U. S. EPA, the department, or the appropriate local air pollution control agency."

Pollutant	Potential To Emit (tons/year)
PM	8.61
PM-10	8.61

SO ₂	0.05
VOC	9.48
CO	2.01
NO _x	8.59
HAP's	Potential To Emit (tons/year)
TOTAL	4.79

- (a) The potential to emit (as defined in 326 IAC 2-7-1(29)) of PM, PM₁₀ and VOC are less than 25 tons per year. Therefore, the source is not subject to the provisions of 326 IAC 2-6.1-1 (Minor Source Operating Permit).

Actual Emissions

No previous actual emission data has been received from the source.

County Attainment Status

The source is located in Tippecanoe County.

Pollutant	Status
PM-10	attainment
SO ₂	attainment
NO ₂	attainment
Ozone	attainment
CO	attainment
Lead	attainment

- (a) Volatile organic compounds (VOC) and oxides of nitrogen (NOx) are precursors for the formation of ozone. Therefore, VOC emissions are considered when evaluating the rule applicability relating to the ozone standards. Tippecanoe County has been designated as attainment or unclassifiable for ozone. Therefore, VOC and NOx emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 and 40 CFR 52.21.
- (b) Tippecanoe County has been classified as attainment or unclassifiable for PM₁₀, PM, SO₂ and CO. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 and 40 CFR 52.21.
- (c) Fugitive Emissions
 Since this type of operation is not one of the 28 listed source categories under 326 IAC 2-2, 40 CFR 52.21, or 326 IAC 2-3 and since there are no applicable New Source Performance Standards that were in effect on August 7, 1980, the fugitive particulate matter (PM) and volatile organic compound (VOC) emissions are not counted toward determination of PSD and Emission Offset applicability.

Source Status

Existing Source PSD, Part 70 or FESOP Definition (emissions after controls, based on 8,760 hours of operation per year at rated capacity and/ or as otherwise limited):

Pollutant	Emissions (ton/yr)
PM	23.56
PM10	23.24

SO ₂	0.113
VOC	20.10
CO	8.82
NO _x	12.5

- (a) This existing source is **not** a major stationary source because no attainment regulated pollutant is emitted at a rate of 250 tons per year or more, and it is not in one of the 28 listed source categories.
- (b) These emissions were based on the past air permits listed under the Existing Approvals' Section.

Proposed Modification

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

Pollutant	PM (ton/yr)	PM10 (ton/yr)	SO ₂ (ton/yr)	VOC (ton/yr)	CO (ton/yr)	NO _x (ton/yr)
Proposed Modification	0.14	0.14	0.00	1.24	0.00	0.00
PSD or Offset Threshold Level	250	250	250	250	250	250

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

Part 70 Permit Determination

326 IAC 2-7 (Part 70 Permit Program)

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

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

This status is based on all the air approvals issued to the source.

Federal Rule Applicability

- (a) 40 CFR Part 60, Subpart Dc (Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units) is not applicable because the natural gas-fired boilers listed in this registration have a heat input capacity less than 10 mmBtu/hr.
- (b) There are no other New Source Performance Standards (NSPS)(326 IAC 12 and 40 CFR Part 60) applicable to this source.
- (c) 40 CFR Part 63, Subpart T (Halogenated Solvent Cleaning) does not apply to the parts washer designated as PW1 because the solvent used by the unit does not contain any of the HAPs listed in 40 CFR §63.460.
- (d) There are no other National Emission Standards for Hazardous Air Pollutants (NESHAPs)(326 IAC 14 and 40 CFR art 63) applicable to this source.

State Rule Applicability - Entire Source

326 IAC 2-6 (Emission Reporting)

This source is located in Tippecanoe County and the potential to emit PM is less than one hundred (100) tons per year. Therefore, 326 IAC 2-6 does not apply.

326 IAC 5-1 (Visible Emissions Limitations):

Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Exemptions), opacity shall meet the following, unless otherwise stated in this permit:

- (a) Opacity shall not exceed an average of forty percent (40%) any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.
- (b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings) as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

State Rule Applicability - Two (2) Paint Booths designated as "Columns" and "Plant Central"

326 IAC 6-3-2 (Process Operations):

Pursuant to 326 IAC 6-3-2 (Process Operations), the particulate matter (PM) from the two (2) paint booths (Columns and Plant Central) shall be limited by the following:

Interpolation and extrapolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$$E = 4.10 P^{0.67} \quad \text{where } E = \text{rate of emission in pounds per hour and} \\ P = \text{process weight rate in tons per hour}$$

The panel filters shall be in operation at all times the paint booths are in operation, in order to comply with this limit.

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

Pursuant to 326 IAC 8-2-9 (Miscellaneous Metal Coating Operations), the volatile organic compound (VOC) content of coating delivered to the applicator at the spray booths designated as "Columns" and "Plant Central", shall be limited to 3.0 pounds of VOCs per gallon of coating less water, for forced warm air dried coatings above 194 °F.

Solvent sprayed from application equipment during cleanup or color changes shall be directed into containers. Such containers shall be closed as soon as such solvent spraying is complete, and the waste solvent shall be disposed of in such a manner that evaporation is minimized. Based on the MSDS submitted by the source and calculations made, the spray booths are in compliance with this requirement.

State Rule Applicability - One (1) Pneumatic Shot Blast Unit

326 IAC 6-3-2 (Process Operations):

Pursuant to 326 IAC 6-3-2 (Process Operations), the particulate matter (PM) from the pneumatic shot blast unit shall be limited by the following:

Interpolation and extrapolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$$E = 4.10 P^{0.67} \quad \text{where } E = \text{rate of emission in pounds per hour and} \\ P = \text{process weight rate in tons per hour}$$

$$E = 4.10 \cdot (46.88 \text{ lb/hr} \cdot 1 \text{ ton}/2000 \text{ lb})^{0.67} = 0.332 \text{ lb/hr.}$$

The baghouse shall be in operation at all times the shot blast unit is in operation, in order to comply with this limit.

No 326 IAC 8 rules apply since there are no VOC emissions from the process.

State Rule Applicability - One (1) Paint Booth designated as rpb #1

326 IAC 6-3-2 (Process Operations):

Pursuant to 326 IAC 6-3-2 (Process Operations), the particulate matter (PM) from the paint booth designated as rpb #1 shall be limited by the following:

Interpolation and extrapolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$$E = 4.10 P^{0.67} \quad \text{where } E = \text{rate of emission in pounds per hour and} \\ P = \text{process weight rate in tons per hour}$$

The filters shall be in operation at all times the paint booth is in operation, in order to comply with this limit.

326 IAC 8-2-9 (Miscellaneous Metal Coating) does not apply since the potential to emit of the paint booth is less than fifteen (15) pounds per day. Any change or modification which may increase potential to emit of VOC to fifteen (15) pounds per day or more from the unit, shall cause these units to be subject to 326 IAC 8-2-9, and shall require approval from IDEM, OAM prior to making the change.

No other 326 IAC 8 rules are applicable.

State Rule Applicability - Two (2) natural gas-fired boilers

326 IAC 6-2-4 (Particulate Matter Emission limitations for sources of indirect heating):

Pursuant to 326 IAC 6-2-4 (Particulate Matter Emission limitations for sources of indirect heating), particulate emissions from indirect heating facilities constructed after September 21, 1983 shall be limited by the following equation:

$$P_t = \frac{1.09}{Q^{0.26}}$$

Where P_t = Pounds of particulate matter emitted per million Btu (lb/mmBtu) heat input.

Q = Total source maximum operating capacity rating in million Btu per hour (mmBtu/hr) heat input. The maximum operating capacity rating is defined as the maximum capacity at which the facility is operated or the nameplate capacity, whichever is specified in the facility's permit application, except when some lower capacity is contained in the facility's operation permit; in which case, the capacity specified in the operation permit shall be used.

For Q less than 10 mmBtu/hr, P_t shall not exceed 0.6. For Q greater than or equal to 10,000 mmBtu/hr, P_t shall not exceed 0.1. Figure 2 may be used to estimate allowable emissions.

Therefore, $Pt = 1.09/(16.8^{0.26}) = 0.52 \text{ lb/mmBtu}$.

No other 326 IAC rules apply,

326 IAC 8-1-6 (New facilities; general reduction requirements) does not apply to the boilers because the potential to emit of VOC of each boiler is less than 25 tons per year.

No other 326 IAC 8 rules apply.

State Rule Applicability - Welding Operations (MW1-MW11 and SW1)

326 IAC 6-3-2 (Process Operations):

Pursuant to 326 IAC 6-3-2(c), the allowable particulate matter emissions rate from any process not already regulated by 326 IAC 6-1 or any New Source Performance Standard, and which has a maximum process weight rate less than 100 pounds per hour shall not exceed 0.551 pounds per hour. Therefore, the welding operations shall not exceed 0.551 pounds per hour per unit, based on a maximum process weight of less than 100 pounds per hour per unit.

Based on the potential to emit calculations, Appendix A page 1 of 2, and the past exemption calculations listed under Exemption 157-10540-00065 issued February 23, 1999, the welding facilities are in compliance with 326 IAC 6-3-2.

No 326 IAC 8 rules apply since there are no VOC emissions from the process.

State Rule Applicability - Parts washer designated as PW1

No 326 IAC 6 rules apply because there are no PM emissions from this process.

326 8-3-2 (Cold Cleaner Operation):

Pursuant to 326 8-3-2 (Cold Cleaner Operation), the owner or operator of a cold cleaning facility shall:

- (a) equip the cleaner with a cover;
- (b) equip the cleaner with a facility for draining cleaned parts;
- (c) close the degreaser cover whenever parts are not being handled in the cleaner;
- (d) drain cleaned parts for at least fifteen (15) seconds or until dripping ceases;
- (e) provide a permanent, conspicuous label summarizing the operating requirements;
- (f) store waste solvent only in covered containers and not dispose of waste solvent or transfer it to another party, in such a manner that greater than twenty percent (20%) of the waste solvent (by weight) can evaporate into the atmosphere.

326 IAC 8-3-5 (Cold Cleaner Degreaser Operation and Control):

Pursuant to 326 IAC 8-3-5 (Cold Cleaner Degreaser Operation and Control),

- (a) the owner or operator of a cold cleaner degreaser facility shall ensure that the following control equipment requirements are met:
 - (1) Equip the degreaser with a cover. The cover must be designed so that it can be easily operated with one (1) hand if:
 - (A) the solvent volatility is greater than two (2) kiloPascals (fifteen (15) millimeters of mercury or three-tenths (0.3) pounds per square inch)

measured at thirty-eight degrees Celsius (38EC) (one hundred degrees Fahrenheit (100EF));

- (B) the solvent is agitated; or
 - (C) the solvent is heated.
- (2) Equip the degreaser with a facility for draining cleaned articles. If the solvent volatility is greater than four and three-tenths (4.3) kiloPascals (thirty-two (32) millimeters of mercury or six-tenths (0.6) pounds per square inch) measured at thirty-eight degrees Celsius (38EC) (one hundred degrees Fahrenheit (100EF)), then the drainage facility must be internal such that articles are enclosed under the cover while draining. The drainage facility may be external for applications where an internal type cannot fit into the cleaning system.
- (3) Provide a permanent, conspicuous label which lists the operating requirements outlined in subsection (b).
- (4) The solvent spray, if used, must be a solid, fluid stream and shall be applied at a pressure which does not cause excessive splashing.
- (5) Equip the degreaser with one (1) of the following control devices if the solvent volatility is greater than four and three-tenths (4.3) kiloPascals (thirty-two (32) millimeters of mercury or six-tenths (0.6) pounds per square inch) measured at thirty-eight degrees Celsius (38EC) (one hundred degrees Fahrenheit (100EF)), or if the solvent is heated to a temperature greater than forty-eight and nine-tenths degrees Celsius (48.9EC) (one hundred twenty degrees Fahrenheit (120EF)):
- (A) A freeboard that attains a freeboard ratio of seventy-five hundredths (0.75) or greater.
 - (B) A water cover when solvent used is insoluble in, and heavier than, water.
 - (C) Other systems of demonstrated equivalent control such as a refrigerated chiller or carbon adsorption. Such systems shall be submitted to the U.S. EPA as a SIP revision.
- (b) the owner or operator of a cold cleaning facility shall ensure that the following operating requirements are met:
- (1) Close the cover whenever articles are not being handled in the degreaser.
 - (2) Drain cleaned articles for at least fifteen (15) seconds or until dripping ceases.
 - (3) Store waste solvent only in covered containers and prohibit the disposal or transfer of waste solvent in any manner in which greater than twenty percent (20%) of the waste solvent by weight could evaporate.

No other 326 IAC 8 rules apply to the parts washer.

Conclusion

The operation of this steering systems manufacturing operation shall be subject to the conditions of the attached **Registration 157-12724-00065**.

Appendix A: Emissions Calculations

Company Name: TRW Automotive, Inc.
Address City IN Zip: 800 Heath Street, Lafayette, IN. 47902
Registration: 157-12724
Pit ID: 157-00065
Reviewer: NLJ
Date: 10-03-2000

1. From Welding Process

Number of Welding Stations	Maximum Throughput of Weld Wire/Metal (lbs/yr)	Maximum Wire/Metal Consumed per Station (lbs/hr)	Electrode Type ER70S-6 (lbs/lbs of electrode)	PM-10 (tons/yr)	HAP			
					Cr -- (tons/yr)	Co --	Mn 0.003 (tons/yr)	Ni -- (tons/yr)
1(MIG)	6307.2	0.72	0.0052	0.02				
1(MIG)								
1(MIG)								
1(MIG)								
1(MIG)								
1(MIG)								
1(MIG)								
1(MIG)								
1 (Stick)	17520	2	Default	0.00	0.00		0.03	0.00
Total				0.00	0.00		0.03	0.00

METHODOLOGY

Emission factors are from the SARA Reporting Guide where emission factors are in lb pollutant/lb electrode.

Thruput (lbs/yr) = Maximum Wire consumed per station (lbs/hr) * 8760 (hrs/yr)

Pollutant Emission (tons/yr) =Thruput (lbs/yr) * Emission factor (lbs/ lb)/2000 (lbs/ton)

2. From flame-cutting

Number of Station (Oxyacetylene)	Maximum Throughput of Cutting Metal (kin/yr)	Maximum Metal Thickness Cut (in)	Maximum Metal Cutting Rate (in/min)	PM-10 0.1622 (tons/yr)	HAP			
					Cr 0.0003 (tons/yr)		Mn 0.0005 (tons/yr)	Ni 0.0001 (tons/yr)
1	65.70	0.50	0.25	0.0053	0.0000		0.0000	0.0000

METHODOLOGY *

Emission factors are from SARA 313 Reporting Guide, the units are lbs/kin of metal cutted

Thruput (kin/yr) = Station Number *Maximum Metal Thickness cut (in)/1(in)* Maximum Metal Cutting Rate (in/min)*60(min/hr) * 8760 (hrs/yr)/1000

Pollutant Emission (tons/yr) =Thruput (kin/yr) * Emission factor (lbs/ kin)/2000 (lbs/ton)

* NOTE: The Methodology are from SARA Reporting Guide

**Appendix A: Emissions Calculations
For Parts Washer (VOC and HAP)**

Company Name: TRW Automotive, Inc.
Address City IN Zip: 800 Heath Street, Lafayette, IN. 47902
Registration: 157-12724
Pit ID: 157-00065
Reviewer: NLJ
Date: 10-03-2000

Unit ID	Solvent Usage Rate (pounds per hour)	HAPs % content	VOC % content	Potential VOC pounds per hour	Potential HAP pounds per hour	Potential VOC tons per year	Potential HAPs tons per year
Parts Washer	0.0374	26.00%	26.00%	0.01	0.010	0.04	0.043
Lapping Machine	0.13	0.00%	100.00%	0.13	0.000	0.57	0.000
Belt Fabric Filter	0.14	0.00%	84.00%	0.12	0.000	0.52	0.000
CNC Grinder	0.0066	9.00%	90.00%	0.01	0.001	0.03	0.003
Busluy Grinder	0.0194	0.00%	99.00%	0.02	0.000	0.08	0.000
Total				0.282	0.010	1.237	0.045

State Potential Emissions

METHODOLOGY

Potential VOC Pounds per Hour = Solvent Usage Rate (lbs/hr) * VOC/HAP % content

Potential VOC Tons per Year = Solvent Usage Rate (lbs/hr) * VOC/HAP % content * 8760 hours per year * ton/2000 lb