Mr. Archie Kappel
Aisin Brake & Chassis, Inc.
P.O. Box 10757
Terre Haute, IN 47801

April 8, 2004

Dear Mr. Kappel:

Re: Exempt Construction and Operation Status,
167-18863-00131

Aisin Brake & Chassis, Inc., received an Exemption Letter on February 6, 2002 for eight (8) natural gas fired combustion units. A letter requesting a revision to this permit was received on November 21, 2003. Based on the data submitted and the provisions in 326 IAC 2-1.1-3, the existing Exemption Letter is hereby amended to include the following: Three (2) natural gas fired combustion units and one (1) surface coating unit, along with the eight combustion units from the previous exemption (167-15511-00131). It has been determined that the following heating units and surface coating unit, to be located at 10550 James Adams Street, Terre Haute, Indiana, is classified as exempt from air pollution permit requirements:

(a) Eight (8) natural gas fired heating units, identified as RTF-1 through 8, constructed February, 2002, rated at a maximum capacity of 0.54 million (MM) Btu per hour, each.

(b) One (1) natural gas fired hot water boiler, identified as BS1, constructed September, 2003, Re?rated at a maximum capacity of 5.0 million (MM) Btu per hour.

(c) One (1) natural gas fired paint dry/bake oven, identified as BS2, constructed September, 2003, rated at a maximum capacity of 3.50 million (MM) Btu per hour.

(d) One (1) surface coating operation, identified as EFS, constructed March of 2004, using a dipping method application for coating metal parts, with a maximum capacity of 3300 units per hour.

The natural gas combustion units are subject to 326 IAC 6-2-4, Emission limitations for facilities specified in 326 IAC 6-2-1(d). Pursuant to this rule, the particulate emissions from the indirect heating facilities shall not exceed 0.56 pounds per million (MM) Btu heat input.

This decision is subject to the Indiana Administrative Orders and Procedures Act - IC 4-21.5-3-5. If you have any questions on this matter, please contact Mr. Darren Woodward, at VCAPC, 103 South Third Street, Terre Haute, Indiana, 47807, or call (812) 462-3433, extension 15.

An application or notification shall be submitted in accordance with 326 IAC 2 to the Office of Air Quality (OAQ), and Vigo County Air Pollution Control (VCAPC) if the source proposes to construct new emission units, modify existing emission units, or otherwise modify the source.

Sincerely,

Original Signed by George M. Needham
George M. Needham
Director
Vigo County Air Pollution Control

DKW

cc: Mindy Hahn - IDEM
Winter Bottum - IDEM

Indiana Department of Environmental Management
Office of Air Quality
and
Vigo County Air Pollution Control

Technical Support Document (TSD) for an Exemption

Source Background and Description

Source Name:	Aisin Brake & Chassis, Inc.
Source Location:	10550 James Adams Street, Terre Haute, IN 47802
County:	Vigo
SIC Code:	5013
Operation Permit No.:	167-18863-00131
Permit Reviewer:	Darren Woodward

Vigo County Air Pollution Control (VCAPC) has reviewed an application from Aisin Brake & Chassis, Inc. relating to the construction and operation of an automotive parts assembly.

Permitted Emission Units and Pollution Control Equipment

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

(a) One (1) natural gas fired heating unit, identified as RTF-1, constructed February, 2002, with a maximum capacity of 0.54 million (MM) Btu per hour.

(b) One (1) natural gas fired heating unit, identified as RTF-2, constructed February, 2002, with a maximum capacity of 0.54 million (MM) Btu per hour

(c) One (1) natural gas fired heating unit, identified as RTF-3, constructed February, 2002, with a maximum capacity of 0.54 million (MM) Btu per hour

(d) One (1) natural gas fired heating unit, identified as RTF-4, constructed February, 2002, with a maximum capacity of 0.54 million (MM) Btu per hour

(e) One (1) natural gas fired heating unit, identified as RTF-5, constructed February, 2002, with a maximum capacity of 0.54 million (MM) Btu per hour

(f) One (1) natural gas fired heating unit, identified as RTF-6, constructed February, 2002, with a maximum capacity of 0.54 million (MM) Btu per hour

(g) One (1) natural gas fired heating unit, identified as RTF-7, constructed February, 2002, with a maximum capacity of 0.54 million (MM) Btu per hour

(h) One (1) natural gas fired heating unit, identified as RTF-8, constructed February, 2002, with a maximum capacity of 0.54 million (MM) Btu per hour

(i) One (1) natural gas fired hot water boiler, identified as BS1, constructed September, 2003, rated at a maximum capacity of 5.0 million (MM) Btu per hour.

(j) One (1) natural gas fired paint dry/bake oven, identified as BS2, constructed September, 2003, rated at a maximum capacity of 3.50 million (MM) Btu per hour.

(k) One (1) surface coating operation, identified as EFS, constructed March of 2004, using a dipping method application for coating metal parts, with a maximum capacity of 3,300 units per hour.

Unpermitted Emission Units and Pollution Control Equipment

There are no unpermitted facilities operating at this source during this review process.

Existing Approvals

(a) Exemption 167-15511-00131, issued on February 6, 2002.

All conditions from previous approvals were incorporated into this permit.

Enforcement Issue

There are no enforcement actions pending.

Recommendation

The staff recommends to the Commissioner that the construction and 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.

A complete application for the purposes of this review was received on November 21, 2003.

Emission Calculations

See pages 1-3 of the TSD Appendix A of this document for detailed emissions calculations.

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	0.107
PM-10	0.427
SO_2	0.033
VOC	1.04
CO	4.72
NO_x	5.61

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

Actual Emissions

No previous emission data has been received from the source.

County Attainment Status

The source is located in Vigo County.

Pollutant	Status
PM-10	attainment
SO_2	attainment
NO_2	attainment
Ozone	attainment
CO	attainment
Lead	attainment

(a) Volatile organic compounds (VOC) are precursors for the formation of ozone. Therefore, VOC emissions are considered when evaluating the rule applicability relating to the ozone standards. Vigo 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.

(b) Vigo County has been classified as attainment or unclassifiable for all 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

New Source PSD 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	0.107
PM10	0.427
SO_2	0.033
VOC	1.04
CO	4.72
NO_x	5.61
Single HAP	NA
Combination HAPs	NA

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

Part 70 Permit Determination

326 IAC 2-7 (Part 70 Permit Program)

This new 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.

Federal Rule Applicability

(a) There are no New Source Performance Standards (NSPS)(326 IAC 12 and 40 CFR Part 60) applicable to this source.

State Rule Applicability - Individual Facilities

326 IAC 6-2-4 (Emission limitations for facilities specified in 326 IAC 6-2-1(d))

Pursuant to 326 IAC 6-2-1(d), the eight (8) natural gas combustion heating units are subject to 326 IAC 6-2-4. Pursuant to this rule, the particulate emissions from the indirect heating facilities shall not exceed 0.56 pounds per million (MM) Btu heat input.

Conclusion

The construction and operation of this automotive parts assembly shall be subject to the conditions of the attached Exemption Letter 167-18863-00131.

Appendix A: Emissions Calculations
Natural Gas Combustion Only
MM BTU/HR <100
Small Industrial Boiler
Company Name: Aisin Brake & Chassis, Inc.
Address City IN Zip: 10550 James Adams Street, Terre Haute, Indiana 47802
CP: 167-18863
Plt ID: 167-00131
Reviewer: Darren Woodward
Date: April 7, 2004

Heat Input Capacity MMBtu/hr	Potential Throughput MMCF/yr
0.540	4.7

	Pollutant					
	PM*	PM10*	SO2	NOx	VOC	CO
Emission Factor in lb/MMCF	1.9	7.6	0.6	100.0 **see below	5.5	84.0
Potential Emission in tons/yr	0.004	0.018	0.001	0.237	0.013	0.199
Total for eight units in Tons/yr	0.036	0.144	0.011	1.89	0.104	1.59

*PM emission factor is filterable PM only. PM10 emission factor is condensable and filterable PM10 combined.
**Emission Factors for NOx: Uncontrolled = 100, Low NOx Burner = 50, Low NOx Burners/Flue gas recirculation = 32

Methodology

All emission factors are based on normal firing.
MMBtu = 1,000,000 Btu
MMCF = 1,000,000 Cubic Feet of Gas

Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,000 MMBtu
Emission Factors are from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03 (SUPPLEMENT D 3/98)
Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton
Note: Check the applicable rules and test methods for PM and PM10 when using the above emission factors to confirm that the correct factor is used (i.e., condensable included/not included).

Appendix A: Emissions Calculations
Natural Gas Combustion Only
MM BTU/HR <100
Small Industrial Boiler

Company Name: **Aisin Brake & Chassis, Inc.**
Address City IN Zip: **10550 James Adams Street, Terre Haute, Indiana 47802**
Permit Number: **167-18863**
Plt ID: **167-00131**
Reviewer: **Darren Woodward**
Date: **7-Apr-04**

Heat Input Capacity MMBtu/hr	Potential Throughput MMCF/yr
8.5	74.5

	Pollutant					
	PM*	PM10*	SO2	NOx	VOC	CO
Emission Factor in lb/MMCF	1.9	7.6	0.6	100.0 **see below	5.5	84.0
Potential Emission in tons/yr	0.071	0.283	0.022	3.72	0.205	3.13

*PM emission factor is filterable PM only. PM10 emission factor is filterable and condensable PM10 combined.
**Emission Factors for NOx: Uncontrolled = 100, Low NOx Burner = 50, Low NOx Burners/Flue gas recirculation = 32

Methodology

All emission factors are based on normal firing.
MMBtu = 1,000,000 Btu
MMCF = 1,000,000 Cubic Feet of Ga

Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,000 MMBtu
Emission Factors are from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03 (SUPPLEMENT D 3/98)
Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton

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

Company Name: **Aisin Brake & Chassis, Inc.**
Address City IN Zip: **10550 James Adams Street, Terre Haute, Indiana 47802**
Permit Number: **167-18863**
Plt ID: **167-00131**
Reviewer: **Darren Woodward**
Date: **7-Apr-04**

Material	Density (Lb/Gal)	Weight % Volatile (H20 & Organics)	Weight % Water	Weight % Organics	Volume % Water	Volume % Non-Volatiles (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
Powercron 8000 Black P665-415	9.2	60.00%	59.7%	0.3%	65.9%	34.00%	0.00183	3300.000	0.081	0.028	0.167	4.00	0.730	0.00	0.081	100%
State Potential Emissions			**Add worst case coating to all solvents**								**0.167**	**4.00**	**0.730**	**0.00**		

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