Mr. Dave Elchert
Dadon Corporation DBA Merhow Industries
306 Depot Street
Bristol, Indiana 46507

Re: Registered Construction and Operation Status,
039-12075-00135

Dear Mr. Elchert:

The application from Dadon Corporation DBA Merhow Industries, received on March 22, 2000, has been reviewed. Based on the data submitted and the provisions in 326 IAC 2-5.1, it has been determined that the following horse trailer manufacturer, to be located at 306 Depot Street, Bristol, Indiana, is classified as registered:

(a) One (1) air atomization paint booth, designated as S-1, with a maximum metal throughput of 0.375 units per hour, maximum paint usage of 19.05 pounds per hour, particulate matter controlled by dry filters and exhausts to one (1) stack designated as S-1.

(b) Six (6) metal inert gas (MIG) welding stations, with a maximum aluminum wire consumption of 0.26 pounds per hour and exhaust to the atmosphere.

(c) Six (6) metal inert gas (MIG) welding stations, with a maximum steel wire consumption rate of 1.55 pounds per hour and exhaust to the atmosphere.

(d) Six (6) natural gas-fired radiant heaters, designated as H-1 through H-6, with a maximum heat input capacity of 0.175 mmBtu/hr each and exhaust to the atmosphere.

(e) Five (5) natural gas-fired radiant heaters, designated as H-1 through H-6, with a maximum heat input capacity of 0.100 mmBtu/hr each and exhaust to the atmosphere.

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 continuos opacity monitor in a six (6) hour period.

2. Pursuant to the 326 IAC 6-3-2 (Process Operations), particulate matter (PM) from the paint booth designated as S-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:

   $E = 4.10\ P^{0.67}$ where E = rate of emission in pounds per hour and

P = process weight rate in tons per hour.

The dry filters shall be in operation at all times the paint booth designated as S-1 is in operation, in order to comply with this limit.

3. Pursuant to the 326 IAC 6-3-2 (Process Operations), particulate matter (PM) from the twelve (12) MIG welding stations 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:

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

$Ew\ (welding) = 4.10*(1.88\ lb/hr*ton/2000\ lb)^{0.67} = 0.04\ lb/hr.$

This registration is the first air approval 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 2-5.1-2(f)(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.

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 - Elkhart County
Elkhart County Health Department
Air Compliance - Rick Reynolds
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 2-5.1-2(f)(3)

Company Name: Dadon Corporation DBA Merhow Industries
Address: 306 Depot Street
City: Bristol
Authorized individual: Dave Elchert
Phone #: 319-848-4445
Registration #: 039-12075-00135

I hereby certify that Dadon Corporation DBA Merhow Industries is still in operation and is in compliance with the requirements of Registration 039-12075-00135.

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:	Dadon Corporation DBA Merhow Industries
Source Location:	306 Depot Street, Bristol, Indiana 46507
County:	Elkhart
SIC Code:	3715
Operation Permit No.:	039-12075-00135
Permit Reviewer:	Nysa L. James

The Office of Air Management (OAM) has reviewed an application from Dadon Corporation DBA Merhow Industries relating to the construction and operation of a horse trailer manufacturer.

New Emission Units and Pollution Control Equipment

(a) One (1) air atomization paint booth, designated as S-1, with a maximum metal throughput of 0.375 units per hour, maximum paint usage of 19.05 pounds per hour, particulate matter controlled by dry filters and exhausts to one (1) stack designated as S-1.

(b) Six (6) metal inert gas (MIG) welding stations, with a maximum aluminum wire consumption of 0.26 pounds per hour and exhaust to the atmosphere.

(c) Six (6) metal inert gas (MIG) welding stations, with a maximum steel wire consumption rate of 1.55 pounds per hour and exhaust to the atmosphere.

(d) Six (6) natural gas-fired radiant heaters, designated as H-1 through H-6, with a maximum heat input capacity of 0.175 mmBtu/hr each and exhaust to the atmosphere.

(e) Five (5) natural gas-fired radiant heaters, designated as H-1 through H-6, with a maximum heat input capacity of 0.100 mmBtu/hr each and exhaust to the atmosphere.

Stack Summary

Stack ID	Operation	Height (feet)	Diameter (feet)	Flow Rate (acfm)	Temperature (^{0}F)
S-1	Paint Booth	24	3.5	21,600	Ambient

Recommendation

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

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 March 22, 2000, with additional information received on April 19, 2000.

Emission Calculations

See Appendix A of this document for detailed emissions calculations (Four (4) pages).

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	12.79
PM-10	12.92
SO_2	0.00
VOC	16.98
CO	0.14
NO_x	0.68

HAP's	Potential To Emit (tons/year)
Toluene	0.37
Xylene	2.48
MEK	0.65
Hexamethylene-DI-Isocyanate	0.07
Ethyl Benzene	0.41
Nickel Compounds	0.82
TOTAL	4.8

(a) The potential to emit (as defined in 326 IAC 2-7-1(29)) of any criteria pollutant is less than 100 tons per year. Therefore, the source is not subject to the provisions of 326 IAC 2-7.

(b) The potential to emit (as defined in 326 IAC 2-7-1(29)) of any single HAP is less than ten (10) tons per year and the potential to emit (as defined in 326 IAC 2-7-1(29)) of a combination HAPs is less than twenty-five (25) tons per year. Therefore, the source is not subject to the provisions of 326 IAC 2-7.

County Attainment Status

The source is located in Elkhart 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. Elkhart County has been designated as attainment or unclassifiable for ozone. Therefore, VOC and NOx emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 and 40 CFR 52.21.

(b) Elkhart County has been classified as attainment or unclassifiable for PM_{10}, SO_2 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.

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	0.334
PM10	0.464
SO_2	0.00
VOC	16.98
CO	0.14
NO_x	0.68
Worst Case Single HAP	2.48
Combination HAPs	4.8

(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.

This is the first air approval issued to this source.

Federal Rule Applicability

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

(b) There are no National Emission Standards for Hazardous Air Pollutants (NESHAPs)(326 IAC 14 and 40 CFR Part 63) applicable to this source.

State Rule Applicability - Entire Source

326 IAC 2-6 (Emission Reporting)

This source is subject to 326 IAC 2-6 (Emission Reporting), because the potential to emit is more than ten (10) tons per year of VOC and the source is located in Elkhart County. Pursuant to this rule, the owner/operator of the source must annually submit an emission statement for the source. The annual statement must be received by April 15 of each year and contain the minimum requirement as specified in 326 IAC 2-6-4. The submittal should cover the period defined in 326 IAC 2-6-2(8)(Emission Statement Operating Year).

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 - Paint Booth (S-1)

326 IAC 2-4.1 (New Source Toxics Rule) does not apply to the paint booth because the potential to emit of a single HAP is less than ten (10) tons per year and the combination of HAPs is less than twenty-five (25) tons per year.

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

Pursuant to the 326 IAC 6-3-2 (Process Operations), particulate matter (PM) from the paint booth designated as S-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:

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

The dry filters shall be in operation at all times the paint booth designated as S-1 is in operation, in order to comply with this limit.

No other 326 IAC 6 rules apply.

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 booth shall be limited to 3.5 pounds of VOCs per gallon of coating less water, for air dried coatings.

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 booth is in compliance with this requirement.

No other 326 IAC 8 rules apply.

State Rule Applicability - Welding Operations

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

Pursuant to the 326 IAC 6-3-2 (Process Operations), particulate matter (PM) from the MIG stations 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:

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

$Ew\ (welding) = 4.10*(1.88\ lb/hr*ton/2000\ lb)^{0.67} = 0.04\ lb/hr$

No other 326 IAC 6 rules apply.

No 326 IAC 8 rules apply because there are no VOC emissions from the welding operations.

Conclusion

The construction and operation of this horse trailer manufacturer shall be subject to the conditions of the attached proposed **Registration No. 039-12075-00135.**

Appendix A: Emissions Calculations

Company Name: Dadon Corporation DBA Merhow Industries
Address City IN Zip: 306 Depot Street, Bristol, Indiana 46507
CP: 039-12075
Plt ID: 039-00135
Reviewer: NLJ
Date: 04/19/2000

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 Steel	PM-10 0.0055 (tons/yr)	HAP Cr -- (tons/yr)	HAP Mn 0.0005 (tons/yr)	HAP Ni -- (tons/yr)
6(MIG)	13578	1.55	Default	0.04	0.00	0.00	0.00
Total				0.04	0.00	0.00	0.00

2. 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 Aluminum	PM-10 0.0775 (tons/yr)	HAP Cr -- (tons/yr)	HAP Mn -- (tons/yr)	HAP Ni -- (tons/yr)
6(MIG)	2277.6	0.26	Default	0.09	0.00	0.00	0.00
Total				0.09	0.00	0.00	0.00

METHODOLOGY

Emission factors are from the SARA Reporting Gude where emission factors are in lb pollutant/lb electrode.
Throuput (lbs/yr) = Maximum Wire consumed per station (lbs/hr) * 8760 (hrs/yr)
Pollutant Emission (tons/yr) =Throuput (lbs/yr) * Emission factor (lbs/ lb)/2000 (lbs/ton)

Appendix A: Emission Calculations
Natural Gas Combustion Only
MM Btu/hr 0.3 - < 10
Eleven (11) natural gas radiant heaters

Company Name: **Dadon Corporation DBA Merhow Industries**
Address City IN Zip: **306 Depot Street, Bristol, Indiana 46507**
CP: **039-12075**
Plt ID: **039-00135**
Reviewer: NLJ
Date: 04/05/2000

Heat Input Capacity MMBtu/hr	Potential Throughput MMCF/yr
1.6	13.6

	Pollutant					
	PM	PM10	SO2	NOx	VOC	CO
Emission Factor in lb/MMCF	11.9	11.9	0.6	100.0	5.3	21.0
Potential Emission in tons/yr	0.08	0.08	0.00	0.68	0.04	0.14

Methodology

MMBtu = 1,000,000 Btu

MMCF = 1,000,000 Cubic Feet of Gas

Emission Factors for NOx: uncontrolled = 100, Low Nox Burner = 17, Flue gas recirculation = 36

Emission Factors for CO: uncontrolled = 21, Low NOx Burner = 27, Flue gas recirculation = ND

Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,000 MMBtu

Emission Factors from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, and 1.4-3, SCC #1-03-006-03

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: Dadon Corporation DBA Merhow Industries
Address City IN Zip: 306 Depot Street, Bristol, Indiana 46507
CP: 039-12075
Plt ID: 039-00135
Reviewer: NLJ
Date: 04/05/00

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
#1400 Undercoating	9.4	49.00%	48.3%	0.7%	48.2%	51.00%	1.282	0.375	0.13	0.07	0.03	0.76	0.14	5.05	0.13	50%
Acetone	6.5	0.00%	0.0%	0.0%	0.0%	0.00%	2.256	0.375	0.00	0.00	0.00	0.00	0.00	0.00	--	100%
Wiping Cleaner	6.5	100.00%	0.0%	100.0%	0.0%	0.00%	0.462	0.375	6.52	6.52	1.13	27.11	4.95	0.00	--	100%
CLV 35413	9.9	40.45%	0.0%	40.5%	0.0%	45.28%	0.500	0.375	4.02	4.02	0.75	18.09	3.30	2.43	8.88	50%
DCX61 Catalyst	9.0	16.09%	0.0%	16.1%	0.0%	78.81%	0.250	0.375	1.44	1.44	0.14	3.24	0.59	1.54	1.83	50%
MP 211	12.9	19.88%	0.0%	19.9%	0.0%	62.37%	0.225	0.375	2.56	2.56	0.22	5.19	0.95	1.91	4.11	50%
MP 212	9.6	0.00%	0.0%	0.0%	0.0%	100.00%	0.225	0.375	0.00	0.00	0.00	0.00	0.00	1.78	0.00	50%
MX 200	8.2	98.32%	0.0%	98.3%	0.0%	1.57%	0.050	0.375	8.01	8.01	0.15	3.61	0.66	0.01	510.39	50%
Mineral Spirits	6.1	100.00%	0.0%	100.0%	0.0%	0.00%	0.026	0.375	6.08	6.08	0.06	1.42	0.26	0.00	--	100%
Isopropyl Alcohol	6.6	100.00%	0.0%	100.0%	0.0%	0.00%	0.564	0.375	6.58	6.58	1.39	33.40	6.10	0.00	--	100%

State Potential Emissions **Add worst case coating to all solvents** **3.87** **92.82** **16.94** **12.71**

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

Appendix A: Emission Calculations
HAP Emission Calculations

Company Name: Dadon Corporation DBA Merhow Industries
Address City IN Zip: 306 Depot Street, Bristol, Indiana 46507
CP#: 039-12075
Plt ID: 039-00135
Permit Reviewer: NLJ
Date: 04/20/200(

Material	Density (Lb/Gal)	Gallons of Material (gal/unit)	Maximum (unit/hour)	Weight % Xylene	Weight % Toluene	Weight % Ehtyl Benzene	Weight % MEK	Weight % Nickel Compound	Weight % Glycol Ethers	Weight % Hexamethylene-DI-Isocyanat	Xylene Emissions (ton/yr)	Toluene Emissions (ton/yr)	Formaldehyde Emissions (ton/yr)	Benzene Emissions (ton/yr)	Hexane Emissions (ton/yr)	Glycol Ethers Emissions (ton/yr)	Methanol Emissions (ton/yr)
CLV 35413	9.94	0.500	0.38	30.00%	1.53%	5.00%	5.00%	10.00%	0.00%	0.00%	2.45	0.12	0.41	0.41	0.82	0.00	0.00
DCX61 Catalyst	8.95	0.250	0.38	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	1.00%	0.00	0.00	0.00	0.00	0.00	0.00	0.04
MP 211	12.89	0.225	0.38	0.62%	0.00%	0.00%	5.00%	0.00%	0.00%	0.00%	0.03	0.00	0.00	0.24	0.00	0.00	0.00
Wiping Cleaner				0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total State Potential Emissions											**2.48**	**0.12**	**0.41**	**0.65**	**0.82**	**0.00**	**0.04**

METHODOLOGY

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