

## **Statement of Basis**

**Permit to Construct No. P-2010.0071  
Project ID 61781**

**Big Tex Trailer Manufacturing  
Caldwell, Idaho**

**Facility ID No. 027-00064**

**Final**

**January 6, 2017**  
**Morrie Lewis**  
**Permit Writer**



**The purpose of this Statement of Basis is to satisfy the requirements of IDAPA 58.01.01. et seq, Rules for the Control of Air Pollution in Idaho, for issuing air permits.**

<b>ACRONYMS, UNITS, AND CHEMICAL NOMENCLATURE</b> .....	<b>3</b>
<b>FACILITY INFORMATION</b> .....	<b>4</b>
Description .....	4
Permitting History .....	4
Application Scope .....	4
Application Chronology .....	4
<b>TECHNICAL ANALYSIS</b> .....	<b>5</b>
Emissions Units and Control Equipment .....	5
Emissions Inventories .....	6
Ambient Air Quality Impact Analyses.....	7
<b>REGULATORY ANALYSIS</b> .....	<b>8</b>
Attainment Designation (40 CFR 81.313) .....	8
Permit to Construct (IDAPA 58.01.01.201).....	8
Tier II Operating Permit (IDAPA 58.01.01.401) .....	8
Title V Classification (IDAPA 58.01.01.300, 40 CFR Part 70).....	8
PSD Classification (40 CFR 52.21) .....	8
NSPS Applicability (40 CFR 60).....	8
NESHAP Applicability (40 CFR 61).....	8
MACT Applicability (40 CFR 63).....	9
Permit Conditions Review .....	9
<b>PUBLIC REVIEW</b> .....	<b>14</b>
Public Comment Opportunity .....	14
<b>APPENDIX A – EMISSION INVENTORIES</b>	
<b>APPENDIX B – NESHAP REGULATORY APPLICABILITY</b> .....	<b>16</b>

## ACRONYMS, UNITS, AND CHEMICAL NOMENCLATURE

AAC	acceptable ambient concentrations
AACC	acceptable ambient concentrations for carcinogens
ASHRAE	American Society of Heating, Refrigerating, and Air-Conditioning Engineers
BRC	below regulatory concern for criteria pollutants as provided in IDAPA 58.01.01.221.01
CAA	Clean Air Act
CAS No.	Chemical Abstracts Service registry number
CFR	Code of Federal Regulations
CO	carbon monoxide
CO <sub>2</sub>	carbon dioxide
CO <sub>2</sub> e	CO <sub>2</sub> equivalent emissions
day	calendar day
DEQ	Department of Environmental Quality
EL	screening emission levels
EPA	U.S. Environmental Protection Agency
ft	linear feet of material cut
gal	gallons
HAP	hazardous air pollutants
hr	clock hours
IDAPA	a numbering designation for all administrative rules in Idaho promulgated in accordance with the Idaho Administrative Procedures Act
lb	pounds
MACT	Maximum Achievable Control Technology
MeCl	methylene chloride
mg/m <sup>3</sup>	milligrams per cubic meter
mo	calendar month
MMBtu	million British thermal units
MMscf	million standard cubic feet
NAAQS	National Ambient Air Quality Standard
NESHAP	National Emission Standards for Hazardous Air Pollutants
NO <sub>2</sub>	nitrogen dioxide
NO <sub>x</sub>	nitrogen oxides
NSPS	New Source Performance Standards
O&M	operation and maintenance
PC	permit condition
PM	particulate matter
PM <sub>2.5</sub>	particulate matter with an aerodynamic diameter less than or equal to a nominal 2.5 micrometers
PM <sub>10</sub>	particulate matter with an aerodynamic diameter less than or equal to a nominal 10 micrometers
PSD	Prevention of Significant Deterioration
PTC	permit to construct
PTE	potential to emit
Rules	Rules for the Control of Air Pollution in Idaho
scf	standard cubic feet
SDS	Safety Data Sheet
SO <sub>2</sub>	sulfur dioxide
T	tons
T2	Tier II operating permit
TAP	toxic air pollutants
VOC	volatile organic compounds
U.S.C.	United States Code
yr	consecutive 12 calendar month period
µg/m <sup>3</sup>	micrograms per cubic meter

## **FACILITY INFORMATION**

### ***Description***

Big Tex Trailer Manufacturing manufactures horse and utility trailers. Activities include coating, curing, cutting, welding, and grinding operations.

### ***Permitting History***

The following information was derived from a review of the permit files available to DEQ. Permit status is noted as active and in effect (A), superseded (S), or terminated (T).

November 9, 2010	P-2010.0071 PROJ 0001, revised PTC to replace HVLP with electrostatic spray guns and limit PTE below major thresholds (S)
June 29, 2009	T1- 2009.0058, Tier I administrative amendment, change of ownership from Western World/Circle J Trailers to Circle J Trailers, Inc. (T)
September 22, 2005	T1-040040, Tier I operating permit renewal (S)
December 15, 2000	T1-027-00064, initial Tier 1 operating permit (S)
April 30, 1999	P-027-00064, initial PTC fiberglass roof and painting operations (S)

### ***Application Scope***

This PTC is a permit transfer through a permit revision and is for a minor modification at an existing minor facility.

The applicant has proposed to:

- Install and operate a replacement paint booth.
- Install and operate a curing oven.
- Change the ownership of the facility.

### ***Application Chronology***

March 22, 2016	DEQ received an application fee.
September 1, 2016	DEQ received an application.
September 13 – 28, 2016	DEQ provided an opportunity to request a public comment period on the application and proposed permitting action.
September 26, 2016	DEQ made available the draft permit and statement of basis for peer and regional office review.
September 29, 2016	DEQ determined that the application was incomplete.
September 29, 2016	DEQ made available the draft permit and statement of basis for applicant review.
October 31, 2016	DEQ received supplemental information from the applicant.
November 28, 2016	DEQ determined that the application was complete.
December 29, 2016	DEQ received the permit processing fee.
January 6, 2017	DEQ issued the final permit and statement of basis.

# TECHNICAL ANALYSIS

## Emissions Units and Control Equipment

Table 1 Emissions Units and Control Equipment

Source	Control Equipment
<u>Booth # 1 (PB1)</u> Manufacturer: Col-Met or equivalent <sup>(a)</sup> Maximum operation: 420 gal/day and 38,421 gal/yr, or as limited by Paint Booth Emission Limits for all booths	<u>Booth filter system</u> Booth Type: Downdraft Particulate filtration method: Dry filters Manufacturer: Air Flow Technologies Series 64 or equivalent <sup>(a)</sup> PM Control Efficiency: 99.53% or greater  <u>Coating spray guns:</u> Manufacturer: Graco or equivalent <sup>(a)</sup> Model: 244401 Umax 85kV or equivalent <sup>(a)</sup> Type: PRO Xs4 AA electrostatic air-assisted spray guns or equivalent <sup>(a)</sup> Transfer Efficiency: 80% or greater
<u>Booth # 2 (PB2)</u> Manufacturer: Col-Met or equivalent <sup>(a)</sup> Maximum operation: 420 gal/day, 38,421 gal/yr, or as limited by Paint Booth Emission Limits for all booths	
<u>Booth # 3 (PB3)</u> Manufacturer: Col-Met or equivalent <sup>(a)</sup> Maximum operation: 420 gal/day, 38,421 gal/yr, or as limited by Paint Booth Emission Limits for all booths	
<u>Wash Booth Heater #1 (WB-1)</u> Manufacturer: Ambirad or equivalent <sup>(a)</sup> Model: 7AR84 Maximum capacity: 0.18 MMBtu/hr Fuel: natural gas Maximum operation: 5,000 hr/yr	None
<u>Wash Booth Heater #2 (WB-2)</u> Manufacturer: Ambirad or equivalent <sup>(a)</sup> Model: 7AR84 Maximum capacity: 0.18 MMBtu/hr Fuel: natural gas Maximum operation: 5,000 hr/yr	None
<u>Curing Oven #1 (CO-1)</u> Manufacturer: Col-Met or equivalent <sup>(a)</sup> Model: BCC-16-13-52-P-DT Maximum capacity: 3 MMBtu/hr Fuel: natural gas Date of installation: 2015 Maximum operation: 5,000 hr/yr	None
<u>Curing Oven #2 (CO-2)</u> Manufacturer: Col-Met or equivalent <sup>(a)</sup> Model: EH-3540K-V Maximum capacity: 3 MMBtu/hr Fuel: natural gas Maximum operation: 5,000 hr/yr	None
<u>Air Makeup Unit (AMU-1)</u> Manufacturer: Col-Met or equivalent <sup>(a)</sup> Model: EH-3540K-V Maximum capacity: 4 MMBtu/hr Fuel: natural gas Date of installation: November 2014	None

Maximum operation:	5,000 hr/yr	
<u>Plasma Cutter (PC-1)</u>		
Manufacturer:	Hypertherm or equivalent <sup>(a)</sup>	<u>Plasma Cutter (PC-1) Filtration System</u>
Model:	1250 or equivalent <sup>(a)</sup>	
Maximum operation:	424,500 linear ft/yr	
<u>(8) Handheld Plasma Cutters (PC-2 through PC-9)</u>		
Manufacturers:	Hypertherm, Miller, or equivalent <sup>(a)</sup>	None
Models:	85 Hand Plaz, 105 Hand Plaz, PowerMax 1000 Hand Plaz, or equivalent <sup>(a)</sup>	
Maximum operation:	1,536,000 linear ft/yr	
<u>(6) Welders (GMAW-1 through GMAW-68)</u>		
Manufacturers:	Lincoln, Miller, or equivalent <sup>(a)</sup>	None
Models:	Power Mig 300, Millermatic 211, 350LX, 350P, CP300, CP302, or equivalent <sup>(a)</sup>	
Maximum operation:	600,000 lb electrode/yr	
<u>(16) Grinders (MG-1 through MG-16)</u>		
Manufacturers:	Dewalt, Makita, or equivalent <sup>(a)</sup>	None
Models:	DWE402, 9557PB, GA7911, or equivalent <sup>(a)</sup>	
Maximum operation:	300,000 lb grinding wheel materials/yr	

(a) "or equivalent" equipment is equipment which has equivalent or less maximum capacity and equivalent or lower pollutant emission rates, whether calculated based on maximum design capacity or based on established permit limits. Use of replacement equipment shall not result in the emission of any regulated air pollutant not previously emitted and shall not result in an emission increase as defined in IDAPA 58.01.01.007.

## ***Emissions Inventories***

### **Potential to Emit**

IDAPA 58.01.01 defines Potential to Emit as the maximum capacity of a facility or stationary source to emit an air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of the facility or source to emit an air pollutant, including air pollution control equipment and restrictions on hours of operation or on the type or amount of material combusted, stored or processed, shall be treated as part of its design if the limitation or the effect it would have on emissions is state or federally enforceable. Secondary emissions do not count in determining the potential to emit of a facility or stationary source.

Potential to Emit was used to determine the facility-wide emissions of criteria pollutant, HAP, and TAP emissions (see Appendix A) to demonstrate preconstruction compliance with TAP screening emission levels (EL) and "below regulatory concern" (BRC) criteria pollutant levels, and ensure VOC and HAP major source applicability thresholds were not exceeded. Emissions inventories were based on process information specific to the facility for this proposed project; natural gas combustion emission factors from AP-42;<sup>1</sup> material safety data sheets (SDS); manufacturer specification sheets for spray booth and plasma cutter filtration and spray gun transfer efficiencies; annual usage of 52.5 MMscf/yr for combustion units (Permit Condition 2.7); daily and annual coating usage limits and formulation requirements for coating materials (Permit Conditions 2.6 and 2.8); and annual usage limits for cutting, welding, and grinding operations (Permit Conditions 3.4 through 3.6).

<sup>1</sup> Compilation of Air Pollutant Emission Factors, AP-42, Volume I, Fifth Edition (AP-42), Tables 1.4-1, 1.4-2, 1.4-3 and 1.4-4 in Section 1.4 – Natural Gas Combustion, Office of Air Quality Planning and Standards Office of Air and Radiation (OAQPS), EPA, July 1998.

### **Non-Carcinogenic and Carcinogenic TAP Emissions**

Estimated emission increases of non-carcinogenic and carcinogenic toxic air pollutants (TAP) were used to demonstrate preconstruction compliance with TAP screening emission levels (EL).

Because annual usage of 52.5 MMscf/yr for combustion units (Permit Condition 2.7); daily and annual coating usage limits and formulation requirements for coating materials (Permit Conditions 2.6 and 2.8); and annual usage limits for cutting, welding, and grinding operations (Permit Conditions 3.4 through 3.6) were imposed and agreed to by the permittee, no TAP EL specified in IDAPA 58.01.01.585–586 are expected to be exceeded by the facility (see Appendix A).

Modeling was not required for neither non-carcinogenic nor carcinogenic TAP because no TAP EL were exceeded as a result of this project.

### **HAP Emissions**

Estimated potential emissions of hazardous air pollutants (HAP) were used to ensure HAP major source thresholds were not exceeded.

Because annual usage of 52.5 MMscf/yr for combustion units (Permit Condition 2.7); daily and annual coating usage limits and formulation requirements for coating materials (Permit Conditions 2.6 and 2.8); and annual usage limits for cutting, welding, and grinding operations (Permit Conditions 3.4 through 3.6) were imposed and agreed to by the permittee, no individual nor combined HAP major source threshold are expected to be exceeded by the facility (see Appendix A).

### ***Ambient Air Quality Impact Analyses***

The estimated emission rates of PM<sub>10</sub>, PM<sub>2.5</sub>, SO<sub>2</sub>, NO<sub>x</sub>, CO, VOC, HAP, and TAP from this project were below applicable screening emission levels (EL) and published DEQ modeling thresholds established in IDAPA 58.01.01.585-586 and in the State of Idaho Air Quality Modeling Guideline<sup>2</sup>. Refer to the Emissions Inventories section and Appendix A for additional information concerning the emission inventories.

Facility-wide emissions of TAP from coating operations were not estimated to exceed applicable EL. Facility-wide emissions of TAP from fuel combustion were limited based on establishing an annual facility-wide natural gas usage limitation.

The estimated emission increases of TAP therefore demonstrated preconstruction compliance with TAP standards in accordance with IDAPA 58.01.01.210.08 for controlled average emission rates. Modeling analyses conducted in the development of TAP rules indicates that if a controlled average emission rate is below the applicable EL, controlled ambient concentrations are expected to be below the applicable acceptable ambient concentration. Annual usage of 52.5 MMscf/yr for combustion units (Permit Condition 2.7); daily and annual coating usage limits and formulation requirements for coating materials (Permit Conditions 2.6 and 2.8); and annual usage limits for cutting, welding, and grinding operations (Permit Conditions 3.4 through 3.6) were included in accordance with IDAPA 58.01.01.210.08.c to limit non-HAP TAP emissions from coating operations and to limit TAP emissions from curing, cutting, welding, and grinding operations.

For HAP TAP emissions from coating operations, preconstruction compliance with TAP standards was also demonstrated in accordance with IDAPA 58.01.01.210.20. Coating operations and affected sources are regulated by 40 CFR 63, and requirements from Subpart HHHHHH have been incorporated into the permit (Permit Conditions 2.18 through 2.22). Using this approach allows for some operational flexibility in the use of HAP-containing materials in coating and/or stripping operations (e.g., MeCl). Refer to the MACT Applicability (40 CFR 63) section for addition information.

---

<sup>2</sup> Criteria pollutant thresholds in Table 2, State of Idaho Guideline for Performing Air Quality Impact Analyses, Doc ID AQ-011, September 2013, criteria pollutant BRC levels as defined in IDAPA 58.01.01.221.01, and DEQ guidance pertaining to BRC (2009ACF12).

Air modeling was not performed for this project because the facility-wide emissions for all regulated air pollutants except VOC were below the “below regulatory concern” (BRC) threshold levels of less than 10% of “significant” emission rates for criteria pollutants as defined in IDAPA 58.01.01.006. Modeling of TAP was not conducted because uncontrolled maximum emission rates of each TAP were below applicable screening emission levels (EL) in IDAPA 58.01.01.585–586.

The applicant has demonstrated preconstruction compliance to DEQ’s satisfaction that emissions from this facility will not cause or significantly contribute to a violation of any ambient air quality standard. The applicant has also demonstrated preconstruction compliance to DEQ’s satisfaction that the emissions increase due to this permitting action will not exceed any acceptable ambient concentration (AAC) or acceptable ambient concentration for carcinogens (AACC) for toxic air pollutants (TAP).

## **REGULATORY ANALYSIS**

### ***Attainment Designation (40 CFR 81.313)***

The facility is located in Canyon County, which is designated as attainment or unclassifiable for PM<sub>2.5</sub>, PM<sub>10</sub>, SO<sub>2</sub>, NO<sub>2</sub>, CO, and Ozone. Refer to 40 CFR 81.313 for additional information.

### ***Permit to Construct (IDAPA 58.01.01.201)***

The permittee requested that a PTC be issued to the facility for the proposed emissions sources. Therefore, a permit to construct is issued in accordance with IDAPA 58.01.01.220. This permitting action was processed in accordance with the procedures of IDAPA 58.01.01.200–228.

### ***Tier II Operating Permit (IDAPA 58.01.01.401)***

The application was submitted for a permit to construct (refer to the Permit to Construct section), and an optional Tier II operating permit has not been requested. Therefore, the procedures of IDAPA 58.01.01.400–410 were not applicable to this permitting action.

### ***Title V Classification (IDAPA 58.01.01.300, 40 CFR Part 70)***

Post-project facility-wide emissions from this facility do not have a potential to emit greater than 100 tons per year for criteria pollutants (e.g., PM<sub>2.5</sub>, PM<sub>10</sub>, SO<sub>2</sub>, NO<sub>x</sub>, CO, and VOC) or 10 tons per year for any one HAP or 25 tons per year for all HAP combined (e.g., cumene, ethyl benzene, etc.) as demonstrated in the Emissions Inventories section and in Appendix A. Therefore, the facility is not a Tier I source in accordance with IDAPA 58.01.01.006 and the requirements of IDAPA 58.01.01.301 do not apply.

### ***PSD Classification (40 CFR 52.21)***

The facility is not a major stationary source as defined in 40 CFR 52.21(b)(1), nor is it undergoing any physical change at a stationary source not otherwise qualifying under paragraph 40 CFR 52.21(b)(1) as a major stationary source, that would constitute a major stationary source by itself as defined in 40 CFR 52. Therefore in accordance with 40 CFR 52.21(a)(2), PSD requirements are not applicable to this permitting action. The facility is not a designated facility as defined in 40 CFR 52.21(b)(1)(i)(a), and does not have facility-wide emissions of any criteria pollutant that exceed 250 T/yr.

### ***NSPS Applicability (40 CFR 60)***

The facility is not subject to any NSPS requirements.

### ***NESHAP Applicability (40 CFR 61)***

The facility is not subject to any NESHAP requirements in 40 CFR 61.

## **MACT Applicability (40 CFR 63)**

The facility has proposed to operate as a minor source of hazardous air pollutant (HAP) emissions, and is subject to the requirements of 40 CFR 63, Subpart HHHHHH – National Emission Standards for Hazardous Air Pollutants: Paint Stripping and Miscellaneous Surface Coating Operations at Area Sources. DEQ is/is not delegated this Subpart. Refer to the Title V Classification (IDAPA 58.01.01.300, 40 CFR Part 70) section for additional information.

Coating operations and affected sources as defined in 40 CFR 63.11171 are area sources subject to 40 CFR 63, Subpart HHHHHH. Applicable requirements from Subpart HHHHHH have been incorporated into the permit (Permit Conditions 2.18 through 2.22). Refer to Appendix B for a detailed regulatory analysis of applicable requirements for this subpart.

## **Permit Conditions Review**

This section describes those permit conditions that have been added, revised, modified or deleted as a result of this permitting action.

### Permit Conditions 1.1, 1.2, and 1.3

These permit conditions describe the scope of this permitting action.

### Permit Condition 1.4

This permit condition describes the regulated sources and control equipment.

### Permit Conditions 2.1 and 2.2

These permit conditions describe coating operations, combustion sources, and associated control equipment.

### Permit Condition 2.3

#### *Permit Condition 5 of PTC No. P-2010.0071 PROJ 0001*

This revised permit condition establishes emission limits for PM<sub>2.5</sub> and VOC pollutant emissions from paint booth coating operations, which correspond to the coating material usage rates (Permit Condition 2.6) used in developing the emission inventories. VOC limits were relied upon to demonstrate preconstruction compliance with all TAP EL; and were relied upon to limit HAP and VOC emissions below major source thresholds. PM<sub>10</sub> limits were relied upon to demonstrate preconstruction compliance with BRC levels for PM<sub>2.5</sub> and PM<sub>10</sub>. Limits were based on facility-wide emission rates, and replace VOC limits established in the superseded permit. Refer to the Emissions Inventories and Title V Classification (IDAPA 58.01.01.300, 40 CFR Part 70) sections for additional information).

### Permit Conditions 2.4 and 2.11

These permit conditions incorporate odor emission limits for the facility in accordance with IDAPA 58.01.01.775-776. Compliance is assured by monitoring and responding to odor complaints (Permit Condition 2.11).

### Permit Condition 2.5

#### *Permit Condition 6 of PTC No. P-2010.0071 PROJ 0001*

*Emissions from No. 4 stack (building #5), or any other stack, vent, or functionally equivalent opening associated with the four paint emission sources (Paint Booth No. 1 Prime No. 1 Paint Booth No. 2 Prime No. 2), shall not exceed 20% opacity for a period or periods aggregating more than three minutes in any 60-minute period as required by IDAPA 58.01.01.625. Opacity shall be determined by the procedures contained in IDAPA 58.01.01.625*

This revised permit condition incorporates opacity limits in accordance with IDAPA 58.01.01.625. As provided in the application, all coating operations and associated activities are located in Building 4.

Permit Conditions 2.6 and 2.12

*Permit Condition 9 of PTC No. P-2010.0071 PROJ 0001*

*The combined quantity of paint used within the four paint emission sources (Paint Booth No. 1 Prime No. 1 Paint Booth No. 2 Prime No. 2) shall not exceed 20,905 gallons per year.*

Revised Permit Condition 2.6 limits daily and annual coating material usage rates used in developing TAP and VOC emission inventories, relied upon to demonstrate preconstruction compliance with all TAP EL; and were relied upon to limit HAP and VOC emissions below major source thresholds. Compliance is assured by daily and monthly monitoring of coating material usage rates (Permit Condition 2.12). Limits were based on facility-wide emission rates, and replace usage limits in superseded Permit Condition 9.

Permit Conditions 2.7 and 2.13

These permit conditions limit annual fuel combusted in the curing ovens, wash booth heaters, and air makeup unit. These operating limits were used in developing TAP, HAP, and criteria pollutant emission inventories resulting from fuel combustion; were relied upon to limit criteria pollutant emissions below regulatory concern; were relied upon to demonstrate preconstruction compliance with all TAP EL; and were relied upon to limit HAP and VOC emissions below major source thresholds. Compliance is assured by monthly monitoring of fuel usage rates (Permit Condition 2.13).

Permit Conditions 2.8, 2.14, and 2.15

*Permit Conditions 7, 8, 16, 17, 18, and 19 of PTC No. P-2010.0071 PROJ 0001*

*The daily emission limits (pounds per day [lb/day]) for individual non-carcinogenic toxic air pollutants (TAPs) shall be determined by using the following equation:*

*Non-carcinogenic TAP allowable emissions determination equation*

$$E = S/0.006$$

*Where:*

- E = the total allowable daily emissions in pounds (lb/day)*
- S = Standard, 24-hour acceptable ambient concentration in milligrams per cubic meter (mg/m<sup>3</sup>) from IDAPA 58.01.01.585*
- 0.006 = factor which includes the normalized modeling results and conversion factors*

*The 24-hour non-carcinogenic TAP emissions can not exceed the daily limits which shall be determined using this equation.*

*The daily emission limits (pounds per day [lb/day]) for individual carcinogenic TAPs shall be determined using the following equation:*

*Carcinogenic TAP allowable emissions determination equation*

$$E = S*0.92$$

*Where:*

- E = the total allowable daily emissions in pounds (lb/day)*

- $S$  = Standard, [annual] acceptable ambient concentration for carcinogens in micrograms per cubic meter ( $\mu\text{g}/\text{m}^3$ ) from IDAPA 58.01.01.586
- 0.92 = factor which includes the normalized modeling results and conversion factors

The carcinogenic TAP emissions can not exceed the daily limits which are determined using this equation.

The permittee shall use the equation indicated in PC 8 to generate a list of daily emission rate limits for the TAPs emitted in the Building #5 finishing processes for which a standard in IDAPA 58.01.01.585 applies. Using these emission limits, the permittee shall establish a list of daily product limits (gallons per day [gal/day]) for each non-carcinogenic TAP containing products in the Building #5 finishing process (e.g. paints, primers, etc.). These limitations shall assure that the daily combined product usage will not cause an exceedence of the emissions limits established using the equation indicated in PC 8. The product usage limits must be developed prior to each day's operations. The same list may be used day after day so long as it accounts for all the non-carcinogenic TAP containing products used. The daily products usage limits list shall be made available to DEQ representatives upon request.

The permittee shall use the equation indicated in PC 9 to generate a list of daily emission rate limits for the TAPs emitted in the Building #5 finishing processes for which a standard in IDAPA 58.01.01.586 applies. Using these emission limits, the permittee shall establish a list of daily product limits (gallons per day [gal/day]) for each carcinogenic TAP-containing product in the Building #5 finishing process (e.g. paints, primers, etc.). These limitations must assure that the daily combined product usage will not cause an exceedence of the emissions limits established using the equation indicated in PC 9. The product usage limits must be developed prior to each day's operations. The same list may be used day after day so long as it accounts for all the carcinogenic TAP containing products used.

The permittee shall calculate and record the VOC emissions from the Building #5 finishing processes on a monthly and annual basis using the equations below. Records shall include, but not be limited to, an explanation of the calculation methods, sample calculations, product usage rates, Material Safety Data Sheets, and product VOC concentration. Product shall include, but not be limited to, paints, primers, solvents, and cleaners.

*Monthly VOC Emission Determination Equation*

$$VOC_m = \sum_{i=1}^n (X_i * Y_i)$$

Where:

- $VOC_m$  = monthly VOC emission rate (lb/mo)
- $X_i$  = VOC content of product i (% by weight)
- $Y_i$  = weight of product i used per month (lb/mo)
- $n$  = number of product i used

*Annual VOC Emission Determination Equation*

$$VOC_a = (\sum_{i=1}^n (VOC_m)_i) / 2000$$

Where:

- $VOC_a$  = annual VOC emission rate (T/yr)
- $(VOC_m)_i$  = monthly VOC emission rate for month i

$n$  = number of months

*The permittee shall monitor and record the daily usage of each non-carcinogenic and carcinogenic, if applicable, TAP-containing product in the Building #5 finishing process to demonstrate compliance with the product usage limit established by Permit Conditions 14 and 15 of this permit. The daily paint product usage shall be recorded. Records shall include an explanation of the calculation methods as well as a sample calculation.*

These revised permit conditions describe the coating materials used as the basis of VOC, HAP, and TAP emission estimates, and require additional monitoring and recordkeeping (Permit Conditions 2.14 and 2.15) whenever coating materials are reformulated to assure compliance with emission limits (Permit Condition 2.3) and non-HAP EL in Sections 585 and 586. These additional requirements were only required when any coating materials (Table 2.3) do not conform to the formulations relied upon in the preconstruction compliance demonstrations provided in the application. Because no modeling was relied upon to demonstrate preconstruction compliance with air quality standards (including TAP), these requirements replace the modeling-based monitoring requirements in superseded Permit Conditions 13, 14, and 16 through 19.

#### Permit Condition 2.9

This permit condition requires electrostatic air-assisted spray guns and the booth filter system to be operated at all times when paint booth(s) are operated. The particulate filtration efficiency and the coating transfer efficiency for this control equipment were used in developing the particulate HAP, TAP, PM<sub>2.5</sub>, and PM<sub>10</sub> emission inventories, and were relied upon to demonstrate preconstruction compliance with BRC levels for PM<sub>2.5</sub> and PM<sub>10</sub>.

#### Permit Condition 2.10 (Permit Condition 10 of PTC No. P-2010.0071 PROJ 0001)

This permit condition requires compliance with methods in an O&M manual to assure compliance with General Provision 4.2.

#### Permit Condition 2.16 and 2.17 (Permit Conditions 11, 12, and 15 of PTC No. P-2010.0071 PROJ 0001)

These permit conditions require weekly monitoring of pressure drop across the filters and periodic inspection of the filters. Readings are to be recorded and presented to a DEQ representative upon request to assure compliance with General Provision 4.2.

#### Permit Condition 2.18 through 2.22

These permit conditions incorporate general compliance, notification, recordkeeping, reporting, applicable general provisions, and other requirements from NESHAP Subparts A and HHHHHH. Refer to the NESHAP Applicability (40 CFR 61) section and Appendix B for additional information. Because these requirements were relied upon to demonstrate preconstruction compliance with HAP TAP in accordance with IDAPA 58.01.01.210.20, these requirements should not be removed without evaluation of HAP TAP EL compliance.

#### Permit Conditions 3.1 and 3.2

These permit conditions describe cutting, welding, and grinding operations and associated control equipment.

#### Permit Condition 3.3

This permit condition incorporates opacity limits in accordance with IDAPA 58.01.01.625. As provided in the application, all cutting, welding, and grinding operations are located in Building 6.

#### Permit Conditions 3.4, 3.5, 3.6, 3.8, 3.9, and 3.10

These permit conditions limit annual material cut in the plasma cutters, limit annual welding electrode materials used, and limit annual grinding wheel materials used. These material usage rates were used in developing TAP, HAP, and criteria pollutant emission inventories; were relied upon to limit PM<sub>2.5</sub> and PM<sub>10</sub> emissions below regulatory concern; were relied upon to demonstrate preconstruction compliance with all TAP EL; and were relied upon to limit HAP and VOC emissions below major source thresholds. Compliance is assured by monthly monitoring of material usage rates (Permit Conditions 3.8, 3.9, and 3.10).

### Permit Condition 3.7

This permit condition requires the Plasma Cutter (PC-1) Filtration System to be operated at all times when the Plasma Cutter (PC-1) is operated. The particulate filtration efficiency for this control equipment was used in developing the particulate HAP, TAP, PM<sub>2.5</sub>, and PM<sub>10</sub> emission inventories, and was relied upon to demonstrate preconstruction compliance with BRC levels for PM<sub>2.5</sub> and PM<sub>10</sub>.

### General Provision 4.1

The duty to comply general compliance provision requires that the permittee comply with all of the permit terms and conditions pursuant to Idaho Code §39-101.

### General Provision 4.2

The maintenance and operation general compliance provision requires that the permittee maintain and operate all treatment and control facilities at the facility in accordance with IDAPA 58.01.01.211.

### General Provision 4.3

The obligation to comply general compliance provision specifies that no permit condition is intended to relieve or exempt the permittee from compliance with applicable state and federal requirements, in accordance with IDAPA 58.01.01.212.01.

### General Provision 4.4

The inspection and entry provision requires that the permittee allow DEQ inspection and entry pursuant to Idaho Code §39-108.

### General Provision 4.5

The permit expiration construction and operation provision specifies that the permit expires if construction has not begun within two years of permit issuance or if construction has been suspended for a year in accordance with IDAPA 58.01.01.211.02.

### General Provision 4.6

The notification of construction and operation provision requires that the permittee notify DEQ of the dates of construction and operation, in accordance with IDAPA 58.01.01.211.03.

### General Provision 4.7

The performance testing notification of intent provision requires that the permittee notify DEQ at least 15 days prior to any performance test to provide DEQ the option to have an observer present, in accordance with IDAPA 58.01.01.157.03.

### General Provision 4.8

The performance test protocol provision requires that any performance testing be conducted in accordance with the procedures of IDAPA 58.01.01.157, and encourages the permittee to submit a protocol to DEQ for approval prior to testing.

### General Provision 4.9

The performance test report provision requires that the permittee report any performance test results to DEQ within 60 days of completion, in accordance with IDAPA 58.01.01.157.04-05.

### General Provision 4.10

The monitoring and recordkeeping provision requires that the permittee maintain sufficient records to ensure compliance with permit conditions, in accordance with IDAPA 58.01.01.211.

#### General Provision 4.11

The excess emissions provision requires that the permittee follow the procedures required for excess emissions events, in accordance with IDAPA 58.01.01.130-136. Any periods during which spray painting is conducted while the relevant paint booth filtration system is not operated (e.g., including during periods of shutdown, scheduled maintenance, upset, or breakdown) are considered excess emissions events for which these procedures shall be followed.

#### General Provision 4.12

The certification provision requires that a responsible official certify all documents submitted to DEQ, in accordance with IDAPA 58.01.01.123.

#### General Provision 4.13

The false statement provision requires that no person make false statements, representations, or certifications, in accordance with IDAPA 58.01.01.125.

#### General Provision 4.14

The tampering provision requires that no person render inaccurate any required monitoring device or method, in accordance with IDAPA 58.01.01.126.

#### General Provision 4.15

The transferability provision specifies that this permit to construct is transferable, in accordance with the procedures of IDAPA 58.01.01.209.06.

#### General Provision 4.16

The severability provision specifies that permit conditions are severable, in accordance with IDAPA 58.01.01.211.

## **PUBLIC REVIEW**

### ***Public Comment Opportunity***

An opportunity for public comment period on the application was provided in accordance with IDAPA 58.01.01.209.01.c. During this time, there were no comments on the application and there was not a request for a public comment period on DEQ's proposed action. Refer to the Application Chronology section for public comment opportunity dates.

## APPENDIX A – EMISSION INVENTORIES

Circle J Trailers, Inc.  
Potential Emissions Summary  
Air Emissions Inventory

EU	EPN	VOCs			NO <sub>x</sub>			NO <sub>2</sub>			CO			PM <sub>2.5</sub>			PM <sub>10</sub>			SO <sub>2</sub>			HAPs			Pb				
		lb/hr	tpy	Exempt Solvent	lb/hr	tpy	lb/hr	tpy	lb/hr	tpy	lb/hr	tpy	lb/hr	tpy	lb/hr	tpy	lb/hr	tpy	lb/hr	tpy	lb/hr	tpy	lb/hr	tpy	lb/month	tpy				
PB1	PB1a	13.383	16.385	3.420	0.392	0.880	0.024	0.735	0.329	0.624	0.030	0.075	0.002	0.006	0.010	0.008	0.010	0.008	0.010	0.008	0.010	0.002	0.006	0.008	0.010	0.008	1.684	1.684	1.684	1.684
	PB1b	13.383	16.385	3.420	0.017	0.043	0.001	0.032	0.014	0.036	0.001	0.003	0.000	0.000	0.008	0.008	0.010	0.008	0.010	0.008	0.010	0.002	0.006	0.008	0.010	0.008	1.684	1.684	1.684	1.684
	PB2a	13.383	16.385	3.420	0.017	0.043	0.001	0.032	0.014	0.036	0.001	0.003	0.000	0.000	0.008	0.008	0.010	0.008	0.010	0.008	0.010	0.002	0.006	0.008	0.010	0.008	1.684	1.684	1.684	1.684
PB3	PB3a	13.383	16.385	3.420	0.017	0.043	0.001	0.032	0.014	0.036	0.001	0.003	0.000	0.000	0.008	0.008	0.010	0.008	0.010	0.008	0.010	0.002	0.006	0.008	0.010	0.008	1.684	1.684	1.684	1.684
	PB3b	13.383	16.385	3.420	0.017	0.043	0.001	0.032	0.014	0.036	0.001	0.003	0.000	0.000	0.008	0.008	0.010	0.008	0.010	0.008	0.010	0.002	0.006	0.008	0.010	0.008	1.684	1.684	1.684	1.684
	AMU1	0.022	0.054		0.392	0.880	0.024	0.735	0.329	0.624	0.030	0.075	0.002	0.006	0.010	0.008	0.010	0.008	0.010	0.008	0.010	0.002	0.006	0.008	0.010	0.008	1.684	1.684	1.684	1.684
WB1	WB1a	0.001	0.002		0.017	0.043	0.001	0.032	0.014	0.036	0.001	0.003	0.000	0.000	0.008	0.008	0.010	0.008	0.010	0.008	0.010	0.002	0.006	0.008	0.010	0.008	1.684	1.684	1.684	1.684
	WB1b	0.001	0.002		0.017	0.043	0.001	0.032	0.014	0.036	0.001	0.003	0.000	0.000	0.008	0.008	0.010	0.008	0.010	0.008	0.010	0.002	0.006	0.008	0.010	0.008	1.684	1.684	1.684	1.684
	WB2	0.001	0.002		0.017	0.043	0.001	0.032	0.014	0.036	0.001	0.003	0.000	0.000	0.008	0.008	0.010	0.008	0.010	0.008	0.010	0.002	0.006	0.008	0.010	0.008	1.684	1.684	1.684	1.684
CO1	CO1	0.001	0.002		0.017	0.043	0.001	0.032	0.014	0.036	0.001	0.003	0.000	0.000	0.008	0.008	0.010	0.008	0.010	0.008	0.010	0.002	0.006	0.008	0.010	0.008	1.684	1.684	1.684	1.684
	CO2	0.016	0.040		0.284	0.735	0.018	0.581	0.247	0.518	0.022	0.056	0.002	0.004	0.008	0.008	0.010	0.008	0.010	0.008	0.010	0.002	0.006	0.008	0.010	0.008	1.684	1.684	1.684	1.684
	CO2	0.016	0.040		0.792	0.594	0.063	0.048	0.247	0.518	0.022	0.056	0.002	0.004	0.008	0.008	0.010	0.008	0.010	0.008	0.010	0.002	0.006	0.008	0.010	0.008	1.684	1.684	1.684	1.684
PC1	PC1	0.016	0.040		0.317	0.475	0.025	0.088			0.085	0.127	0.085	0.127	0.179	0.134	0.179	0.134	0.179	0.134	0.085	0.127	0.085	0.127	0.179	0.134	0.179	0.134	0.179	
	PC2-9																													
	MG1-16																													
WELD1-68	WELD1-68																													
	Facility-wide Total	80.35	98.45	55.04	2.16	3.69	0.15	2.05	0.88	2.20	0.130	0.390	0.01	0.024	0.008	0.024	0.008	0.024	0.008	0.024	0.008	0.024	0.008	0.024	0.008	0.024	0.008	0.024	0.008	0.024
	Below Regulatory Concern(1)	NA	4.00	NA	NA	4.00	NA	4.00	NA	10.00	NA	1.50	4.00	NA	4.00	NA	4.00	NA	4.00	NA	4.00	NA	4.00	NA	4.00	NA	4.00	NA	4.00	NA
BRC?	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Note: PM = PM10, PM 2.5  
 1) BRC, or below regulatory concern levels were calculated as 10% of the significant emissions rates as defined in 10AFA 58.01.01.006 (101) a) (1)(1)(1)(1) & (1)(1).  
 2) Individual HAPs are less than

Circle J Trailers, Inc.  
**IDEQ Screening Emissions Levels and Acceptable Ambient Concentration  
 Air Emissions Inventory**

CAS NO.	INGREDIENT NAME	SCREENING EMISSIONS LEVELS (EL) [lb/hr]	CAS NO.	INGREDIENT NAME	Acceptable Ambient Concentration (AAC) [mg/m <sup>3</sup> ]
67-64-1	Acetone	119	67-64-1	Acetone	89
123-86-4	Butyl Acetate	47.3	123-86-4	Butyl Acetate	35.5
98-82-8	Cumene	16.3	98-82-8	Cumene	12.25
100-41-4	Ethylbenzene	29	100-41-4	Ethylbenzene	21.75
110-43-0	Methyl-amyyl Ketone	15.7	110-43-0	Methyl-amyyl Ketone	11.75
142-82-5	Heptane	109	142-82-5	Heptane	82
64-17-5	Ethanol	125	64-17-5	Ethanol	94
67-56-1	Methanol	17.3	67-56-1	Methanol	13
8052-413	Stoddard Solvent	35	8052-413	Stoddard Solvent	26.25
78-83-1	Isobutyl Alcohol	10	78-83-1	Isobutyl Alcohol	6
1477-55-0	m-Xylene a, a-diamine (CL)	0.0007	1477-55-0	m-Xylene a, a-diamine (CL)	0.0005
67-63-0	Isopropyl Alcohol	65.3	67-63-0	Isopropyl Alcohol	49
78-93-3	Methylethyl Ketone	39.3	78-93-3	Methylethyl Ketone	29.5
108-10-1	Methyl Isobutyl Ketone	13.7	108-10-1	Methyl Isobutyl Ketone	10.25
110-43-0	Methyl N-Amyl Ketone	15.7	110-43-0	Methyl N-Amyl Ketone	11.75
108-88-3	Toluene	25	108-88-3	Toluene	18.75
25551-13-7	Trimethylbenzene	8.2	25551-13-7	Trimethylbenzene	6.15
71-36-3	N-Butyl Alcohol	10	71-36-3	N-Butyl Alcohol	7.5
1330-20-7	Xylene	29	1330-20-7	Xylene	21.75
108-83-8	Diisobutyl Ketone	9.67	108-83-8	Diisobutyl Ketone	7.25
91-20-3	Naphthalene	3.33	91-20-3	Naphthalene	2.5
14809-60-7	Silica, Crystalline	0.0067	14809-60-7	Silica, Crystalline	0.005
67-64-1	Dimethyl Ketone-Exempt Solvent	119	67-64-1	Dimethyl Ketone-Exempt Solvent	89
112-07-2	Ethylene Glycol Monobutyl ether Acetate	8.33	112-07-2	Ethylene Glycol Monobutyl ether Acetate	1.25
67-56-1	Methyl Alcohol	17.3	67-56-1	Methyl Alcohol	13
8052-41-3	Petroleum Distillates	35	8052-41-3	Petroleum Distillates	26.25
108-65-6	Propyleneglycol Monomethyl ether Acetate	25	108-65-6	Propyleneglycol Monomethyl ether Acetate	3.6
1333-86-4	Carbon Black	0.23	1333-86-4	Carbon Black	0.175
131-13-2	Zinc Oxide	0.333	131-13-2	Zinc Oxide	0.05
7429-90-5	Aluminum	0.667	7429-90-5	Aluminum	0.5
7439-96-5	Manganese Compounds	0.333	7439-96-5	Manganese Compounds	0.25
111-76-2	Ethylene Glycol Monobutyl Ether	8	111-76-2	Ethylene Glycol Monobutyl Ether	6

Prepared by:  
 KJ Environmental Mgt., Inc.  
 500 Messey Road  
 Cross Roads, TX 76227  
 (940) 387-0805

Circle J Trailers, Inc.  
HAP Emissions Summary  
Air Emissions Inventory

	Cumene 98-82-8		Ethyl Benzene 100-41-4		Methyl Isobutyl/ Ketone 108-10-1		Toluene 108-88-3		Xylene 1330-20-7		Naphthalene 91-20-3		Chromium Compounds		Manganese Compounds		Nickel Compounds		Phosphorus Compounds		Cobalt Compounds		Lead Compounds		
	lb/hr	tpy	lb/hr	tpy	lb/hr	tpy	lb/hr	tpy	lb/hr	tpy	lb/hr	tpy	lb/hr	tpy	lb/hr	tpy	lb/hr	tpy	lb/hr	tpy	lb/hr	tpy	lb/hr	tpy	
EPN	0.051	0.062	0.025	0.030	0.096	0.118	0.188	0.230	0.172	0.211	0.159	0.195													
PB1a	0.051	0.062	0.025	0.030	0.096	0.118	0.188	0.230	0.172	0.211	0.159	0.195													
PB1b	0.051	0.062	0.025	0.030	0.096	0.118	0.188	0.230	0.172	0.211	0.159	0.195													
PB2a	0.051	0.062	0.025	0.030	0.096	0.118	0.188	0.230	0.172	0.211	0.159	0.195													
PB2b	0.051	0.062	0.025	0.030	0.096	0.118	0.188	0.230	0.172	0.211	0.159	0.195													
PB3a	0.051	0.062	0.025	0.030	0.096	0.118	0.188	0.230	0.172	0.211	0.159	0.195													
PB3b	0.051	0.062	0.025	0.030	0.096	0.118	0.188	0.230	0.172	0.211	0.159	0.195													
AMU1																									
WB1a																									
WB1b																									
WB2a																									
WB2b																									
CO1																									
CO2																									
PC1-9														0.000	0.000	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
GW1-16														0.000	0.000	0.008	0.024	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
WELD1-68														0.000	0.000	0.008	0.024	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
INDIVIDUAL TOTALS	0.31	0.37	0.15	0.18	0.58	0.71	1.13	1.38	1.03	1.27	0.95	1.17	0.00	0.00	0.01	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
MAX HAPS (LB/HR)																									
MAX HAPS (TPY)																									

MAX HAPS (LB/HR)	4.16
MAX HAPS (TPY)	5.11

Prepared by:  
KJ Environmental Mgt., Inc.  
500 Moseley Road  
Cross Roads, TX 76227  
(840) 387-4805



Table 1a - Actual Speciated Coating Emissions

Circle J Trailers  
HAPs, TAPs, and Other Constituents  
EU: PB1, PB2, PB3

Circle J Trailers, Inc.														
Paint TAP Emissions Calculations														
VALSTAR Product #	Description	2015 Usage	50% Buffer	Density (lb/gal)	VOC Content (lb/gal)	Emission lbs. of VOC	11-2-2016		11-2-2017		11-2-2018		Total Lib. 2016-2018	
							Total Lib.							
65XN1651	Component B1 Urethane Catalyst	27015	4057.2	8.94	2.23	10724.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
35XN9282000	Low HARS Cat Yellow Primer	55	82.5	10.29	4.42	364.65	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
40010100162.076	Universal Blend RUC	-66.602	70.038	5.83	5.27	-369.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
700107895	Gloss Black Low HAPS Acrylic	575	862.5	8.34	4.06	3501.75	14.39	135.95	10.07	0.00	0.00	0.00	0.00	
71-X255A	Urethane Inhibitor	0	0	8.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
71-X255A	Photoinitiator	0	0	8.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
ASX048X	Low HARS AD Primer	280	470	11.21	3.40	3128.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
CR0101	R-Cure 200 Epoxy Primer Clear Agent	10259	1543.5	8.14	5.80	8952.30	1314.20	0.00	0.00	0.00	0.00	0.00	6.12	
69A021	R-Cure 200 Primer AD/EP Black Epoxy	8090	12135	11.73	3.62	43928.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
KPA0997	Black Urethane R-Cure 800	6500	9240	8.46	3.45	3342.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
69A021	Black Urethane R-Cure 800	6500	9240	8.46	3.45	3342.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
K2PM0106	Abrasion Resistant Metallic	40	90	8.46	3.47	334.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
K2PM0201	Storm Gray Pearl Metallic R-Cure 800	76	114	8.45	3.26	383.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
K2PM0259	Mocho Steel Metallic R-Cure 800	4	6	8.53	3.29	19.74	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
K3007297	Fluors Red R-Cure	32	48	8.80	3.11	309.28	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
K3007297	Fluors Red R-Cure	32	48	8.80	3.11	309.28	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
K300475	GM Fleet White R-Cure	26	39	11.06	3.15	322.67	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
K300475	GM Fleet White R-Cure	26	39	11.06	3.15	322.67	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
K300675	Safety Yellow Urethane R-Cure	31	46.5	9.29	3.15	146.48	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
AS02124	Universal Blending Solvent	1701	166.1	7.17	6.94	1334.13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
U3004005	Melan Urethane Epoxy Resin	1700	2640	7.55	7.55	19043.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
U3004005	Melan Urethane Epoxy Resin	1700	2640	7.55	7.55	19043.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
WR200109	Stow Urethane / Epoxy	650	975	7.24	7.24	7059.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
U3004005	Waldburns Underbody	1272	1908	9.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
U3004005	Fast Exempt Reducer	7544	1868	6.59	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
U3004005	Fast Exempt Reducer	7544	1868	6.59	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Annual Total (gal)							141,080.50	1,378.06	14.23	994.25	754.48	1,401	74.83	1,282.10
Annual Total (lbs)							576.84	1.46	0.01	8.59	0.38	0.00	0.64	0.63
Annual Total (lb/ton)							4.09	0.01	0.00	0.06	0.00	0.00	0.00	0.00
Combined TAPs (tons)							5.63							
Combined HAPs from Paint (tons)														



**Table 1b - Maximum Coating Emissions**

Circle J Trailers  
 Short-Term & Annual VOC, Exempt Solvent, & PM Emissions  
 Primer, Topcoat, & Thinner  
 EU: PB1, PB2, PB3

Parameters	Data	Units	Information Source
Maximum Application Rate	15.50	gal/hr	Circle J Trailers (All Liquid Coating Booths)
Annual Usage	37,954	gal/yr	Circle J Trailers (All Liquid Coating Booths)
Maximum Coating Density	11.00	lbs/gal	As-Applied Contents - See Topcoat and Primer Data
Maximum VOC Content (Short-Term)	5.18	lbs/gal	As-Applied Contents - See Topcoat and Primer Data
Maximum VOC Content (Annual)	5.18	lbs/gal	As-Applied Contents - See Topcoat and Primer Data
Minimum VOC Content	0.00	lbs/gal	As-Applied Contents - See Topcoat and Primer Data
Maximum Exempt Solvent Content (Short-Term)	1.00	lbs/gal	As-Applied Contents - See Topcoat and Primer Data
Maximum Exempt Solvent Content (Annual)	1.00	lbs/gal	As-Applied Contents - See Topcoat and Primer Data
VOC Control Efficiency	0.00%	-	Applicant Request - Coating Flexibility
Percent Overspray	20.00%	-	No Additional Control
Transfer Efficiency (Electrostatic)	80.00%	-	Circle J Trailers
VOC Flash-Off	100.00%	-	Electrostatic Guns
Filter Efficiency- Booth	99.53%	-	Conservative Estimate
PM <sub>10</sub> FallOut	90.00%	-	Filterair
PM <sub>2.5</sub> FallOut	90.00%	-	Engineering Judgement
	90.00%	-	Engineering Judgement

**Total Emissions -**

	Short-Term				Total VOC Emissions (lbs/hr)
	Spray Rate (gal/hr)	Max VOC Content (lbs/gal)	VOC Flash-Off (%)	(1- VOC Control Eff.) (%)	
VOC Emissions	15.50	5.18	100.00%	100.00%	80.30
Exempt Solvent	15.50	1.00	100.00%	100.00%	15.50
PM Emissions <sup>1,2</sup>	15.50	11.00	20.00%	0.47%	10.00%
PM <sub>10</sub> Emissions <sup>1,2</sup>	15.50	11.00	20.00%	0.47%	10.00%
PM <sub>2.5</sub> Emissions <sup>1,2</sup>	15.50	11.00	20.00%	0.47%	10.00%

	Annual				Total VOC Emissions (tons/yr)
	Spray Rate (gal/yr)	Max VOC Content (lbs/gal)	VOC Flash-Off (%)	(1- VOC Control Eff.) (%)	
VOC Emissions	37,954	5.18	100.00%	100.00%	98.31
Exempt Solvent	37,954	1.00	100.00%	100.00%	18.98
PM Emissions <sup>1,2</sup>	37,954	11.00	20.00%	0.47%	10.00%
PM <sub>10</sub> Emissions <sup>1,2</sup>	37,954	11.00	20.00%	0.47%	10.00%
PM <sub>2.5</sub> Emissions <sup>1,2</sup>	37,954	11.00	20.00%	0.47%	10.00%

**Notes:**

- Booths have 100 % capture efficiency and all PM emissions are exhausted through the booth stacks.
- Booth doors remain closed during all coating and solvent cleaning operations.



**Table 2 - Short-Term & Annual Clean-Up Emissions**

Circle J Trailers  
EU: PB1, PB2, PB3

Parameters	Data	Units	Information Source
Maximum Hourly Usage Rate	6.00	gal/hr	Circle J
Annual Usage	466.50	gal/yr	Circle J
Maximum Solvent Density	6.59	lbs/gal	Acetone
Maximum VOC Content (Short-Term)	0.00	lbs/gal	Acetone - Exempt Solvent
Maximum VOC Content (Annual)	0.00	lbs/gal	Acetone - Exempt Solvent
Maximum Exempt Solvent Content (Short-Term)	6.59	lbs/gal	Acetone - Exempt Solvent
Maximum Exempt Solvent Content (Annual)	6.59	lbs/gal	Acetone - Exempt Solvent
VOC Control Efficiency	0.00%	-	NO Additional Add on Control

**Note:**

**Total Emissions -**

<b>Short-Term</b>			
	Usage Rate (gal/hr)	Max VOC Content (lbs/gal)	(1- VOC Control Eff.) (%)
VOC Emissions	6.00	0.00	100.00%
	x	x	
=			Total VOC Emissions (lbs/hr)
			0.00
Exempt Solvent	6.00	6.59	100.00%
	x	x	
=			Total Exempt Solvent Emissions (lbs/hr)
			39.54
<b>Annual</b>			
	Usage Rate (gal/yr)	Max VOC Content (lbs/gal)	(1- VOC Control Eff.) (%)
VOC Emissions	467	0.00	100.00%
	x	x	
=			Total VOC Emissions (tons/yr)
			0.00
Exempt Solvent	164	6.59	100.00%
	x	x	
=			Total Exempt Solvent Emissions (tons/yr)
			1.54

**Notes:**

1. All clean-up is performed inside the coating booths.
2. Booth doors remain closed during spray gun equipment clean-up operations.
3. Because solvent recovered from clean-up operations is used in thinning in the undercoating application, the Maximum Hourly and Annual Usage Rates are based on 25% of total solvent used.



Table 3c - Primer Full-Speciation - Maximum Short-Term Emissions

Circle J Trailers  
EU: PB1, PB2, PB3

"Maximum As-Applied Weight" is the maximum summation of all common constituents between Part A & Part B

Example Volatile Ingredient Species Emission Rate: Ethylbenzene  
(Max. As-Applied Wt. 0.00958 lbs/gal) x (Max. Spray Rate 56.28 gal/hr) x (VOC Flashoff 100%) = 0.539 lbs Ethylbenzene/hr

Example Particulate Ingredient Species Emission Rate: Zinc Oxide  
(Max. As-Applied Wt. 0.01171 lbs/gal) x (Max. Spray Rate 56.28 gal/hr) x (1 - Transfer Efficiency 80%) x (1 - Filter Efficiency 99%) x (1 - PM Fallout 10%) = 0.0002 lbs Zinc Oxide/hr

PRIMER - MAXIMUM SPECIES HOURLY EMISSIONS RATE				
CAS Number	SPECIATION / INGREDIENT NAME	INGREDIENT TYPE	MAXIMUM AS-APPLIED WEIGHT (lbs/gal)	TOTAL EMISSION RATE
100-41-4	ETHYLBENZENE	V	0.017	0.149
108-10-1	METHYL ISOBUTYL KETONE	V	0.037	0.579
108-85-6	PROPYLENEGLYCOL MONOMETHYL ETHER ACETATE	V	0.024	0.379
108-83-8	DIISOBUTYL KETONE	V	0.001	0.017
108-88-3	TOLUENE	V	0.001	0.017
110-43-0	METHYL N-AMYL KETONE	V	0.072	1.122
111-78-2	Ethylene Glycol Monobutyl Ether	V	0.013	0.205
111-77-3	DIETHYLENE GLYCOL MONOMETHYL ETHER	V	0.003	0.047
123-88-4	BUTYL ACETATE	P	1.608	24.925
1314-13-2	ZINC OXIDE*	P	0.025	0.000
1317-85-3	LIMESTONE	P	2.640	0.004
1330-20-7	XYLENE	V	0.063	0.975
1333-86-4	C.I. PIGMENT BLACK7	P	0.146	0.000
8052-41-3	Standard Solvent	V	0.007	0.116
13883-17-0	MOLLASTONITE*	P	0.445	0.001
14805-82-7	SILICA*	P	0.002	0.000
18548-80-5	4,5-DIMETHYLHEPTAN-2-ONE	V	0.001	0.017
25036-25-3	EPOXY RESIN (MOL. WT > 1100)	P	1.304	0.002
37244-98-5	NEPHELINE SYENITE	P	1.469	0.002
64742-47-8	MINRAL SPIRITS	V	0.014	0.221
64742-46-9	NAPHTHA	V	0.006	0.095
64742-88-8	NAPHTHA	V	0.747	11.585
64742-84-5	AROMATIC NAPHTHA, HEAVY	V	0.163	2.993
64742-85-6	AROMATIC NAPHTHA, LIGHT	V	1.030	15.964
67895-52-0	EPOXY ESTER	P	0.677	0.001
7779-90-0	ZINC PHOSPHATE*	P	0.455	0.001
78-83-1	ISOBUTYL ALCOHOL	P	0.013	0.203
78-83-3	METHYL ETHYL KETONE	V	0.806	12.495
81-20-3	NAPHTHALENE	V	0.035	0.542
85-83-6	1,2,4-TRIMETHYL BENZENE	V	0.515	7.987
85-29-7	2-BUTANONE OXIME	V	0.022	0.348
98-62-8	CUMENE	V	0.018	0.275
136-52-7	Coibit Octoate	P	0.014	0.000
27253-32-3	NOBECANOIC ACID, MANGANESE SALT	P	0.013	0.000
15656-58-8	Manganese Octoate	P	0.013	0.000
UNKNOWN	ALUMINIUM ORTHOPHOSPHATE HYDRATE	P	0.125	0.000
UNKNOWN	UNKNOWN COPOLYMER	P	0.048	0.000
UNKNOWN	ADDITIVE, VISCOSITY CONTROL	P	0.026	0.000
UNKNOWN	UNSATURATED POLYCARBOXYLIC ACID	P	0.018	0.000
UNKNOWN	UNKNOWN NON-HAZARDOUS MATERIAL	P	0.002	0.000
100-51-6	BENZYL ALCOHOL	V	0.174	2.700
1477-55-0	M-XYLENEDIAMINE	P	0.077	0.000
57244-16-5	FORMALDEHYDE POL. WITH 1,3-BENZENEDIMETHANAMINE AND PHENOL	P	0.135	0.000
71-35-3	N-BUTYL ALCOHOL	V	0.077	1.200
<b>THINNER</b>				
108-88-3	TOLUENE	V	0.072	1.113
123-86-4	BUTYL ACETATE	V	0.156	2.415
1330-20-7	XYLENE	V	0.004	0.059
64742-95-6	AROMATIC NAPHTHA, LIGHT	V	0.112	1.742
763-69-9	ETHYL 3-ETHOXYPROPIONATE	V	0.220	3.411
78-83-3	METHYL ETHYL KETONE	V	0.114	1.761
95-83-6	1,2,4-TRIMETHYLBENZENE	V	0.056	0.861
98-82-8	CUMENE	V	0.002	0.030

Example Volatile Ingredient Species Emission Rate: Toluene  
(Max. As-Applied Wt. 0.072 lbs/gal) x (Max. Spray Rate 56.28 gal/hr) x (VOC Flashoff 100%) = 4.041 lbs Toluene/hr

Prepared by:  
KJ Environmental Mgmt., Inc.  
500 Moseley Road  
Cross Roads, TX 76227  
Phone: (940) 387-0805

Table 6c - Maximum Short-Term Speciated Primer Screening Emissions Levels Calculations  
Circle J Trailers  
ESL Review of Short-Term VOC, Silica, & Metal-Compound Emissions

SOURCE WORST-CASE MODELED UNIT IMPACT (ug/m<sup>3</sup>/lb/hr)

EPN: CB-1 Maximum Concentration - SCREEN3
--

Notes:

- Unit Impact Multiplier (ug/m<sup>3</sup>/lbs/hr) was obtained via AirScreen
- Total Rate & GLC are calculated by taking the value of the Total Emission Rate for all three liquid coating booths (lbs/hr) and multiplying that value by the product of the Unit Impact Multiplier (ug/m<sup>3</sup>/lb/hr).
- ESL list was updated on June 5, 2015 according to IDAPA 89.01.01 Rules for the Control of Air Pollution in Idaho
- The summation of common constituents between the coating and the thinner are included the Total Emission Rate EPN: CB-1 and highlighted in orange.

Example Calculation - Ethylbenzene Off-Site GLC: (Ethylbenzene Emission Rate 0.539 lbs/hr) x (Max. Concentration 14.11 ug/m<sup>3</sup>/lbs/hr) = 6.7593 ug/m<sup>3</sup> Ethylbenzene

PRIMERS

CAS #	INGREDIENT NAME	INGREDIENT TYPE	TOTAL EMISSION RATE	Short-Term Volatile & Particulate Total Emission Rates		Total Rate & GLC	Screening Emissions Levels (lb/hr)	Emission Rate (lb/hr)	CUMULATIVE PRODUCTION OF EL	TOTAL LESS THAN EL (TN)	Refined Modeling Necessary?	Acceptable Ambient Concentration AAC (mg/m <sup>3</sup> )	TOTAL OFF-SITE GLCs EPN: CB-1 (mg/m <sup>3</sup> )	CUMULATIVE FRACTION OF AAC	TOTAL LESS THAN AAC (TN)
				Spray Booth GLCs (ug/m <sup>3</sup> )	Spray Booth GLCs (ug/m <sup>3</sup> )										
100-41-4	ETHYLBENZENE	V	0.148	0.000	0.148	29	0.148	0.005	YES	NO	21.75	NA	NA	NA	NA
108-10-1	METHYL ISOBUTYL KETONE	V	0.578	0.000	0.578	13.7	0.578	0.042	YES	NO	10.29	NA	NA	NA	NA
108-88-6	PROPYLENEGLYCOL MONOMETHYL ETHER ACETATE	V	0.217	0.000	0.217	4.7	0.217	0.015	YES	NO	7.26	NA	NA	NA	NA
108-88-3	DIETHYLENE GLYCOL MONOMETHYL ETHER	V	1.130	0.000	1.130	25	1.130	0.045	YES	NO	18.75	NA	NA	NA	NA
110-43-0	METHYL N-AMYL KETONE	V	1.122	0.000	1.122	15.7	1.122	0.071	YES	NO	11.75	NA	NA	NA	NA
111-75-2	Ethylhexyl Glycol Monobutyl Ether	V	0.205	0.000	0.205	NONE	0.205	0.028	YES	NO	NONE	NA	NA	NA	NA
128-85-4	DIETHYLENE GLYCOL MONOMETHYL ETHER	V	27.340	0.000	27.340	47.3	27.340	0.578	YES	NO	36.5	NA	NA	NA	NA
131-41-3	ZINC OXIDE*	P	0.000	0.000	0.000	0.333	0.000	0.000	YES	NO	0.65	NA	NA	NA	NA
131-45-3	LIMESTONE	P	0.004	0.000	0.004	NONE	0.004	NA	YES	NO	NONE	NA	NA	NA	NA
133-45-4	GL PIGMENT BLACK 7	P	0.000	0.000	0.000	0.2	0.000	0.000	YES	NO	0.175	NA	NA	NA	NA
13653-17-0	WOLLASTONITE*	P	0.001	0.000	0.001	35	0.116	0.003	YES	NO	24.25	NA	NA	NA	NA
13658-85-7	4-ETHYLBENZYLHEPTAN-2-ONE	P	0.017	0.000	0.017	NONE	0.017	NA	YES	NO	NONE	NA	NA	NA	NA
20082-95-3	NEPHELINE SYENITE	P	0.002	0.000	0.002	NONE	0.002	NA	YES	NO	NONE	NA	NA	NA	NA
64742-47-8	EPOXY RESIN (MOL WT=1100)	P	0.221	0.000	0.221	NONE	0.221	NA	YES	NO	NONE	NA	NA	NA	NA
64742-94-5	MINERAL SPIRITS	V	11.555	0.000	11.555	NONE	11.555	NA	YES	NO	NONE	NA	NA	NA	NA
64742-94-5	NAPHTHA	V	2.863	0.000	2.863	NONE	2.863	NA	YES	NO	NONE	NA	NA	NA	NA
64742-94-5	AROMATIC NAPHTHA, HEAVY	V	17.706	0.000	17.706	NONE	17.706	NA	YES	NO	NONE	NA	NA	NA	NA
78-08-1	ZINC PHTHALATE*	P	0.001	0.000	0.001	NONE	0.001	NA	YES	NO	NONE	NA	NA	NA	NA
78-08-1	ZINC PHTHALATE*	P	0.203	0.000	0.203	10	0.203	0.020	YES	NO	6	NA	NA	NA	NA
78-08-1	ISOBUTYL ALCOHOL	V	14.259	0.000	14.259	39.3	14.259	0.363	YES	NO	29.5	NA	NA	NA	NA
78-08-1	METHYL ETHYL KETONE	V	0.542	0.000	0.542	NONE	0.542	0.043	YES	NO	NONE	NA	NA	NA	NA
81-20-3	1,2-DIBROMOETHANE	V	0.348	0.000	0.348	NONE	0.348	NA	YES	NO	NONE	NA	NA	NA	NA
86-28-7	2-BUTANONE OXIME	V	0.305	0.000	0.305	18.3	0.305	0.019	YES	NO	12.25	NA	NA	NA	NA
88-00-9	CUMENE	V	0.000	0.000	0.000	NONE	0.000	NA	YES	NO	NONE	NA	NA	NA	NA
88-00-9	Cumene	V	0.000	0.000	0.000	NONE	0.000	NA	YES	NO	NONE	NA	NA	NA	NA
138-57-7	Calcium Oxide	P	0.000	0.000	0.000	0.333	0.000	0.000	YES	NO	0.25	NA	NA	NA	NA
1585-28-8	NOBECRYL	P	0.000	0.000	0.000	NONE	0.000	NA	YES	NO	NONE	NA	NA	NA	NA
1585-28-8	NOBECRYL	P	0.000	0.000	0.000	NONE	0.000	NA	YES	NO	NONE	NA	NA	NA	NA
1585-28-8	NOBECRYL	P	0.000	0.000	0.000	NONE	0.000	NA	YES	NO	NONE	NA	NA	NA	NA
UNKNOW	ALUMINUM ORTHOPHOSPHATE HYDRATE	P	0.000	0.000	0.000	NONE	0.000	NA	YES	NO	NONE	NA	NA	NA	NA
UNKNOW	UNKNOW COPOLYMER	P	0.000	0.000	0.000	NONE	0.000	NA	YES	NO	NONE	NA	NA	NA	NA
UNKNOW	UNKNOW COPOLYMER	P	0.000	0.000	0.000	NONE	0.000	NA	YES	NO	NONE	NA	NA	NA	NA
UNKNOW	UNSATURATED POLYACRYLIC ACID	P	0.000	0.000	0.000	NONE	0.000	NA	YES	NO	NONE	NA	NA	NA	NA
UNKNOW	UNKNOW NON-HAZARDOUS MATERIAL	P	0.000	0.000	0.000	NONE	0.000	NA	YES	NO	NONE	NA	NA	NA	NA
100-51-6	BENZYL ALCOHOL	V	2.700	0.000	2.700	NONE	2.700	0.011	YES	NO	NONE	NA	NA	NA	NA
14744-55-4	FORMALDEHYDE POL WITH 1,3-BIS(2-HYDROXYETHYL)UREA	P	0.000	0.000	0.000	NONE	0.000	0.000	YES	NO	NONE	NA	NA	NA	NA
71-38-3	NEBUTYL ALCOHOL	V	1.200	0.000	1.200	10	1.200	0.120	YES	NO	7.5	NA	NA	NA	NA
753-69-9	ETHYL-3-ETHOXYPROPIONATE	V	6.822	0.000	6.822	NONE	6.822	NA	YES	NO	NONE	NA	NA	NA	NA

Prepared by:



500 Moseley Road  
Cross Roads, TX 76227  
Phone: (940) 387-0805

Table 4c - Topcoat Full-Speciation - Maximum Short-Term Emissions

Circle J Trailers  
EUs: PB1, PB2, PB3

"Maximum As-Applied Weight" is the maximum summation of all common constituents between Part A & Part B. Single highlighted cells indicate species that were common among part A's and part B's.

TOPCOATS				
CAS #	INGREDIENT NAME	INGREDIENT TYPE	MAXIMUM AS-APPLIED WEIGHT (lbs/gal)	TOTAL EMISSION RATE PER LIQUID COATING BOOTH (lbs/hr)
100-81-4	ETHYL BENZENE	V	0.01	0.145
108-95-8	Propylene Glycol Monomethyl Ether Acetate	V	1.944	0.000
108-98-3	TOLUENE	V	0.00	0.000
110-45-0	METHYL METHYL KETONE	V	0.04	0.582
111-66-0	OCT-1-ENE	V	0.00	0.013
111-76-2	ETHYLENE GLYCOL MONOBUTYL ETHER	V	0.01	0.129
112-07-2	Ethylene Glycol Monobutyl Ether Acetate	V	0.32	4.854
123-44-8	ACETYLACETONE	V	0.29	4.451
123-98-4	N-BUTYL ACETATE	V	2.83	43.836
1300-20-7	XYLENE	V	0.04	0.578
1333-88-4	C.I. PIGMENT BLACK 7	P	0.00	0.000
142-82-5	HEPTANE	V	0.00	0.069
25988-38-6	EPOXY RESIN	P	0.00	0.000
7439-90-5	Aluminum	P	0.20	0.000
52939-07-9	HINDERED AMINE LIGHT STABILIZER	P	0.00	0.000
55728-9	ZINC OCTOATE	P	0.00	0.000
590-01-2	N-BUTYL PROPIONATE	V	0.26	3.970
641-17-5	ETHANOL	V	0.02	0.323
67852-87-6	Phenylene Glycol Monomethyl Ether Acetate	V	0.00	0.012
64742-00-0	LOW BOILING NAPHTHA 100/140	V	0.01	0.208
64742-84-5	AROMATIC NAPHTHA HEAVY	V	0.54	8.421
64742-86-6	AROMATIC NAPHTHA LIGHT	V	0.69	10.635
67-56-1	METHYL ALCOHOL	V	0.00	0.000
70857-70-4	2-Methoxy-1-Acetoxy Propane	V	0.00	0.010
69811-44-9	DICHLORODIMETHYLSILANE TREATED SILICA	P	0.00	0.000
590-01-2	N-Butyl Propionate	V	0.11	1.719
763-69-9	ETHYL 3-ETHOXYPROPIONATE	V	0.15	2.271
77-56-7	DIBUTYL TIN DILAURATE	P	0.00	0.000
78-98-3	METHYL ETHYL KETONE	V	0.27	4.234
97-55-6	Propylene Glycol	V	0.00	0.010
78-93-1	Isobutyl Alcohol	V	0.00	0.010
803-332-4	Mineral Spirits	V	0.01	0.228
803-332-3	STANDARD SOLVENT	V	0.01	0.228
803-65-3	DIALETHER MODIFIED POLYDIMETHYLSILOXAN	P	0.00	0.000
91-20-0	NAPHTHALENE	V	0.06	0.955
85-53-6	1,2,4-TRIMETHYLBENZENE	V	0.32	4.884
97-85-8	ISOBUTYL ISOBUTYRATE	V	0.04	0.551
98-06-4	CUMENE	V	0.01	0.185
UNKNOWN	Mixed Esters	V	0.02	0.360
UNKNOWN	UNKNOWN ACRYLIC POLYOL	P	2.02	0.000
UNKNOWN	POLYESTER RESIN	P	0.69	0.000
UNKNOWN	POLYURETHANE DISPERSANT	P	0.14	0.000
UNKNOWN	POLYURETHANE RESIN	P	0.07	0.000
UNKNOWN	ALDEHYDE RESIN	P	0.07	0.000
UNKNOWN	ACRYLIC COPOLYMER	P	0.54	0.000
UNKNOWN	HEXANEDYLBIS (1,2-HYDROXY-OCTADECAN	P	0.02	0.000
UNKNOWN	METHYLALKYL POLYSILOXANE	P	0.01	0.000
UNKNOWN	MODIFIED RESIN	P	0.01	0.000
28182-81-2	HEXANE, 1,6-DIISOCYANATO-, HOMOPOLYME	NE	1.58	0.000
822-95-0	HEXAMETHYLENE DIISOCYANATE	NE	0.00	0.000
THINNER				
108-98-3	TOLUENE	V	0.072	1.11
128-98-4	BUTYL ACETATE	V	0.155	2.42
133-20-7	XYLENE	V	0.004	0.06
64742-95-6	AROMATIC NAPHTHA LIGHT	V	0.112	1.74
763-58-9	ETHYL 3-ETHOXYPROPIONATE	V	0.220	3.41
78-93-3	METHYL ETHYL KETONE	V	0.114	1.76
95-53-6	1,2,4-TRIMETHYLBENZENE	V	0.055	0.86
98-52-8	CUMENE	V	0.002	0.03

Example Volatile Ingredient Species Emission Rate: Ethylbenzene  
(Max. As-Applied Wt. 0.06935 lbs/gal) x (Max. Spray Rate 55.28 gal/hr) x (VOC Flashoff 100%) = 0.526 lbs Ethylbenzene/hr

Example Particulate Ingredient Species Emission Rate: C.I. Pigment Black 7  
(Max. As-Applied Wt. 0.00000 lbs/gal) x (Max. Spray Rate 55.28 gal/hr) x (1 - Filter Efficiency 80%) x (1 - Filter Efficiency 99%) x (1 - PM FallOut 10%) = 0.000 lbs C.I. Pigment Black 7/hr

Example Volatile Ingredient Species Emission Rate: Toluene  
(Max. As-Applied Wt. 0.072 lbs/gal) x (Max. Spray Rate 55.28 gal/hr) x (VOC Flashoff 100%) = 4.04 lbs Ethylbenzene/hr

Table 4d - Maximum Short-Term Speciated Topcoat Screening Emissions Levels Calculations

Circle J Trailers  
 ESU: Review of Short-Term VOC, Silica, & Metal-Compound Emissions

SOURCE GROUPS WORST-CASE MODELED UNIT IMPACT (ug/m<sup>3</sup>/hr/mi)

EPNL CB-1 Maximum Concentration - SCREENS
---

Notes:

- Unit Impact Multiplier (ug/m<sup>3</sup>/lb/hr) was obtained via AerScreen
- Total Rate & GLC for FINs: MD-1, PO-1, & MO-3 are calculated by taking the value of the Total Emission Rate for all three liquid coating booths (lbs/hr) and multiplying that value by the product of the Unit Impact Multiplier (ug/m<sup>3</sup>/lb/hr).
- ESU list was updated on June 5, 2015 according to IDAPA 58.01.01 Rules for the Control of Air Pollution in Idaho
- The summation of common constituents between the coating and the thinner are included in the Total Emission Rate EPN: PB-1, PB-2, PB-3 and highlighted in orange.

Summation of Common Constituents Between Coatings and Thinner =

Example Calculation - Ethylbenzene Off-Site GLC: (Ethylbenzene Emission Rate 3.314 lbs/hr) x (Max. Concentration 14.11 ug/m<sup>3</sup>/lbs/hr) = 46.7563 ug/m<sup>3</sup> Ethylbenzene

CAS #	INGREDIENT NAME	INGREDIENT TYPE	Short-Term Volatile & Particulate Total Emission Rates: TOPCOATS		Total Rate & GLC		Screening Emission Levels (lb/hr)	Maximum Emission Rate (lb/hr)	CUMULATIVE FRACTION OF EL	TOTAL LESS THAN EL (Y/N)	Refined Modeling Necessary?	Acceptable Ambient Concentration AAC (mg/m <sup>3</sup> )	TOTAL OFF-SITE GLC <sub>T</sub> : (mg/m <sup>3</sup> )	CUMULATIVE FRACTION OF AAC	TOTAL LESS THAN AAC (Y/N)
			MAX EMISSION RATE EPN: PB-1, PB-2, PB-3 (lb/hr)	SPRAY BOOTH GLC <sub>T</sub> (ug/m <sup>3</sup> )	SPRAY BOOTH GLC <sub>T</sub> (ug/m <sup>3</sup> )	SPRAY BOOTH GLC <sub>T</sub> (ug/m <sup>3</sup> )									
100-11-4	ETHYLBENZENE	V	0.145	0.0000	0.145	0.0000	29	0.145	0.0000	YES	NO	21.75	NA	NA	NA
108-90-5	Propylene Glycol Ether Acetate	V	1.113	0.0000	1.113	0.0000	25	1.113	0.04462	YES	NO	18.75	NA	NA	NA
109-66-5	BOLLENE <sup>TM</sup> Ether Acetate	V	1.113	0.0000	1.113	0.0000	25	1.113	0.04462	YES	NO	18.75	NA	NA	NA
110-83-0	METHYL N-AMYL KETONE	V	0.567	0.0000	0.567	0.0000	16.7	0.567	0.03219	YES	NO	11.75	NA	NA	NA
111-66-0	CYCLOHEXANONE	V	0.013	0.0000	0.013	0.0000	0.013	0.013	0.0000	YES	NO	NONE	NA	NA	NA
112-92-2	ETHYLENE GLYCOL DIMETHYL ETHER	V	0.211	0.0000	0.211	0.0000	4.2	0.211	0.00853	YES	NO	1.26	NA	NA	NA
113-85-1	ETHYLENE GLYCOL MONOMETHYL ETHER	V	0.484	0.0000	0.484	0.0000	9.7	0.484	0.01853	YES	NO	1.26	NA	NA	NA
123-54-8	ACETYLACETONE	V	4.461	0.0000	4.461	0.0000	89.2	4.461	0.1762	YES	NO	NONE	NA	NA	NA
123-66-4	N-BUTYLACRYLATE	V	46.251	0.0000	46.251	0.0000	925.0	46.251	1.8507	YES	NO	36.5	NA	NA	NA
133-20-7	STYRENE	V	0.857	0.0000	0.857	0.0000	17.1	0.857	0.0337	YES	NO	1.19	NA	NA	NA
142-92-5	GLYCOL ETHER ACETATE	V	0.859	0.0000	0.859	0.0000	17.2	0.859	0.0337	YES	NO	1.19	NA	NA	NA
142-92-5	HEPTANE	V	0.859	0.0000	0.859	0.0000	17.2	0.859	0.0337	YES	NO	1.19	NA	NA	NA
25058-38-6	EPOXY RESIN	P	0.000	0.0000	0.000	0.0000	NONE	0.000	NA	YES	NO	NONE	NA	NA	NA
7429-90-5	Aluminum	P	0.000	0.0000	0.000	0.0000	NONE	0.000	0.0000	YES	NO	NONE	NA	NA	NA
7429-90-5	Aluminum	P	0.000	0.0000	0.000	0.0000	NONE	0.000	0.0000	YES	NO	NONE	NA	NA	NA
52-708-6	UNDESIGNED ZINC OCTOATE	P	0.000	0.0000	0.000	0.0000	NONE	0.000	NA	YES	NO	NONE	NA	NA	NA
580-01-2	N-BUTYL PROPIONATE	V	3.970	0.0000	3.970	0.0000	79.4	3.970	0.1562	YES	NO	NONE	NA	NA	NA
6417-5	ETHANOL	V	0.933	0.0000	0.933	0.0000	18.7	0.933	0.0368	YES	NO	NONE	NA	NA	NA
6417-5	PROPAN-2-OL	V	0.933	0.0000	0.933	0.0000	18.7	0.933	0.0368	YES	NO	NONE	NA	NA	NA
64742-94-5	LOW BOILING NAPHTHA 100/40	V	0.508	0.0000	0.508	0.0000	10.2	0.508	0.0198	YES	NO	NONE	NA	NA	NA
64742-94-5	AROMATIC NAPHTHA - HEAVY	V	8.421	0.0000	8.421	0.0000	168.4	8.421	0.329	YES	NO	NONE	NA	NA	NA
64742-94-5	AROMATIC NAPHTHA - LIGHT	V	13.377	0.0000	13.377	0.0000	267.5	13.377	0.519	YES	NO	NONE	NA	NA	NA
702-71-4	3-METHYL BUTOXY POLYURETHANE	V	0.010	0.0000	0.010	0.0000	0.2	0.010	0.0003	YES	NO	NONE	NA	NA	NA
580-01-2	N-Butyl Propionate	V	1.719	0.0000	1.719	0.0000	34.4	1.719	0.0669	YES	NO	NONE	NA	NA	NA
753-89-9	ETHYL 3-METHOXYPROPIONATE	V	5.662	0.0000	5.662	0.0000	113.2	5.662	0.2225	YES	NO	NONE	NA	NA	NA
753-89-9	ETHYL 3-METHOXYPROPIONATE	V	5.662	0.0000	5.662	0.0000	113.2	5.662	0.2225	YES	NO	NONE	NA	NA	NA
7663-3	METHYL ETHYL KETONE	V	5.666	0.0000	5.666	0.0000	113.3	5.666	0.2228	YES	NO	23.5	NA	NA	NA
57-55-6	Propylene Glycol	V	0.010	0.0000	0.010	0.0000	0.2	0.010	0.0003	YES	NO	NONE	NA	NA	NA
74-83-1	Isobutyl Alcohol	V	0.010	0.0000	0.010	0.0000	0.2	0.010	0.0003	YES	NO	NONE	NA	NA	NA
8052-24-3	STANDARD SOLVENT	V	0.145	0.0000	0.145	0.0000	2.9	0.145	0.0056	YES	NO	18.75	NA	NA	NA
9338-96-3	POLYMER MODIFIED POLYDIMEETHYLSILOXANE	P	0.000	0.0000	0.000	0.0000	NONE	0.000	NA	YES	NO	NONE	NA	NA	NA
91-20-3	NAPHTHALENE	V	0.855	0.0000	0.855	0.0000	17.1	0.855	0.26675	YES	NO	2.5	NA	NA	NA
91-20-3	NAPHTHALENE	V	0.855	0.0000	0.855	0.0000	17.1	0.855	0.26675	YES	NO	2.5	NA	NA	NA
91-20-3	ISOPHTHALENE	V	0.855	0.0000	0.855	0.0000	17.1	0.855	0.26675	YES	NO	2.5	NA	NA	NA
91-20-3	ISOPHTHALENE	V	0.855	0.0000	0.855	0.0000	17.1	0.855	0.26675	YES	NO	2.5	NA	NA	NA
98-06-2	CUMENE	V	0.214	0.0000	0.214	0.0000	4.3	0.214	0.01315	YES	NO	17.25	NA	NA	NA
UNKNOW	Mixed Esters	V	0.000	0.0000	0.000	0.0000	NONE	0.000	NA	YES	NO	NONE	NA	NA	NA
UNKNOW	UNKNOWN ACRYLIC POLYOL	P	0.000	0.0000	0.000	0.0000	NONE	0.000	NA	YES	NO	NONE	NA	NA	NA
UNKNOW	POLYURETHANE DISPERSANT	P	0.000	0.0000	0.000	0.0000	NONE	0.000	NA	YES	NO	NONE	NA	NA	NA
UNKNOW	POLYURETHANE RESIN	P	0.000	0.0000	0.000	0.0000	NONE	0.000	NA	YES	NO	NONE	NA	NA	NA
UNKNOW	POLYURETHANE RESIN	P	0.000	0.0000	0.000	0.0000	NONE	0.000	NA	YES	NO	NONE	NA	NA	NA
UNKNOW	ADIPIC ACID	P	0.000	0.0000	0.000	0.0000	NONE	0.000	NA	YES	NO	NONE	NA	NA	NA
UNKNOW	ADIPIC ACID	P	0.000	0.0000	0.000	0.0000	NONE	0.000	NA	YES	NO	NONE	NA	NA	NA
UNKNOW	*1,6-HEXANEDITHIOL (2-HYDROXY)COTADICANAM	P	0.000	0.0000	0.000	0.0000	NONE	0.000	NA	YES	NO	NONE	NA	NA	NA
UNKNOW	METHYLLAL POLYSILOXANE	P	0.000	0.0000	0.000	0.0000	NONE	0.000	NA	YES	NO	NONE	NA	NA	NA
UNKNOW	MODIFIED RESIN	P	0.000	0.0000	0.000	0.0000	NONE	0.000	NA	YES	NO	NONE	NA	NA	NA
UNKNOW	MODIFIED RESIN	P	0.000	0.0000	0.000	0.0000	NONE	0.000	NA	YES	NO	NONE	NA	NA	NA
UNKNOW	MODIFIED RESIN	P	0.000	0.0000	0.000	0.0000	NONE	0.000	NA	YES	NO	NONE	NA	NA	NA
822-08-4	HEXAMETHYLENE DISOCYANATE	NE	0.000	0.0000	0.000	0.0000	NONE	0.000	NA	YES	NO	NONE	NA	NA	NA

Prepared by:  
 KJ Enviro Remedial Mgmt., Inc.  
 500 Mosely, TX 75227  
 Cross-Road, TX 75227  
 Phone: (940) 387-5805

**Table 5a**  
 Circle J Trailers  
 Table Plasma Cutting Emissions Calculations  
 EU: PC1

Plasma Arc Cutting			
EU: PC1			
Type of cutting	Plasma (PAC)		
Number of Cutters On-Site	1		
Cutting technique	Dry cutting		
Metal being cut	Mild Steel		
Maximum operating hours per year	1500	hours	
Emission factor for Plasma Arc Cutting	26.0	g fumes/min	
Emission factor for Plasma Arc Cutting	0.057320	lb fumes/min	
Emission factor for Plasma Arc Cutting	3.439229	lb fumes/hr	
NOx Emission factor for Plasma Arc Cutting Mild Steel	5.50	l/min	
Filter efficiency	95.00%		
Table capture efficiency	95.00%		
Maximum Cutters Being Used at Once	1	cutters	
Cut Rate in AP-42 Referenced Document	106	inches/min	
Maximum cutting time per hour	32	minutes	
Maximum feet of material cut per hour, total	283.47	feet	
Resulting fume generation, uncontrolled	1.834	lb/hr	NOTE - emission rate represents emissions for the limited operating time of the unit with hourly based on 45 min/hr and tons per year calculated as the lb/hr factor multiplied by the total annual hours of operation.
Resulting fume generation, uncontrolled	1.376	tpy	
Resulting fume generation, controlled	0.179	lb/hr	NOTE - Ambient air filtration systems will be installed in the facility. The manufacturer of these filtrations systems estimates 75-85% PM reductions.
Resulting fume generation, controlled	0.134	tpy	

Steel Analysis		Emissions	
Element	Constituent (wt%)	lb/hr	tpy
AL - Aluminum	0.000%	0.00000	0.00000
Sb - Antimony	0.000%	0.00000	0.00000
Be - Beryllium	0.000%	0.00000	0.00000
B - Boron	0.000%	0.00000	0.00000
Cd - Cadmium	0.000%	0.00000	0.00000
Ca - Calcium	0.000%	0.00000	0.00000
C - Carbon	0.260%	0.00046	0.00035
Cr - Chromium	0.000%	0.00000	0.00000
Co - Cobalt	0.000%	0.00000	0.00000
Cu - Copper	0.200%	0.00036	0.00027
Fe - Iron	99.000%	0.17705	0.13279
Pb - Lead	0.000%	0.00000	0.00000
Mn - Manganese	0.750%	0.00134	0.00101
Mo - Molybdenum	0.000%	0.00000	0.00000
Nb - Niobium	0.000%	0.00000	0.00000
Ni - Nickel	0.000%	0.00000	0.00000
N - Nitrogen	0.000%	0.00000	0.00000
P - Phosphorus	0.040%	0.00007	0.00005
Se - Selenium	0.000%	0.00000	0.00000
S - Sulfur	0.050%	0.00009	0.00007
Si - Silicon	0.000%	0.00000	0.00000
Sn - Tin	0.000%	0.00000	0.00000
Ti - Titanium	0.000%	0.00000	0.00000
W - Tungsten	0.000%	0.00000	0.00000
V - Vanadium	0.000%	0.00000	0.00000
Zn - Zinc	0.000%	0.00000	0.00000

NOx Emissions	
lb/hr	tpy
0.792	0.594

NO2 Emissions	
lb/hr	tpy
0.06336	0.04752

NOTES:

1. Plasma Arc Cutting emissions factors from Swedish study, AP-42 reference document, mild steel factor ranges from 20 to 26 grams/minute
2. Plasma Arc Cutting emissions were based on cutting Mild Steel
3. Elements highlighted in blue are categorized as Hazardous Air Pollutants (HAPs)
4. Plasma Arc Cutting NOx emissions factor from Swedish study, AP-42 reference document, dry cutting of mild steel ranges from 4.4 to 5.5 liters/minute

**Table 5b**  
 Circle J Trailers  
 Handheld Plasma Cutting Emissions Calculations  
 EUs: PC2-9

Handheld Plasma Arc Cutting			
EUs: PC2-9			
Type of cutting	Plasma (PAC)		
Cutting technique	Dry cutting		
Metal being cut	Carbon Steel		
Maximum Number of Plasma Cutters Used at Once	4		
Maximum operating hours per cutter per year	3000	hours	
Average Metal Thickness	0.200	inches	
Average Cut Width	0.125	inches	
Maximum Cut Speed (Manual - Full Cut)	12.0	inches/min	
Density of Mild Steel	0.282874	lb/in <sup>3</sup>	
NOx Emission factor for Plasma Arc Cutting Mild Steel	7.80	l/min	
Scaled NOx Emission factor for Plasma Arc Cutting Mild Steel	0.88	l/min	NOTE: Because the emission factor was based on minimum cut speed of 106.3 inches/minute of a robotic cutter, the NOx emission rate was scaled to the ratio of the maximum cutting speed of a manually operated plasma cutter.
Fume Generation	5.00%		NOTE: The AP-42 Reference Document indicates that, in a dry environment, only 5% of the total material removed when cutting mild steel is emitted as fumes. This has been determined to be representative of the emissions from the facility.
Indoor Emissions Fallout Factor	75.00%		
Maximum feet of material cut per hour, each	20.00	feet	
Maximum cutting time per hour, each	20.00	minutes	
Maximum feet of material cut per hour, total	80.00	feet	
Maximum cutting time per hour, total	80.00	minutes	
Resulting fume generation, uncontrolled	0.339	lb/hr	
Resulting fume generation, uncontrolled	0.509	tpy	
Resulting fume generation, controlled	0.085	lb/hr	NOTE: For PTE, emissions from the Hand Held Plasma Cutter emissions are controlled by a fabric filter prior to discharge from the building.
Resulting fume generation, controlled	0.127	tpy	

Steel Analysis		Emissions	
Element	Constituent (wt%)	lb/hr	tpy
Al - Aluminum	0.000%	0.00000	0.00000
Sb - Antimony	0.000%	0.00000	0.00000
Be - Beryllium	0.000%	0.00000	0.00000
B - Boron	0.000%	0.00000	0.00000
Cd - Cadmium	0.000%	0.00000	0.00000
Ca - Calcium	0.000%	0.00000	0.00000
C - Carbon	0.260%	0.00022	0.00033
Cr - Chromium	0.000%	0.00000	0.00000
Co - Cobalt	0.000%	0.00000	0.00000
Cu - Copper	0.200%	0.00017	0.00025
Fe - Iron	99.000%	0.08401	0.12602
Pb - Lead	0.000%	0.00000	0.00000
Mn - Manganese	0.750%	0.00064	0.00095
Mo - Molybdenum	0.000%	0.00000	0.00000
Nb - Niobium	0.000%	0.00000	0.00000
Ni - Nickel	0.000%	0.00000	0.00000
N - Nitrogen	0.000%	0.00000	0.00000
P - Phosphorus	0.040%	0.00003	0.00005
Se - Selenium	0.000%	0.00000	0.00000
S - Sulfur	0.050%	0.00004	0.00006
Si - Silicon	0.000%	0.00000	0.00000
Sn - Tin	0.000%	0.00000	0.00000
Ti - Titanium	0.000%	0.00000	0.00000
W - Tungsten	0.000%	0.00000	0.00000
V - Vanadium	0.000%	0.00000	0.00000
Zn - Zinc	0.000%	0.00000	0.00000

NO <sub>x</sub> Emissions	
lb/hr	tpy
0.316989652	0.4754845

NO <sub>2</sub> Emissions	
lb/hr	tpy
0.025359172	0.0380388

**NOTES:**

1. Plasma Arc Cutting emissions factors were calculated based on the information presented in the Swedish study "Emission of Fume, Nitrogen Oxides and Noise in Plasma Cutting of Stainless and Mild Steel," AP-42 reference document.
2. Plasma Arc Cutting emissions were based on cutting conditions which generate the maximum fumes for cutting Carbon Steel
3. Elements highlighted in blue are categorized as Hazardous Air Pollutants (HAPs)
4. Plasma Arc Cutting NOx emissions factor from Swedish study, AP-42 reference document, dry cutting of stainless steel maximum value of 7.8 liters/minute
5. Steel Analysis Based on the constituent values Type A36 Steel, a commonly used carbon steel.
6. Indoor Emissions PM fallout factor is based on Engineer's estimate of fallout based on fume size and ratio of building area open to air to completely enclosed emissions. The maximum ratio of openings in the building will be 25%. This is due to bay doors and egress doors being open during operation.

**Table 5c**  
 Circle J Trailers  
 Plasma Cutting Emissions Limits Comparison  
 EUs: PC1-9

**Total Plasma Arc Cutting**  
**EUs: PC1-9**

Mild Steel Analysis	Sum of Emissions	Screening Emissions Level	CUMULATIVE FRACTION OF EL	TOTAL LESS THAN EL (Y/N)
Element	lb/hr	lb/hr		
Al - Aluminum	0.0E+00	6.67E-01	0.00000	YES
Sb - Antimony	0.0E+00	3.30E-02	0.00000	YES
Be - Beryllium	0.0E+00	2.80E-05	0.00000	YES
B - Boron	0.0E+00	none	NA	YES
Cd - Cadmium	0.0E+00	3.70E-06	0.00000	YES
Ca - Calcium	0.0E+00	none	NA	YES
C - Carbon	6.9E-04	none	NA	YES
Cr - Chromium	0.0E+00	3.30E-02	0.00000	YES
Co - Cobalt	0.0E+00	3.30E-03	0.00000	YES
Cu - Copper	5.3E-04	1.30E-02	0.04057	YES
Fe - Iron	2.6E-01	3.33E-01	0.78398	YES
Pb - Lead	0.0E+00	none	NA	YES
Mn - Manganese	2.0E-03	6.70E-02	0.02952	YES
Mo - Molybdenum	0.0E+00	6.67E-01	0.00000	YES
Nb - Niobium	0.0E+00	none	NA	YES
Ni - Nickel	0.0E+00	2.70E-05	0.00000	YES
N - Nitrogen	0.0E+00	none	NA	YES
P - Phosphorus	1.1E-04	7.00E-03	0.01507	YES
Se - Selenium	0.0E+00	1.30E-02	0.00000	YES
S - Sulfur	1.3E-04	none	NA	YES
Si - Silicon	0.0E+00	6.67E-01	0.00000	YES
Sn - Tin	0.0E+00	1.33E-01	0.00000	YES
Ti - Titanium	0.0E+00	none	NA	YES
W - Tungsten	0.0E+00	3.33E-01	0.00000	YES
V - Vanadium	0.0E+00	3.00E-03	0.00000	YES
Zn - Zinc	0.0E+00	6.67E-01	0.00000	YES

NOTES:

**Table 6a**  
 Circle J Trailers  
 Products of Combustion Emissions Calculations  
 EUs: AMU1, WB1a, WB1b, WB2a, WB2b, CO1, CO2

Reference for Emission Factors	Fuel	Units	CO	NO <sub>x</sub>	PM <sub>10</sub> <sup>A</sup>	SO <sub>2</sub>	VOC	Pb
AP-42, Sec. 1.4, Table 1.4-1	Natural Gas	lb/MMBtu <sup>B</sup>	8.24E-02	9.80E-02	7.45E-03	5.88E-04	5.39E-03	4.90E-07
(799), Table 1.4-2(7/98)	Natural Gas	lb/MMscf	84	100	7.6	0.6	5.5	0.0005

<sup>A</sup> All particulate matter is assumed to be less than 1mm, therefore the emission factor and the calculated emissions are the same for PM and PM<sub>10</sub>.  
<sup>B</sup> The heating value of natural gas is 1,020 Btu/scf.

EU	EMISSION UNITS	FUEL	FIRING RATE (MMBtu/hr)	OPERATING HOURS (hrs/yr)	CO		NO <sub>x</sub>		PM/PM <sub>10</sub> 2.5		SO <sub>2</sub>		VOC		NO <sub>2</sub>		Pb	
					(lb/hr)	(tpy)	(lb/hr)	(tpy)	(lb/hr)	(tpy)	(lb/hr)	(tpy)	(lb/hr)	(tpy)	(lb/hr)	(tpy)	(lb/hr)	(tpy)
AMU-1	Air Makeup Unit 1	Natural Gas	4.00	5,000	0.33	0.82	0.39	0.98	0.03	0.07	0.00	0.01	0.02	0.05	0.02	0.74	0.00	0.00
WB-1a	Wash Bay 1a	Natural Gas	0.18	5,000	0.01	0.04	0.02	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.03	0.00	0.00
WB-1b	Wash Bay 1a	Natural Gas	0.18	5,000	0.01	0.04	0.02	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.03	0.00	0.00	0.00
WB-2a	Wash Bay 2a	Natural Gas	0.18	5,000	0.01	0.04	0.02	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.03	0.00	0.00	0.00
WB-2b	Wash Bay 2b	Natural Gas	0.18	5,000	0.01	0.04	0.02	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.03	0.00	0.00	0.00
CO-1	Curing Oven 1	Natural Gas	3.00	5,000	0.25	0.62	0.29	0.74	0.02	0.06	0.00	0.00	0.02	0.04	0.02	0.55	0.00	0.00
CO-2	Curing Oven 2	Natural Gas	3.00	5,000	0.25	0.62	0.29	0.74	0.02	0.06	0.00	0.00	0.02	0.04	0.02	0.55	0.00	0.00
<b>TOTAL EMISSIONS</b>					<b>0.88</b>	<b>2.20</b>	<b>1.05</b>	<b>2.62</b>	<b>0.08</b>	<b>0.20</b>	<b>0.01</b>	<b>0.02</b>	<b>0.06</b>	<b>0.14</b>	<b>0.06</b>	<b>1.97</b>	<b>5.25E-06</b>	<b>1.31E-05</b>

Prepared by:



500 Moseley Road  
 Cross Roads, TX 76227  
 Phone: (940) 387-0805



**Table 6c**  
 Circle J Trailers  
 Products of Combustion Metal Toxic Air Pollutant Emissions Calculations  
 EUs: AMU1, WB1a, WB1b, WB2a, WB2b, CO1, CO2

Reference for Emission Factors  
 AP-42, Sec. 1.4, Table 1.4-1  
 (7/98), Table 1.4-2(7/98)

Contaminant	CAS	Emissions Factors	
		lb/MMscf	lb/MMBtu
Arsenic	7440-38-2	2.0E-04	1.96E-07
Barium	7440-39-3	4.4E-03	4.31E-06
Beryllium	7440-41-7	1.2E-05	1.18E-08
Cadmium	7440-43-9	1.1E-03	1.08E-06
Chromium	7440-47-3	1.4E-03	1.37E-06
Cobalt	7440-48-4	8.4E-05	8.24E-08
Copper	7440-50-8	8.5E-04	8.33E-07
Manganese	7439-96-5	3.8E-04	3.73E-07
Mercury	7439-97-6	2.5E-04	2.55E-07
Molybdenum	7439-98-7	1.1E-03	1.08E-06
Nickel	7440-02-0	2.1E-03	2.06E-06
Selenium	7782-49-2	2.4E-05	2.35E-08
Vanadium	7440-62-2	2.3E-03	2.25E-06
Zinc	7440-66-6	2.9E-02	2.84E-05

EMISSION UNITS	AMU-1		CO-1
	Air Makeup	Natural Gas	Cutting Oven
FIRING RATE (MMBtu/hr)	4.00	5,000	3.00
OPERATING HOURS (hrs/yr)	0%	99.35%	0%
Min. Inlet Particulate Matter Filter Control Eff.	99.35%		99.35%
Exhaust Particulate Matter Filter Control Eff.			

Contaminant	CAS	Uncontrolled Emissions			Controlled Emissions		
		AMU-1 Emissions	AMU-1 Emissions	CO-1 Emissions	AMU-1 Emissions	AMU-1 Emissions	CO-1 Emissions
		lb/hr	tpy	lb/hr	tpy	lb/hr	tpy
Arsenic	7440-38-2	7.84E-07	1.96E-06	5.88E-07	1.47E-06	5.10E-09	1.27E-08
Barium	7440-39-3	1.73E-05	4.31E-05	1.29E-05	3.24E-05	3.82E-09	9.56E-09
Beryllium	7440-41-7	4.71E-08	1.18E-07	3.53E-08	8.82E-08	2.80E-07	7.05E-07
Cadmium	7440-43-9	4.31E-06	1.08E-05	3.24E-06	8.09E-06	2.29E-10	5.74E-10
Chromium	7440-47-3	5.49E-06	1.37E-05	4.12E-06	1.03E-05	2.80E-08	7.01E-08
Cobalt	7440-48-4	3.29E-07	8.24E-07	2.47E-07	6.18E-07	2.57E-08	6.62E-08
Copper	7440-50-8	3.33E-06	8.33E-06	2.50E-06	6.25E-06	2.14E-09	5.35E-09
Manganese	7439-96-5	1.49E-06	3.73E-06	1.12E-06	2.79E-06	5.42E-08	1.36E-07
Mercury	7439-97-6	1.02E-06	2.55E-06	7.55E-07	1.91E-06	9.69E-09	2.42E-08
Molybdenum	7439-98-7	4.31E-06	1.08E-05	3.24E-06	8.09E-06	6.63E-09	1.66E-08
Nickel	7440-02-0	8.24E-06	2.06E-05	6.18E-06	1.54E-05	2.80E-08	7.01E-08
Selenium	7782-49-2	9.41E-08	2.35E-07	7.06E-08	1.76E-07	3.30E-03	8.30E-03
Vanadium	7440-62-2	9.02E-06	2.25E-05	6.76E-06	1.69E-05	6.12E-10	1.53E-09
Zinc	7440-66-6	1.14E-04	2.84E-04	8.53E-05	2.13E-04	5.86E-08	1.47E-07
						7.39E-07	1.85E-06

Screening Emissions Level	Controlled Emissions			Controlled Emissions		
	lb/hr	tpy	lb/hr	tpy	lb/hr	tpy
1.50E-06	5.10E-09	1.27E-08	3.82E-09	9.56E-09	YES	YES
3.30E-02	1.12E-07	2.80E-07	8.41E-08	2.10E-07	YES	YES
2.80E-05	3.06E-10	7.65E-10	2.29E-10	5.74E-10	YES	YES
3.30E-02	2.80E-08	7.01E-08	2.10E-08	5.26E-08	YES	YES
3.30E-03	3.57E-08	8.92E-08	2.58E-08	6.69E-08	YES	YES
6.70E-02	2.14E-09	5.35E-09	1.61E-09	4.01E-09	YES	YES
3.33E-01	2.17E-08	5.42E-08	1.62E-08	4.06E-08	YES	YES
6.67E-01	9.69E-09	2.42E-08	7.26E-09	1.82E-08	YES	YES
2.70E-05	6.63E-09	1.66E-08	4.97E-09	1.24E-08	NA	NA
1.30E-02	2.80E-08	7.01E-08	2.10E-08	5.26E-08	YES	YES
3.00E-03	5.35E-08	1.34E-07	4.01E-08	1.00E-07	YES	YES
6.67E-01	6.12E-10	1.53E-09	4.59E-10	1.15E-09	YES	YES
	5.86E-08	1.47E-07	4.40E-08	1.10E-07	YES	YES
	7.39E-07	1.85E-06	5.54E-07	1.39E-06	YES	YES

**Table 7**  
**Circle J Trailers**  
**Grinding Wheel Emissions Calculations**  
**EUs: MG1 - MG16**

	Total Fume Emission Factor [lb/1000lb] of Grinding Wheel Used <sup>2</sup>	HAP Emission Factor [lb/1000lb] of Total Electrode Consumed <sup>3</sup>	Max Hourly Emissions	Annual Emissions TYP
Abrasive Grinding Wheel Usage <sup>6</sup>	-	-	250	300,000
Total PM-10 Grinding Emissions (tpy)	0.02	-	0.00125	0.00075
Aluminum 97-99% (tpy)	0.01	-	0.000625	0.00038
Titanium Dioxide (tpy)	0.01	-	0.000625	0.00038

Indoor Emissions Fallout Factor	75%
------------------------------------	-----

**Notes:**

1. Typical Emissions Calculations: tpy = (Emission Factor, lbs/1000 lbs) \* (Total Usage lbs/yr) / (1000) / (2000 lb/ton)
2. Emission Factor of Abrasive Grinding Wheel based on Engineer's Estimate of PM-10 liberated.
3. Indoor Emissions PM fallout factor is based on Engineer's estimate of fallout based on fume size and ratio of building area open to air to completely enclosed emissions. The maximum ratio of openings in the building will be 25%. This is due to bay doors and egress doors being open during operation.

Prepared by:



500 Moseley Road  
 Cross Roads, TX 76227  
 Phone: (940) 387-0805

**Table 8**  
**Circle J Trailers**  
**Welding Wire Emissions Calculations**  
**EUs: WELD1 - WELD62**

Steel Welding Wire Usage (lbs.)	Total Fume Emission Factor [lb/1000lb] of Total Electrode Consumed <sup>2</sup>	HAP Emission Factor [lb/1000lb] of Total Electrode Consumed <sup>3</sup>	Max Hourly Emissions	Annual Emissions TPY
	-	-	100	600,000
Total PM-10 Fume Emissions (tpy) <sup>4</sup>	5.2	-	1.30E-01	3.90E-01
Chromium (tpy)	-	0.001	2.50E-05	7.50E-05
Chromium VI (tpy)	-	ND	0.00E+00	0.00E+00
Cobalt (tpy)	-	0.001	2.50E-05	7.50E-05
Manganese (tpy)	-	0.32	7.95E-03	2.39E-02
Nickel (tpy)	-	0.001	2.50E-05	7.50E-05
Lead	-	ND	0.00E+00	0.00E+00

Indoor Emissions Fallout Factor 75%
---

**Notes:**

- Emission Factors For Gas Metal Arc Welding (GMAW) Welding Operations using E70S Electrodes. ( E70S wires are the predominate welding wires used in welding mild steel).
- AP-42, Table 12.19-1 "PM-10 Emission Factors for Welding Operations".
- AP-42, Table 12.19-2 "Hazardous Air Pollutant (HAP) Emission Factors for Welding Operations".
- Total Fume Emissions include other non-hazardous components including, Rosin Smoke, Fe, Cu, Al, etc.
- Typical Emissions Calculations: tpy = (Emission Factor, lbs/1000 lbs) \* (Total Usage lbs/yr) / (1000) / (2000 lb/ton)
- Indoor Emissions PM fallout factor is based on Engineer's estimate of fallout based on fume size and ratio of building area open to air to completely enclosed emissions. The maximum ratio of openings in the building will be 25%. This is due to bay doors and egress doors being open during operation.

Prepared by:



500 Moseley Road  
 Cross Roads, TX 76227  
 Phone: (940) 387-0805

**Table 9**  
**Circle J Trailers**  
**Cumulative TAP Emissions Screening Level Determination**

Species	Emissions	Screening Emissions Level	CUMULATIVE FRACTION OF EL	TOTAL LESS THAN EL (Y/N)
	lb/hr	lb/hr		
Naphthalene	9.55E-01	3.33E+00	0.28675	YES
Toluene	1.13E+00	2.50E+01	0.04519	YES
Aluminum	6.25E-04	6.67E-01	0.00094	YES
Beryllium	5.35E-10	2.80E-05	0.00002	YES
Cadmium	4.91E-08	3.70E-06	0.01326	YES
Chromium	2.51E-05	3.30E-02	0.00076	YES
Cobalt	2.50E-05	3.30E-03	0.00758	YES
Copper	5.27E-04	6.70E-02	0.00787	YES
Manganese	9.93E-03	3.33E-01	0.02981	YES
Molybdenum	4.91E-08	6.67E-01	0.00000	YES
Nickel	2.51E-05	2.70E-05	0.92940	YES
Selenium	1.07E-09	1.30E-02	0.00000	YES
Vanadium	1.03E-07	3.00E-03	0.00003	YES
Zinc	1.29E-06	6.67E-01	0.00000	YES

Summation of Common Constituents Between Coating, Welding, Plasma Cutting, and Grinding

Note: Only components that were common amongst two or more activities were included in this analysis.

## APPENDIX B – NESHAP REGULATORY APPLICABILITY



**IDAHO DEPARTMENT OF ENVIRONMENTAL QUALITY**  
**AIR QUALITY DIVISION**  
 1410 N. Hilton, Boise, ID 83706  
 For assistance, call the  
**Air Permit Hotline – 1-877-5PERMIT**

**Preapplication Meeting Information**  
**Form FRA (Federal Requirements Applicability) -**  
**Regulatory Review**

In each box in the table below, CTRL+click on the blue underlined text for instructions and information.

IDENTIFICATION	
1. Company Name:  <p style="text-align: center;"><u>Big Tex Trailer Manufacturing, Inc.</u></p>	2. Facility Name:  <p style="text-align: center;"><u>Circle J Trailers, Inc.</u></p>
3. Brief Project Description: <p style="text-align: center;"><u>Permit to Construct Amendment – Adding a new coating booth, air makeup unit and curing oven, while simultaneously removing the representation of carbon filters from the permit and increasing usage and emission limitations.</u></p>	
APPLICABILITY DETERMINATION	
4. List all applicable subparts of the New Source Performance Standards (NSPS) ( <a href="#">40 CFR part 60</a> ).  List all non-applicable subparts of the NSPS which may appear to apply to the facility but do not.  Examples of NSPS-affected emissions units include internal combustion engines, boilers, turbines, etc. Applicant must thoroughly review the list of affected emissions units.	List of all applicable subpart(s):  List of all non-applicable subpart(s) which may appear to apply but do not:  <input checked="" type="checkbox"/> Not Applicable
5. List applicable subpart(s) of the National Emission Standards for Hazardous Air Pollutants (NESHAPs) ( <a href="#">40 CFR part 61</a> and <a href="#">40 CFR part 63</a> ).  List all non-applicable subparts of the NESHAP which may appear to apply to the facility but do not.  Examples of affected emission units include solvent cleaning operations, industrial cooling towers, paint stripping and miscellaneous surface coating. Reference <a href="#">EPA's webpage on NESHAPs</a> for more information.	List of all applicable subpart(s): <p><b><u>40 CFR Part 63, Subpart HHHHHH</u></b></p> List of all non-applicable subpart(s) which may appear to apply but do not: <p><b><u>40 CFR Part 63, Subpart MMMM</u></b>  <b><u>40 CFR Part 63, Subpart XXXXXX</u></b></p> <input type="checkbox"/> Not Applicable
6. For each subpart identified above, conduct a complete regulatory analysis using the instructions and referencing the example on the following pages.  <b>Note</b> - Regulatory reviews must be submitted with sufficient detail so that DEQ can verify applicability and document in legal terms why the regulation does or does not apply. Regulatory reviews submitted with insufficient detail will be determined incomplete.	<input checked="" type="checkbox"/> A detailed regulatory review is provided (Follow instructions and example).  <input type="checkbox"/> DEQ has already been provided a detailed regulatory review. Give a reference to the document including the date.

## **FEDERAL APPLICABILITY**

Circle J Trailers, Inc. (Circle J) located in Caldwell, Canyon County, Idaho, is seeking an amendment to their current Permit to Construct for their Utility Trailer Manufacturing facility. The below determinations demonstrate that Circle J is compliant with the following Subparts of the Federal NSPS (40 CFR Part 60) or the Federal NESHAP (40 CFR Parts 61 and 63).

### **Federal Applicability Summary**

#### **40 CFR Part 63, Subpart HHHHHH**

This subpart establishes “National Emission Standards for Paint Stripping and Miscellaneous Surface Coating Operations Area Sources.” Though Circle J does not strip with methylene chloride nor does the facility paint with coatings containing the target HAPs at or above applicable thresholds, Circle J has chosen to voluntarily comply with the standards of this regulation in order to allow for future flexibility in operations and paint choices. The Initial Notification and Notification of Compliance Status for NESHAP 6H were mailed to the EPA and the state of Idaho in February of 2016, certifying that all requirements, as outlined in further detail below, are fulfilled.

#### **40 CFR Part 63, Subpart XXXXXX**

This subpart establishes “National Emission Standards for Hazardous Air Pollutants Area Source Standards for Nine Metal Fabrication and Finishing Source Categories.” Circle J is not subject to this subpart because Circle J’s NAICS and SIC codes are not listed as applicable codes by the EPA.

#### **40 CFR Part 63, Subpart MMMM**

This subpart establishes “National Emission Standards for Hazardous Air Pollutants for Surface Coating of Miscellaneous Metal Parts and Products.” Circle J is not subject to this subpart because Circle J does not have a potential to emit 10 tons per year of any single HAP and 25 tons per year combination of HAPs.

## Detailed Federal Applicability

### NESHAP 6H

#### What This Subpart Covers

##### **§63.11169 What is the purpose of this subpart?**

Except as provided in paragraph (d) of this section, this subpart establishes national emission standards for hazardous air pollutants (HAP) for area sources involved in any of the activities in paragraphs (a) through (c) of this section. This subpart also establishes requirements to demonstrate initial and continuous compliance with the emission standards contained herein.

(a) Paint stripping operations that involve the use of chemical strippers that contain methylene chloride (MeCl), Chemical Abstract Service number 75092, in paint removal processes;

(b) Autobody refinishing operations that encompass motor vehicle and mobile equipment spray-applied surface coating operations;

(c) Spray application of coatings containing compounds of chromium (Cr), lead (Pb), manganese (Mn), nickel (Ni), or cadmium (Cd), collectively referred to as the target HAP to any part or product made of metal or plastic, or combinations of metal and plastic that are not motor vehicles or mobile equipment.

(d) This subpart does not apply to any of the activities described in paragraph (d)(1) through (6) of this section.

(1) Surface coating or paint stripping performed on site at installations owned or operated by the Armed Forces of the United States (including the Coast Guard and the National Guard of any such State), the National Aeronautics and Space Administration, or the National Nuclear Security Administration.

(2) Surface coating or paint stripping of military munitions, as defined in §63.11180, manufactured by or for the Armed Forces of the United States (including the Coast Guard and the National Guard of any such State) or equipment directly and exclusively used for the purposes of transporting military munitions.

(3) Surface coating or paint stripping performed by individuals on their personal vehicles, possessions, or property, either as a hobby or for maintenance of their personal vehicles, possessions, or property. This subpart also does not apply when these operations are performed by individuals for others without compensation. An individual who spray applies surface coating to more than two motor vehicles or pieces of mobile equipment per year is subject to the requirements in this subpart that pertain to motor vehicle and mobile equipment surface coating regardless of whether compensation is received.

(4) Surface coating or paint stripping that meets the definition of “research and laboratory activities” in §63.11180.

(5) Surface coating or paint stripping that meets the definition of “quality control activities” in §63.11180.

(6) Surface coating or paint stripping activities that are covered under another area source NESHAP.

- Circle J acknowledges the purpose of 40 CFR 63 Subpart HHHHHH.

**§63.11170 Am I subject to this subpart?**

(a) You are subject to this subpart if you operate an area source of HAP as defined in paragraph (b) of this section, including sources that are part of a tribal, local, State, or Federal facility and you perform one or more of the activities in paragraphs (a)(1) through (3) of this section:

- (1) Perform paint stripping using MeCl for the removal of dried paint (including, but not limited to, paint, enamel, varnish, shellac, and lacquer) from wood, metal, plastic, and other substrates.
- (2) Perform spray application of coatings, as defined in §63.11180, to motor vehicles and mobile equipment including operations that are located in stationary structures at fixed locations, and mobile repair and refinishing operations that travel to the customer's location, except spray coating applications that meet the definition of facility maintenance in §63.11180. However, if you are the owner or operator of a motor vehicle or mobile equipment surface coating operation, you may petition the Administrator for an exemption from this subpart if you can demonstrate, to the satisfaction of the Administrator, that you spray apply no coatings that contain the target HAP, as defined in §63.11180. Petitions must include a description of the coatings that you spray apply and your certification that you do not spray apply any coatings containing the target HAP. If circumstances change such that you intend to spray apply coatings containing the target HAP, you must submit the initial notification required by 63.11175 and comply with the requirements of this subpart.
- (3) Perform spray application of coatings that contain the target HAP, as defined in §63.11180, to a plastic and/or metal substrate on a part or product, except spray coating applications that meet the definition of facility maintenance or space vehicle in §63.11180.

(b) An area source of HAP is a source of HAP that is not a major source of HAP, is not located at a major source, and is not part of a major source of HAP emissions. A major source of HAP emissions is any stationary source or group of stationary sources located within a contiguous area and under common control that emits or has the potential to emit any single HAP at a rate of 9.07 megagrams (Mg) (10 tons) or more per year, or emit any combination of HAP at a rate of 22.68 Mg (25 tons) or more per year.

- Though Circle J does not currently perform any of the actions that would make the facility applicable to this subpart, Circle J has voluntarily chose to comply with the standards set forth within in order to allow for flexibility in operations in the future.

**§63.11171 How do I know if my source is considered a new source or an existing source?**

(a) This subpart applies to each new and existing affected area source engaged in the activities listed in §63.11170, with the exception of those activities listed in §63.11169(d) of this subpart.

(b) The affected source is the collection of all of the items listed in paragraphs (b)(1) through (6) of this section. Not all affected sources will have all of the items listed in paragraphs (b)(1) through (6) of this section.

- (1) Mixing rooms and equipment;
- (2) Spray booths, ventilated prep stations, curing ovens, and associated equipment;
- (3) Spray guns and associated equipment;
- (4) Spray gun cleaning equipment;
- (5) Equipment used for storage, handling, recovery, or recycling of cleaning solvent or waste paint; and
- (6) Equipment used for paint stripping at paint stripping facilities using paint strippers containing MeCl.

(c) An affected source is a new source if it meets the criteria in paragraphs (c)(1) and (c)(2) of this section.

- (1) You commenced the construction of the source after September 17, 2007 by installing new paint stripping or surface coating equipment. If you purchase and install spray booths, enclosed spray gun cleaners, paint stripping equipment to reduce MeCl emissions, or purchase new spray guns to comply with this subpart at an existing source, these actions would not make your existing source a new source.
- (2) The new paint stripping or surface coating equipment is used at a source that was not actively engaged in paint stripping and/or miscellaneous surface coating prior to September 17, 2007.

(d) An affected source is reconstructed if it meets the definition of reconstruction in §63.2.

(e) An affected source is an existing source if it is not a new source or a reconstructed source.

- Because the facility replaced two old paint booths with the new paint booth (EU: PB-1) after September 17, 2007, the facility is considered a new source.

### **General Compliance Requirements**

#### **§63.11172 When do I have to comply with this subpart?**

The date by which you must comply with this subpart is called the compliance date. The compliance date for each type of affected source is specified in paragraphs (a) and (b) of this section.

(a) For a new or reconstructed affected source, the compliance date is the applicable date in paragraph (a)(1) or (2) of this section:

- (1) If the initial startup of your new or reconstructed affected source is after September 17, 2007, the compliance date is January 9, 2008.
  - (2) If the initial startup of your new or reconstructed affected source occurs after January 9, 2008, the compliance date is the date of initial startup of your affected source.
- (b) For an existing affected source, the compliance date is January 10, 2011.
- Circle J acknowledges the applicable compliance dates.

**§63.11173 What are my general requirements for complying with this subpart?**

(a) Each paint stripping operation that is an affected area source must implement management practices to minimize the evaporative emissions of MeCl. The management practices must address, at a minimum, the practices in paragraphs (a)(1) through (5) of this section, as applicable, for your operations.

- (1) Evaluate each application to ensure there is a need for paint stripping (e.g., evaluate whether it is possible to re-coat the piece without removing the existing coating).
- (2) Evaluate each application where a paint stripper containing MeCl is used to ensure that there is no alternative paint stripping technology that can be used.
- (3) Reduce exposure of all paint strippers containing MeCl to the air.
- (4) Optimize application conditions when using paint strippers containing MeCl to reduce MeCl evaporation (e.g., if the stripper must be heated, make sure that the temperature is kept as low as possible to reduce evaporation).
- (5) Practice proper storage and disposal of paint strippers containing MeCl (e.g., store stripper in closed, air-tight containers).

(b) Each paint stripping operation that has annual usage of more than one ton of MeCl must develop and implement a written MeCl minimization plan to minimize the use and emissions of MeCl. The MeCl minimization plan must address, at a minimum, the management practices specified in paragraphs (a)(1) through (5) of this section, as applicable, for your operations. Each operation must post a placard or sign outlining the MeCl minimization plan in each area where paint stripping operations subject to this subpart occur. Paint stripping operations with annual usage of less than one ton of MeCl, must comply with the requirements in paragraphs (a)(1) through (5) of this section, as applicable, but are not required to develop and implement a written MeCl minimization plan.

(c) Each paint stripping operation must maintain copies of annual usage of paint strippers containing MeCl on site at all times.

(d) Each paint stripping operation with annual usage of more than one ton of MeCl must maintain a copy of their current MeCl minimization plan on site at all times.

- The facility does not perform paint stripping with MeCl or otherwise.

(e) Each motor vehicle and mobile equipment surface coating operation and each miscellaneous surface coating operation must meet the requirements in paragraphs (e)(1) through (e)(5) of this section.

(1) All painters must be certified that they have completed training in the proper spray application of surface coatings and the proper setup and maintenance of spray equipment. The minimum requirements for training and certification are described in paragraph (f) of this section. The spray application of surface coatings is prohibited by persons who are not certified as having completed the training described in paragraph (f) of this section. The requirements of this paragraph do not apply to the students of an accredited surface coating training program who are under the direct supervision of an instructor who meets the requirements of this paragraph.

(2) All spray-applied coatings must be applied in a spray booth, preparation station, or mobile enclosure that meets the requirements of paragraph (e)(2)(i) of this section and either paragraph (e)(2)(ii), (e)(2)(iii), or (e)(2)(iv) of this section.

(i) All spray booths, preparation stations, and mobile enclosures must be fitted with a type of filter technology that is demonstrated to achieve at least 98-percent capture of paint overspray. The procedure used to demonstrate filter efficiency must be consistent with the American Society of Heating, Refrigerating, and Air-Conditioning Engineers (ASHRAE) Method 52.1, "Gravimetric and Dust-Spot Procedures for Testing Air-Cleaning Devices Used in General Ventilation for Removing Particulate Matter, June 4, 1992" (incorporated by reference, see §63.14 of subpart A of this part). The test coating for measuring filter efficiency shall be a high solids bake enamel delivered at a rate of at least 135 grams per minute from a conventional (non-HVLP) air-atomized spray gun operating at 40 pounds per square inch (psi) air pressure; the air flow rate across the filter shall be 150 feet per minute. Owners and operators may use published filter efficiency data provided by filter vendors to demonstrate compliance with this requirement and are not required to perform this measurement. The requirements of this paragraph do not apply to waterwash spray booths that are operated and maintained according to the manufacturer's specifications.

- Filters at the facility have at least 98% capture efficiency.

(ii) Spray booths and preparation stations used to refinish complete motor vehicles or mobile equipment must be fully enclosed with a full roof, and four complete walls or complete side curtains, and must be ventilated at negative pressure so that air is drawn into any openings in the booth walls or preparation station curtains. However, if a spray booth is fully enclosed and has seals on all doors and other

openings and has an automatic pressure balancing system, it may be operated at up to, but not more than, 0.05 inches water gauge positive pressure.

- All booths at the facility are fully enclosed, with a full roof, four complete walls and are ventilated at negative pressure so that air is drawn into any openings in the booth walls or preparation station curtains.

(iii) Spray booths and preparation stations that are used to coat miscellaneous parts and products or vehicle subassemblies must have a full roof, at least three complete walls or complete side curtains, and must be ventilated so that air is drawn into the booth. The walls and roof of a booth may have openings, if needed, to allow for conveyors and parts to pass through the booth during the coating process.

- All booths at the facility are fully enclosed, with a full roof, four complete walls and are ventilated at negative pressure so that air is drawn into any openings in the booth walls or preparation station curtains.

(iv) Mobile ventilated enclosures that are used to perform spot repairs must enclose and, if necessary, seal against the surface around the area being coated such that paint overspray is retained within the enclosure and directed to a filter to capture paint overspray.

- The facility does not use mobile ventilated enclosures.

(3) All spray-applied coatings must be applied with a high volume, low pressure (HVLP) spray gun, electrostatic application, airless spray gun, air-assisted airless spray gun, or an equivalent technology that is demonstrated by the spray gun manufacturer to achieve transfer efficiency comparable to one of the spray gun technologies listed above for a comparable operation, and for which written approval has been obtained from the Administrator. The procedure used to demonstrate that spray gun transfer efficiency is equivalent to that of an HVLP spray gun must be equivalent to the California South Coast Air Quality Management District's "Spray Equipment Transfer Efficiency Test Procedure for Equipment User, May 24, 1989" and "Guidelines for Demonstrating Equivalency with District Approved Transfer Efficient Spray Guns, September 26, 2002" (incorporated by reference, see §63.14 of subpart A of this part). The requirements of this paragraph do not apply to painting performed by students and instructors at paint training centers. The requirements of this paragraph do not apply to the surface coating of aerospace vehicles that involves the coating of components that normally require the use of an airbrush or an extension on the spray gun to properly reach limited access spaces; to the application of coatings on aerospace vehicles that contain fillers that adversely affect atomization with HVLP spray guns; or to the application of coatings on aerospace vehicles that normally have a dried film thickness of less than 0.0013 centimeter (0.0005 in.).

- The facility uses electrostatic spray guns with a transfer efficiency of 80%.

(4) All paint spray gun cleaning must be done so that an atomized mist or spray of gun cleaning solvent and paint residue is not created outside of a container that collects used gun cleaning solvent. Spray gun cleaning may be

done with, for example, hand cleaning of parts of the disassembled gun in a container of solvent, by flushing solvent through the gun without atomizing the solvent and paint residue, or by using a fully enclosed spray gun washer. A combination of non-atomizing methods may also be used.

- The facility acknowledges this requirement and will comply when cleaning spray guns.

(5) As provided in §63.6(g), we, the U.S. Environmental Protection Agency, may choose to grant you permission to use an alternative to the emission standards in this section after you have requested approval to do so according to §63.6(g)(2).

(f) Each owner or operator of an affected miscellaneous surface coating source must ensure and certify that all new and existing personnel, including contract personnel, who spray apply surface coatings, as defined in §63.11180, are trained in the proper application of surface coatings as required by paragraph (e)(1) of this section. The training program must include, at a minimum, the items listed in paragraphs (f)(1) through (f)(3) of this section.

(1) A list of all current personnel by name and job description who are required to be trained;

(2) Hands-on and classroom instruction that addresses, at a minimum, initial and refresher training in the topics listed in paragraphs (f)(2)(i) through (2)(iv) of this section.

- i. Spray gun equipment selection, set up, and operation, including measuring coating viscosity, selecting the proper fluid tip or nozzle, and achieving the proper spray pattern, air pressure and volume, and fluid delivery rate.
- ii. Spray technique for different types of coatings to improve transfer efficiency and minimize coating usage and overspray, including maintaining the correct spray gun distance and angle to the part, using proper banding and overlap, and reducing lead and lag spraying at the beginning and end of each stroke.
- iii. Routine spray booth and filter maintenance, including filter selection and installation.
- iv. Environmental compliance with the requirements of this subpart.

(3) A description of the methods to be used at the completion of initial or refresher training to demonstrate, document, and provide certification of successful completion of the required training. Owners and operators who can show by documentation or certification that a painter's work experience and/or training has resulted in training equivalent to the training required in paragraph (f)(2) of this section are not required to provide the initial training required by that paragraph to these painters.

- The facility acknowledges the training requirements of this subpart, has trained all existing painters, and will certify the training of new painters accordingly.

(g) As required by paragraph (e)(1) of this section, all new and existing personnel at an affected motor vehicle and mobile equipment or miscellaneous surface coating source, including contract personnel, who spray apply surface coatings, as defined in §63.11180, must be trained by the dates specified in paragraphs (g)(1) and (2) of this section. Employees who transfer within a company to a position as a painter are subject to the same requirements as a new hire.

- (1) If your source is a new source, all personnel must be trained and certified no later than 180 days after hiring or no later than July 7, 2008, whichever is later. Painter training that was completed within five years prior to the date training is required, and that meets the requirements specified in paragraph (f)(2) of this section satisfies this requirement and is valid for a period not to exceed five years after the date the training is completed.
- (2) If your source is an existing source, all personnel must be trained and certified no later than 180 days after hiring or no later than January 10, 2011, whichever is later. Painter training that was completed within five years prior to the date training is required, and that meets the requirements specified in paragraph (f)(2) of this section satisfies this requirement and is valid for a period not to exceed five years after the date the training is completed.
- (3) Training and certification will be valid for a period not to exceed five years after the date the training is completed, and all personnel must receive refresher training that meets the requirements of this section and be re-certified every five years.
- (4) The facility acknowledges the training requirements of this subpart, has trained all existing painters, and will certify the training of new painters accordingly.

**§63.11174 What parts of the General Provisions apply to me?**

(a) Table 1 of this subpart shows which parts of the General Provisions in subpart A apply to you.

(b) If you are an owner or operator of an area source subject to this subpart, you are exempt from the obligation to obtain a permit under 40 CFR part 70 or 71, provided you are not required to obtain a permit under 40 CFR 70.3(a) or 71.3(a) for a reason other than your status as an area source under this subpart. Notwithstanding the previous sentence, you must continue to comply with the provisions of this subpart applicable to area sources.

- The facility acknowledges the General Provisions that apply.

**Notifications, Reports, and Records**

**§63.11175 What notifications must I submit?**

(a) Initial Notification. If you are the owner or operator of a paint stripping operation using paint strippers containing MeCl and/or a surface coating operation subject to this subpart, you must submit the initial notification required by §63.9(b). For a new affected source, you must submit the Initial Notification no later than 180 days after initial startup or July 7, 2008, whichever is later. For an existing affected source, you must submit the initial notification no later than

January 11, 2010. The initial notification must provide the information specified in paragraphs (a)(1) through (8) of this section.

(1) The company name, if applicable.

(2) The name, title, street address, telephone number, e-mail address (if available), and signature of the owner and operator, or other certifying company official;

(3) The street address (physical location) of the affected source and the street address where compliance records are maintained, if different. If the source is a motor vehicle or mobile equipment surface coating operation that repairs vehicles at the customer's location, rather than at a fixed location, such as a collision repair shop, the notification should state this and indicate the physical location where records are kept to demonstrate compliance;

(4) An identification of the relevant standard (i.e., this subpart, 40 CFR part 63, subpart HHHHHH);

(5) A brief description of the type of operation as specified in paragraph (a)(5)(i) or (ii) of this section.

(i) For all surface coating operations, indicate whether the source is a motor vehicle and mobile equipment surface coating operation or a miscellaneous surface coating operation, and include the number of spray booths and preparation stations, and the number of painters usually employed at the operation.

(ii) For paint stripping operations, identify the method(s) of paint stripping employed (e.g., chemical, mechanical) and the substrates stripped (e.g., wood, plastic, metal).

(6) Each paint stripping operation must indicate whether they plan to annually use more than one ton of MeCl after the compliance date.

(7) A statement of whether the source is already in compliance with each of the relevant requirements of this subpart, or whether the source will be brought into compliance by the compliance date. For paint stripping operations, the relevant requirements that you must evaluate in making this determination are specified in §63.11173(a) through (d) of this subpart. For surface coating operations, the relevant requirements are specified in §63.11173(e) through (g) of this subpart.

(8) If your source is a new source, you must certify in the initial notification whether the source is in compliance with each of the requirements of this subpart. If your source is an existing source, you may certify in the initial notification that the source is already in compliance. If you are certifying in the initial notification that the source is in compliance with the relevant requirements of this subpart, then include also a statement by a responsible official with that official's name, title, phone number, e-mail address (if available) and signature, certifying the truth, accuracy, and completeness of the notification, a statement that the source has complied with all the relevant standards of this subpart, and that this initial notification also serves as the notification of compliance status.

(b) Notification of Compliance Status. If you are the owner or operator of a new source, you are not required to submit a separate notification of compliance status in addition to the initial notification specified in paragraph (a) of this subpart provided you were able to certify compliance on the date of the initial notification, as part of the initial notification, and your compliance status has not since changed. If you are the owner or operator of any existing source and did not certify in the initial notification that your source is already in compliance as specified in paragraph (a) of this section, then you must submit a notification of compliance status. You must submit a Notification of Compliance Status on or before March 11, 2011. You are required to submit the information specified in paragraphs (b)(1) through (4) of this section with your Notification of Compliance Status:

(1) Your company's name and the street address (physical location) of the affected source and the street address where compliance records are maintained, if different.

(2) The name, title, address, telephone, e-mail address (if available) and signature of the owner and operator, or other certifying company official, certifying the truth, accuracy, and completeness of the notification and a statement of whether the source has complied with all the relevant standards and other requirements of this subpart or an explanation of any noncompliance and a description of corrective actions being taken to achieve compliance. For paint stripping operations, the relevant requirements that you must evaluate in making this determination are specified in §63.11173(a) through (d). For surface coating operations, the relevant requirements are specified in §63.11173(e) through (g).

(3) The date of the Notification of Compliance Status.

(4) If you are the owner or operator of an existing affected paint stripping source that annually uses more than one ton of MeCl, you must submit a statement certifying that you have developed and are implementing a written MeCl minimization plan in accordance with §63.11173(b).

- Circle J submitted an initial notification and notification of compliance status in February of 2016 certifying that all requirements are being met.

**§63.11176 What reports must I submit?**

(a) Annual Notification of Changes Report. If you are the owner or operator of a paint stripping, motor vehicle or mobile equipment, or miscellaneous surface coating affected source, you are required to submit a report in each calendar year in which information previously submitted in either the initial notification required by §63.11175(a), Notification of Compliance, or a previous annual notification of changes report submitted under this paragraph, has changed. Deviations from the relevant requirements in §63.11173(a) through (d) or §63.11173(e) through (g) on the date of the report will be deemed to be a change. This includes notification when paint stripping affected sources that have not developed and implemented a written MeCl minimization plan in accordance with §63.11173(b) used more than one ton of MeCl in the previous calendar year. The annual notification of changes report must be submitted prior to March 1 of each calendar

year when reportable changes have occurred and must include the information specified in paragraphs (a)(1) through (2) of this section.

(1) Your company's name and the street address (physical location) of the affected source and the street address where compliance records are maintained, if different.

(2) The name, title, address, telephone, e-mail address (if available) and signature of the owner and operator, or other certifying company official, certifying the truth, accuracy, and completeness of the notification and a statement of whether the source has complied with all the relevant standards and other requirements of this subpart or an explanation of any noncompliance and a description of corrective actions being taken to achieve compliance.

(b) If you are the owner or operator of a paint stripping affected source that has not developed and implemented a written MeCl minimization plan in accordance with §63.11173(b) of this subpart, you must submit a report for any calendar year in which you use more than one ton of MeCl. This report must be submitted no later than March 1 of the following calendar year. You must also develop and implement a written MeCl minimization plan in accordance with §63.11173(b) no later than December 31. You must then submit a Notification of Compliance Status report containing the information specified in §63.11175(b) by March 1 of the following year and comply with the requirements for paint stripping operations that annually use more than one ton of MeCl in §§63.11173(d) and 63.11177(f).

- The facility will submit an Annual Notification of Changes when applicable.

#### **§63.11177 What records must I keep?**

If you are the owner or operator of a surface coating operation, you must keep the records specified in paragraphs (a) through (d) and (g) of this section. If you are the owner or operator of a paint stripping operation, you must keep the records specified in paragraphs (e) through (g) of this section, as applicable.

(a) Certification that each painter has completed the training specified in §63.11173(f) with the date the initial training and the most recent refresher training was completed.

(b) Documentation of the filter efficiency of any spray booth exhaust filter material, according to the procedure in §63.11173(e)(3)(i).

(c) Documentation from the spray gun manufacturer that each spray gun with a cup capacity equal to or greater than 3.0 fluid ounces (89 cc) that does not meet the definition of an HVLP spray gun, electrostatic application, airless spray gun, or air assisted airless spray gun, has been determined by the Administrator to achieve a transfer efficiency equivalent to that of an HVLP spray gun, according to the procedure in §63.11173(e)(4).

(d) Copies of any notification submitted as required by §63.11175 and copies of any report submitted as required by §63.11176.

(e) Records of paint strippers containing MeCl used for paint stripping operations, including the MeCl content of the paint stripper used. Documentation needs to be sufficient to verify annual usage of paint strippers containing MeCl (e.g., material safety data sheets or other documentation provided by the manufacturer or supplier of the paint stripper, purchase receipts, records of paint stripper usage, engineering calculations).

(f) If you are a paint stripping source that annually uses more than one ton of MeCl you are required to maintain a record of your current MeCl minimization plan on site for the duration of your paint stripping operations. You must also keep records of your annual review of, and updates to, your MeCl minimization plan.

(g) Records of any deviation from the requirements in §63.11173, §63.11174, §63.11175, or §63.11176. These records must include the date and time period of the deviation, and a description of the nature of the deviation and the actions taken to correct the deviation.

(h) Records of any assessments of source compliance performed in support of the initial notification, notification of compliance status, or annual notification of changes report.

- The facility will keep all applicable records.

**§63.11178 In what form and for how long must I keep my records?**

(a) If you are the owner or operator of an affected source, you must maintain copies of the records specified in §63.11177 for a period of at least five years after the date of each record. Copies of records must be kept on site and in a printed or electronic form that is readily accessible for inspection for at least the first two years after their date, and may be kept off-site after that two year period.

- The facility acknowledges record keeping requirements.