Lane Regional Air Protection Agency
Simple "High" Air Contaminant Discharge Permit

Review Report

Carry-On Trailer Corporation
91218 North Coburg Industrial Way
Coburg, OR 97408
Website: https://www.carry-ontrailer.com

Source Information:

SIC	3715 – Truck trailer manufacturing
NAICS	336212

Source Categories (LRAPA Title 37, Table 1)	B:69. Surface coating operations > 250 gallons/mo
Public Notice Category	II

Compliance and Emissions Monitoring Requirements:

Unassigned emissions	N
Emission credits	N
Compliance schedule	N
Source test [date(s)]	N

COMS	N
CEMS	N
Ambient monitoring	N

Reporting Requirements

Annual report (due date)	Feb 15
Emission fee report (due date)	Feb 15
SACC (due date)	N
Quarterly report (due date)	N

Monthly report (due dates)	N
Excess emissions report	Y
Other reports	N

Air Programs

NSPS (list subparts)	N
NESHAP (list subparts)	N
CAM	N
Regional Haze (RH)	N
Synthetic Minor (SM)	N
Part 68 Risk Management	N
Title V	N
ACDP (SIP)	N
Major HAP Source	N
Federal Major Source	N
New Source Review (NSR)	N
Prevention of Significant Deterioration (PSD)	N
Acid Rain	N
Clean Air Mercury Rule (CAMR)	N
TACT	N

1. Permittee Identification
   Carry-On Trailer Corporation ("the facility") manufactures utility and cargo trailers at 91218 North Coburg Industrial Way in Coburg, Oregon.

2. General Background Information
   The facility operations include metal cutting, grinding, welding, and coating applications, woodworking, and final assembly. The metalwork and woodwork activities are conducted inside the building. All coating operations are conducted in a paint booth (PB-1). The paint booth is equipped with dry filters to control particulate matter emissions from paint overspray. The paint booth includes a 1.2 MMBtu per hour natural gas-fired make-up air unit to provide conditioned air. The facility began operation in 2014.

3. Reasons for Permit Action
   This permit action is for the renewal of an existing Simple Air Contaminant Discharger Permit (ACDP) which was issued on April 11, 2014 and expired on April 11, 2019. The facility submitted renewal application 64605 on December 10, 2018. The facility submitted annual reports and fees as required and the Simple ACDP remains valid until LRAPA issues the Simple ACDP renewal. The facility stated in their renewal application that no changes have been made to the facility since the original permit was issued. Because the actual emissions for calendar year 2018 were greater than 10 tons/year for VOCs, this permit action is considered a Simple "high" ADCP renewal under LRAPA 37-0064(2)(b).

4. Attainment Status
   The facility is located in an area that is in attainment for all criteria pollutants.

5. Emission Unit Description
   The emission units regulated by the permit are the following:

EU ID	Description	Control	Date Installed
PB-1	Paint Booth	Controlled by a paint booth filter system	2014
AIE	Aggregate Insignificant Emissions • Welding	None	2014

   a. The facility includes the following emission units that are considered categorically insignificant activities under LRAPA Title 12:

      - 1.2 MMBtu per hour natural gas-fired make-up air unit

Emission Limitations

6. PB-1 is subject to the visible emission limitations under LRAPA 32-010(3). This emission unit may not have visible emissions equal to or greater than 20% opacity for a period or periods aggregating more than three (3) minutes in any one (1) hour.

7. PB-1 is subject to particulate matter emission limitations under LRAPA 32-015(2)(b). For sources installed, constructed or modified on or after June 1, 1970 but prior to April 16, 2015 for which there are no representative compliance source test results, the particulate matter emission limit is 0.14 grains per dry standard cubic foot.

8. PB-1 is subject to the process weight rate emission limitation under LRAPA 32-045. Particulate matter emissions in any one hour may not exceed the amount shown in LRAPA 32-8010 for the process weight allocated to the process.

9. Under LRAPA 32-007, the facility must prepare an Inspection and Maintenance Plan (I&M Plan) for the paint booth. The permittee must submit a copy of the I&M Plan to LRAPA for review upon request. If LRAPA determines the I&M Plan is deficient, LRAPA may require the permittee to amend the plan. At minimum, the I&M Plan must include inspection schedules for the paint booth and the associated dry filters used to control overspray. The I&M Plan must identify procedures for recording the date and time of any inspections, identification of the equipment inspected, the results of the inspection, and the actions taken if repairs or maintenance are necessary.

10. Typically Achievable Control Technology (TACT) for PB-1
LRAPA 32-008 requires a new or modified emission unit at a facility to meet TACT if the emission unit meets the following criteria: The emission unit is not subject to Major NSR or a Type A State NSR under Title 38, an NSPS under Title 46, or any other standard applicable only to modified sources in Title 32, Title 33 or Title 39 for the regulated pollutant emitted; the facility is required to have a permit; the new emission unit would have emissions of any criteria pollutant equal to or greater than 1 ton per year; and LRAPA determines that the proposed air pollution control devices and emission reduction processes do not represent TACT. The paint booth has VOC emissions greater than 1 ton per year. While LRAPA has not performed a formal TACT determination for VOCs, LRAPA has determined that (1) the use of high velocity, low pressure (HVLP) spray guns (or similar), (2) the use of dry filters with a control efficiency of at least 99.3% for particulate matter as determined by the manufacturer, (3) manual spray gun system cleaning is not performed outside a container that collects the gun cleaning solvent, and (4) personnel who apply surface coatings are trained in proper spray application of surface coatings, likely meets TACT. Based on vendor literature, HVLP spray guns typically achieve a transfer efficiency of 60% or greater. The facility's use of HVLP spray guns (or similar) results in the application of the least amount of VOC per square foot of product produced for their particular application.

11. Enforcement History
Since the facility began operation in 2014 no enforcement action has been taken against this facility.

12. Performance Test Results
The facility is not required to conduct performance testing. LRAPA is not aware of any performance testing conducted at this facility.

13. Plant Site Emission Limits (PSELs)
The following annual (rolling 12-month) PSELs are detailed in the permit (all values are in tons per year):

Annual Plant Site Emission Limits (PSELs)
(tons per year)

Source	PM	PM_{10}	$PM_{2.5}$	CO	NOx	SO_2	VOC	GHGs	Individual HAP	Aggregate HAP
Totals	NA	NA	NA	NA	NA	NA	39	NA	9	24

a. The proposed PSELs for all pollutants that are emitted above the de minimis are equal to the Generic PSEL in accordance with LRAPA 37-0064(3)(b) and the netting basis is zero in accordance with LRAPA 42-0040(2).
b. PSELs for PM, PM_{10} and $PM_{2.5}$ are not included in this permit because annual actual emissions of these pollutants are less than the respective de minimis listed in LRAPA Title 12. This is a change from the previous Simple ACDP which included Generic PSELs for these pollutants.
c. PSELs for CO, NOx, SO_2, and GHGs are not included in this permit because annual actual emissions of these pollutants are less than the respective de minimis as listed in LRAPA Title 12.

d. The PSEL is a federally enforceable limit on the potential to emit.
e. The facility is required to record monthly usage of all VOC and HAP-containing raw materials and conduct a mass balance of VOC and HAP-containing raw material usage to determine compliance with the 12-month rolling VOC and HAP PSELs.

14. Baseline Emission Rate (BER), Netting Basis and Significant Emission Rate (SER)
The BER for all pollutants other than $PM_{2.5}$ have been set to zero (0) tons per year because the facility was not in operation during the period of 2000 through 2010 (for GHGs) or the baseline year of 1978 (all other criteria pollutants). A BER is not required for $PM_{2.5}$ under LRAPA 42-0048(3). As a Simple ACDP for which each regulated pollutant has a generic PSEL, the facility does not have a netting basis for any of the regulated pollutants.

Pollutant	Baseline Emission Rate (tons/yr)	Netting Basis		Plant Site Emission Limit (PSEL)			Significant Emission Rate (tons/yr)
		Previous (tons/yr)	Proposed (tons/yr)	Previous PSEL (tons/yr)	Proposed PSEL (tons/yr)	PSEL Increase over netting basis (tons/yr)	
PM	0	0	0	24	NA	NA	25
PM_{10}	0	0	0	14	NA	NA	15
$PM_{2.5}$	NA	0	0	9	NA	NA	10
CO	0	0	0	NA	NA	NA	100
NOx	0	0	0	NA	NA	NA	40
SO_2	0	0	0	NA	NA	NA	40
VOC	0	0	0	39	39	39	40
GHG	0	0	0	NA	NA	NA	75,000
Individual HAP	0	0	0	9	9	9	NA
Aggregate HAPs	0	0	0	24	24	24	NA

15. Other Emission Limitations
The permit includes general visible and particulate matter emissions limitations for the facility.

16. Federal Hazardous Air Pollutants (HAPs)
A major source for federal hazardous air pollutants (HAP) is a facility that has the potential to emit 10 or more tons per year of any individual federal HAP or 25 or more tons per year of the aggregate of federal HAPs. This source is not a major source of federal HAPs.

To determine potential emissions of federal HAPs, the potential usage of paint in gallons per year was determined by multiplying the maximum hourly paint usage rate in gallons per hour by the maximum hours in a year. The potential usage of paint in gallons per year was multiplied by the product with the highest individual HAP content and the product with the highest aggregate HAP content. The highest potential individual HAP emission is xylene at 2.05 tons per year. The highest potential aggregate HAP emissions from the highest HAP-containing paint are 2.22 tons per year. See the Calculation section for more information.

17. National Emission Standards for Hazardous Air Pollutants (NESHAPs)
The facility currently has PSELs for federal HAPs that limit emissions to no more than 9 tons per year for an individual federal HAP and 24 tons per year for the aggregate of all federal HAPs. As such, the facility has been a minor or area source of federal HAPs since the facility began operation in 2014.

As part of the original facility application dated December 30, 2013, the facility submitted a Petition for Exemption from 40 CFR 63 subpart HHHHHH ('6H') – National Emission Standards for Hazardous Air Pollutants: Paint Stripping and Miscellaneous Surface Coating Operations at Area Sources. The facility stated that they do not spray-apply any of the target HAPs as defined in 40 CFR 63.11180. During the processing of this renewal, LRAPA confirmed that the facility continues to comply with the requirements to be exempt from 40 CFR 63 subpart 6H.

18. New Source Performance Standards (NSPSs)
There are no sources at this facility for which NSPS have been promulgated.

19. New Source Review (NSR) and Prevention of Significant Deterioration (PSD)
The facility is not a federal major source because it is not a listed source and the proposed PSELs for all regulated pollutants are below the applicable federal major source threshold of 250 TPY. Because the facility is not located in a nonattainment, reattainment, or maintenance area, it cannot be subject to federal nonattainment NSR or state NSR for any regulated pollutant, as applicable.

20. Recordkeeping
The facility is required to keep and maintain a record of the following information for a period of five (5) years:

Activity	Parameter	Units	Recording Frequency
VOC/HAP-containing Material Usage	Material Usage	Gallons	Monthly
VOC/HAP-containing Material Usage	Density of Material	Pounds per Gallon	Maintain current information at all times
VOC-containing Material Usage	VOC Content	% By Weight	Maintain current information at all times
HAP-containing Material Usage	HAP Content	% By Weight	Maintain current information at all times
Paint Booth Filter Particulate Matter Control Efficiency	Control Efficiency	%	Maintain documentation from each manufacturer
Paint Booth Training	Training Logs / Certifications	NA	Maintain documentation of training for paint booth personnel
Paint Booth Inspections	Occurrence	NA	Each inspection
Paint Booth Filter Replacement	Occurrence	NA	Upon Replacement
Inspection and Maintenance Plan	Document	NA	Maintain the current version on-site

a. VOC/HAP-containing materials include, but are not limited to, coatings, lacquers, thinners, stains, topcoats, solvents, adhesives, cleaning, and wash-off materials.
b. The density and VOC/HAP content information must be supplied from CPDS or SDS provided by the manufacturer/supplier of the VOC/HAP containing material.

21. Reporting Requirements
The facility is required to submit an annual report by **February 15th** each year to include the information identified in Item 20 above.

22. Public Notice
The draft permit was on public notice from May 28, 2019 to June 26, 2019. No written comments were submitted during the 30-day comment period.

JJW/cmw
06/27/2019

Calculations

Facility Emission Summary

EU ID	Emission Unit Description	PM (TPY)	PM_{10} (TPY)	$PM_{2.5}$ (TPY)	SO_2 (TPY)	NO_x (TPY)	CO (TPY)	VOC (TPY)	GHG (TPY)	Individual HAP (TPY)	Aggregate HAP (TPY)
PB-1	Paint Booth	0.22	0.22	0.22	--	--	--	45.35	--	2.05	2.22
AIE-1	Welding	0.12	0.12	0.12	--	--	--	--	--	0.01	0.01
	PSEL =	NA	NA	NA	NA	NA	NA	39	NA	9	24

NOTE: PSELs are not required for regulated pollutants that will be emitted at less than the de minimis emission level listed in LRAPA Title 12 from the entire source.

Coating Materials

								Xylene		Ethyl Benzene		Cumene		Cobalt Compounds		Manganese Compounds	
			Density	VOC		Solids		1330-20-7		100-41-4		98-82-8		NA		NA	
Vendor	Description	Code	lb/gal	wt%	lb/gal	wt%	lb/gal	wt%	lb/gal	wt%	lb/gal	wt%	lb/gal	wt%	lb/gal	wt%	lb/gal
Marcus	Black High Gloss Enamel	SP-12612-4	7.43	69.00	5.13	30.98	2.30	0.24	0.02	0.01	0.00	0.11	0.01	0.01	0.00	0.00	0.00
Marcus	Gray HS AC Non-Lift Primer	SP-13145-1	12.8	24.01	3.07	70.63	9.04	1.83	0.23	0.09	0.01	0.05	0.01	0.01	0.00	0.00	0.00
Marcus	Gray Textured Primer	SP-13333	12.22	22.38	2.73	73.08	8.93	1.71	0.21	0.09	0.01	0.05	0.01	0.00	0.00	0.00	0.00
Kelley	Black	HAS-BA-021	8.64	37.82	3.27	57.52	4.97	0.49	0.04	0.00	0.00	0.24	0.02	0.41	0.04	0.16	0.01

Potential to Emit (PTE) calculated at the maximum usage rates as follows:

Maximum hourly usage rate = 2 gal/hr
Maximum operating hours = 8760 hours/yr
Maximum yearly usage rate = 17520 gal/yr

Potential VOC Emissions

Painting Operations:

VOC PTE = Worst case VOC content (lb/gal) x Maximum yearly usage rate (gal/yr) / 2000 (lb/ton)

VOC PTE = 44.91 tons/yr

Clean-Up Solvent:

Maximum yearly usage = 120 gal/yr
VOC Content (n-butyl acetate) = 7.35 lbs/gal
VOC PTE = 0.44 tons/yr

Total VOC PTE = 45.35 tons/yr

Potential PM Emissions

Painting Operations:

PM PTE = Worst case solid content (lb/gal) x Maximum yearly usage rate (gal/yr) x (100%-Transfer Efficieny) x (100%-Removal Efficiency) / 2000 (lb/ton)

Transfer efficiency = 60 % (Estimate for HVLP applications)
Filter efficiency = 99.3 % (Based upon filter manufactuer efficiency)
PM PTE = 0.22 tons/yr

Potential HAP Emissions

Individual HAP PTE = Worst case individual HAP content (lb/gal) x Maximum yearly usage rate (gal/yr) / 2000 (lb/ton)

Individual HAP PTE = 2.05 tons/yr (Xylene)

Aggregate HAP PTE = Worst case total HAP content for highest HAP content product (lb/gal) x Maximum yearly usage rate (gal/yr) / 2000 (lb/ton)

Aggregate HAP PTE = 2.22 tons/yr

Natural Gas Combustion Units

Avg. Gross Heat Value of Natural Gas: 1020 MMBtu/MMCF

EU ID	Emission Unit	Rating	Unit
MAU-1	Makeup Air Unit	1.200	MMBtu/hr
	Total =	1.200	MMBtu/hr

Natural Gas Combustion Emissions

	PM		PM_{10}		$PM_{2.5}$		SO2		NOx		CO		VOC		GHGs
EU ID	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY	TPY
MAU-1	2.9E-03	0.01	2.9E-03	0.01	2.9E-03	0.01	3.1E-03	8.8E-03	0.12	0.52	0.10	0.43	6.5E-03	0.03	615
Total =	2.9E-03	0.01	2.9E-03	0.01	2.9E-03	0.01	3.1E-03	8.8E-03	0.12	0.52	0.10	0.43	6.5E-03	0.03	615

Natural Gas Combustion Emission Factors

			SO_2					
PM	PM_{10}	$PM_{2.5}$	Hourly	Annual	NOx	CO	VOC	GHGs
2.5	2.5	2.5	2.6	1.7	100	84	5.5	513

All emission factors are from ODEQ AQ-EF05 - Emission Factors from Gas Fired Boilers (uncontrolled medium boilers < 100 million Btu/hr), except GHGs

All emission factors expressed as pounds of pollutant per MMCF of natural gas combusted, exept GHGs

GHG emission factor is expressed as (tons of GHG x hr)/(MMBtu per year)

GHG emission factor is derived from 40 CFR 98, Tables C-1 and C-2 using GWP of 1 for CO2, 25 for methane, and 298 for nitrous oxide

Aggregate Insignificant Emissions

EU ID	Emission Unit	Max Usage	Unit
AIE-1	Welding	47,000	lbs/yr

GMAW Welding with E70S-6 Electrode Type

Welding Emissions

	PM		PM_{10}		$PM_{2.5}$		Cr		Co		Mn		Ni	
EU ID	lb/yr	TPY	lb/yr	TPY	lb/yr	TPY	lb/yr	TPY	lb/yr	TPY	lb/yr	TPY	lb/yr	TPY
AIE-1	244	0.12	244	0.12	244	0.12	4.7E-02	2.4E-05	4.7E-02	2.4E-05	1.5E+01	7.5E-03	4.7E-02	2.4E-05
Total =	244	0.12	244	0.12	244	0.12	4.7E-02	2.4E-05	4.7E-02	2.4E-05	1.5E+01	7.5E-03	4.7E-02	2.4E-05

Welding Emission Factors

PM	PM_{10}	$PM_{2.5}$	Cr	Co	Mn	Ni
5.2	5.2	5.2	0.01	0.01	3.18	0.01

All emission factors are from US EPA AP-42 Ch. 12.19.

Units for PM/PM10/PM2.5 are lb/1000 lb of electrode consumed.

Units for metal HAPs are 10^-1 lb/1000 lb of electrode consumed.