

Missouri Department of dnr.mo.gov

NATURAL RESOURCES

Michael L. Parson, Governor

Carol S. Comer, Director

OCT 16 2019

Mr. Dan Nowlin
VP Operations
Load King
7701 E. Independence Ave.
Kansas City, MO 64125

RE: New Source Review Permit - Project Number: 2019-04-006

Dear Mr. Nowlin:

Enclosed with this letter is your permit to construct. Please study it carefully and refer to Appendix A for a list of common abbreviations and acronyms used in the permit. Also, note the special conditions on the accompanying pages. The document entitled, "Review of Application for Authority to Construct," is part of the permit and should be kept with this permit in your files. Operation in accordance with these conditions and your new source review permit is necessary for continued compliance. The reverse side of your permit certificate has important information concerning standard permit conditions and your rights and obligations under the laws and regulations of the State of Missouri.

This permit may include requirements with which you may not be familiar. If you would like the department to meet with you to discuss how to understand and satisfy the requirements contained in this permit, an appointment referred to as a Compliance Assistance Visit (CAV) can be set up with you. To request a CAV, please contact your local regional office or fill out an online request. The regional office contact information can be found at the following website: <http://dnr.mo.gov/regions/>. The online CAV request can be found at <http://dnr.mo.gov/cav/compliance.htm>.

If you were adversely affected by this permit decision, you may be entitled to pursue an appeal before the administrative hearing commission pursuant to Sections 621.250 and 643.075.6 RSMo. To appeal, you must file a petition with the administrative hearing commission within thirty days after the date this decision was mailed or the date it was delivered, whichever date was earlier. If any such petition is sent by registered mail or certified mail, it will be deemed filed on the date it is mailed; if it is sent by any method other than registered mail or certified mail, it will be deemed filed on the date it is received by the administrative hearing commission, whose contact information is: Administrative Hearing Commission, United States Post Office Building, 131 West High Street, Third Floor, P.O. Box 1557, Jefferson City, Missouri 65102, phone: 573-751-2422, fax: 573-751-5018, website: www.oa.mo.gov/ahc.



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If you have any questions regarding this permit, please do not hesitate to contact Chad Stephenson, at the Department of Natural Resources' Air Pollution Control Program, P.O. Box 176, Jefferson City, MO 65102 or at (573) 751-4817. Thank you for your attention to this matter.

Sincerely,

AIR POLLUTION CONTROL PROGRAM



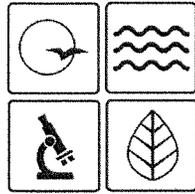
Susan Heckenkamp
New Source Review Unit Chief

SH:sca

Enclosures

c: Kansas City Regional Office
PAMS File: 2019-04-006

Permit Number: 102019-006



MISSOURI
DEPARTMENT OF
NATURAL RESOURCES

MISSOURI AIR CONSERVATION COMMISSION

PERMIT TO CONSTRUCT

Under the authority of RSMo 643 and the Federal Clean Air Act the applicant is authorized to construct the air contaminant source(s) described below, in accordance with the laws, rules and conditions as set forth herein.

Permit Number: **102019-006** Project Number: 2019-04-006
Installation Number: 159-0079

Parent Company: Custom Truck One Source

Parent Company Address: 7701 E. Independence Ave., Kansas City, MO 64125

Installation Name: Load King

Installation Address: 5105 Pelham Dr, Sedalia, MO 65301

Location Information: Pettis County, S1, T45N, R22W

Application for Authority to Construct was made for:

New installation for the manufacturing of dump truck beds and other steel products. This review was conducted in accordance with Section (5), Missouri State Rule 10 CSR 10-6.060, *Construction Permits Required*.

Standard Conditions (on reverse) are applicable to this permit.

Standard Conditions (on reverse) and Special Conditions are applicable to this permit.

Kendall B. Halo for

Director or Designee
Department of Natural Resources

OCT 16 2019

Effective Date

STANDARD CONDITIONS:

Permission to construct may be revoked if you fail to begin construction or modification within two years from the effective date of this permit. Permittee should notify the Enforcement and Compliance Section of the Air Pollution Control Program if construction or modification is not started within two years after the effective date of this permit, or if construction or modification is suspended for one year or more.

You will be in violation of 10 CSR 10-6.060 if you fail to adhere to the specifications and conditions listed in your application, this permit and the project review. In the event that there is a discrepancy between the permit application and this permit, the conditions of this permit shall take precedence. Specifically, all air contaminant control devices shall be operated and maintained as specified in the application, associated plans and specifications.

You must notify the Enforcement and Compliance Section of the Department's Air Pollution Control Program of the anticipated date of start up of this (these) air contaminant source(s). The information must be made available within 30 days of actual startup. Also, you must notify the Department's regional office responsible for the area within which you are located within 15 days after the actual start up of this (these) air contaminant source(s).

A copy of the permit application and this permit and permit review shall be kept at the installation address and shall be made available to Department's personnel upon request.

You may appeal this permit or any of the listed special conditions to the Administrative Hearing Commission (AHC), P.O. Box 1557, Jefferson City, MO 65102, as provided in RSMo 643.075.6 and 621.250.3. If you choose to appeal, you must file a petition with the AHC within 30 days after the date this decision was mailed or the date it was delivered, whichever date was earlier. If any such petition is sent by registered mail or certified mail, it will be deemed filed on the date it is mailed. If it is sent by any method other than registered mail or certified mail, it will be deemed filed on the date it is received by the AHC.

If you choose not to appeal, this certificate, the project review and your application and associated correspondence constitutes your permit to construct. The permit allows you to construct and operate your air contaminant source(s), but in no way relieves you of your obligation to comply with all applicable provisions of the Missouri Air Conservation Law, regulations of the Missouri Department of Natural Resources and other applicable federal, state and local laws and ordinances.

The Air Pollution Control Program invites your questions regarding this air pollution permit. Please contact the Construction Permit Unit using the contact information below.

Contact Information:

Missouri Department of Natural Resources
Air Pollution Control Program
P.O. Box 176
Jefferson City, MO 65102-0176
(573) 751-4817

The regional office information can be found at the following website:

<http://dnr.mo.gov/regions/>

SPECIAL CONDITIONS:

The permittee is authorized to construct and operate subject to the following special conditions:

The special conditions listed in this permit were included based on the authority granted to the Missouri Air Pollution Control Program by the Missouri Air Conservation Law (specifically 643.075) and by the Missouri Rules listed in Title 10, Division 10 of the Code of State Regulations (specifically 10 CSR 10-6.060). For specific details regarding conditions, see 10 CSR 10-6.060 paragraph (3)(E). "Conditions required by permitting authority."

Load King

Pettis County, S1, T45N, R22W

1. Control Device Requirement- Dust Collector
 - A. Load King shall control emissions from the abrasive blasting room (AB-51) using a dust collector as specified in the permit application.
 - B. The dust collector shall be operated and maintained in accordance with the manufacturer's specifications. The dust collector shall be equipped with a gauge or meter, which indicates the pressure drop across the control device. These gauges or meters shall be located such that the Department of Natural Resources' employees may easily observe them.
 - C. Replacement cartridges for the dust collector shall be kept on hand at all times. The cartridges shall be made of materials appropriate for operating conditions expected to occur (i.e. temperature limits, acidic and alkali resistance, and abrasion resistance).
 - D. Load King shall monitor and record the operating pressure drop across the dust collector at least once every 24 hours when in operation. The operating pressure drop shall be maintained within the design conditions specified by the filter manufacturer's performance warranty.
 - E. Load King shall maintain a copy of the dust collector manufacturer's performance warranty on site.
 - F. Load King shall maintain an operating and maintenance log for the dust collector which shall include the following:
 - 1) Incidents of malfunction, with impact on emissions, duration of event, probable cause, and corrective actions; and
 - 2) Maintenance activities, with inspection schedule, repair actions, and replacements, etc.
2. Capture Device Requirement – Abrasive Blasting Enclosure (EP-02)
 - A. Load King shall use an abrasive blasting enclosure to capture emissions from the abrasive blasting activities. Emissions from the blasting enclosure shall be routed through the dust collector as stated in Special Condition one.

SPECIAL CONDITIONS:

The permittee is authorized to construct and operate subject to the following special conditions:

- B. Load King shall design and construct the abrasive blasting enclosure according to the Occupational Safety and Health Administration (OSHA) requirements, 29 CFR 1910.94(a)(3) *Blast-cleaning Enclosures*.
3. Operational Requirement - Solvents
Load King shall keep the solvents and cleaning solutions in sealed containers whenever the materials are not in use. Load King shall provide and maintain suitable, easily read, permanent markings on all solvent and cleaning solution containers used with this equipment.
4. Control Device Requirement- Particulate Filter (95% Control Efficiency)
- A. Load King shall control particulate matter emissions from the paint booth (EP-03) using particulate filters as specified in the permit application. The filter(s) shall be operated and maintained in accordance with the manufacturer's specifications.
 - B. Replacement particulate filters for the paint booths shall be kept on hand at all times. The particulate filters shall be made of fibers appropriate for operating conditions expected to occur (i.e. temperature limits, acidic and alkali resistance, and abrasion resistance). The replacement filter material type and weight shall meet or exceed the specifications of the existing filter. The air to cloth ratio or air to filter ratio shall not be increased when filter replacement is performed.
 - C. Load King shall maintain a copy of the filters manufacturer's performance warranty on site.
 - D. Load King shall monitor and record the operating pressure drop across the paint booth filter at least once every 24 hours. The operating pressure drop shall be maintained within the design conditions specified by the manufacturer's performance warranty.
 - E. Load King shall maintain an operating and maintenance log for the paint booth filter which shall include the following:
 - 1) Incidents of malfunction, with impact on emissions, duration of event, probable cause, and corrective actions; and
 - 2) Maintenance activities, with inspection schedule, repair actions, and replacements, etc.
5. Capture Device Requirement – Enclosed Booth
- A. Load King shall capture all emissions from the spray booth (EP-03) with a totally enclosed booth and exhaust fan(s). Emissions from the booth shall be routed through the filter as stated in Special Condition 4.

SPECIAL CONDITIONS:

The permittee is authorized to construct and operate subject to the following special conditions:

- B. Load King shall operate the booth's exhaust fan(s) at all times surface coating is spray applied.
6. Alternative Coating and Solutions
- A. Load King shall not use any alternative activator/coating/primer or any combination of activator/coating/primer not provided in the application in the paint booth (EP-03) which result in potential to emit of 25.0 tons combined HAPs in any consecutive 12-month period or individual HAP emissions greater than the SMAL. A listing of SMALs can be found in Appendix B.
 - B. When considering using an alternative material that is different than a material listed in the Application for Authority to Construct, Load King shall calculate the potential emissions of each individual HAP in the alternative material using the Safety Data Sheet (SDS) of the new material. If the SDS lists a range for a HAP content, use the highest value in this range. For particulate HAPs an overall control efficiency of 91.63% may be used which accounts for a 75% transfer efficiency, 70% booth capture efficiency and a 95% filter control efficiency. Alternatively,
 - C. Load King shall seek approval from the Air Pollution Control Program before use of the alternative material in the following cases:
 - 1) If the potential combined HAP emissions for the alternative material is equal to or greater than the 25.0 tons in any consecutive 12-month period. The proper calculation method is given in Attachment A
 - 2) If the potential individual HAP emissions for the alternative material is equal to or greater than the Screening Model Action Levels (SMAL) for any compound listed in Appendix B. The proper calculation method is given in Attachment B.
 - D. Attachment A and B, or equivalent forms using same calculation method shall be used to show compliance with Special Condition 6.A.
 - E. Load King shall maintain records of individual HAP potential emissions and combined HAP potential emissions for 6.A.
7. Record Keeping and Reporting Requirements
- A. Load King shall maintain all records required by this permit for not less than five years and shall make them available immediately to any Missouri Department of Natural Resources' personnel upon request. These records shall include SDS for all materials used.

SPECIAL CONDITIONS:

The permittee is authorized to construct and operate subject to the following special conditions:

- B. Load King shall report to the Air Pollution Control Program's Compliance/Enforcement Section, by mail at P.O. Box 176, Jefferson City, MO 65102 or by e-mail at AirComplianceReporting@dnr.mo.gov, no later than 10 days after the end of the month during which any record required

REVIEW OF APPLICATION FOR AUTHORITY TO CONSTRUCT AND OPERATE
SECTION (5) REVIEW

Project Number: 2019-04-006
Installation ID Number: 159-0079
Permit Number: 102019-006

Installation Address:
Load King
5105 Pelham Dr
Sedalia, MO 65301

Parent Company:
Custom Truck One Source
7701 E. Independence Ave.
Kansas City, MO 64125

Pettis County, S1, T45N, R22W

REVIEW SUMMARY

- Load King has applied for authority to manufacture dump truck beds and other steel products.
- The application was deemed complete on July 10, 2019.
- HAP emissions are expected from the proposed equipment. HAPs of concern from this process are from the combustion of natural gas and coatings containing toluene, xylene, methyl isobutyl ketone, methyl methacrylate and ethylbenzene.
- 40 CFR Part 63, Subpart HHHHHH, *National Emission Standards for Hazardous Air Pollutants: Paint Stripping and Miscellaneous Surface Coating Operations at Area Sources* does not apply to the proposed equipment because although it will be painting metal automotive parts, the proposed coatings this installation will use does not contain target HAPs (chromium, lead, manganese, nickel, or cadmium) as listed in this regulation.
- 40 CFR 63 Subpart XXXXXX does not apply as the metal fabrication at the facility does not meet the description of any of the 9 source categories given in Table 1 of 40 CFR 63.11522.
- None of the New Source Performance Standards (NSPS) apply to the installation.
- A paint booth and particulate filters (with 95% control) are being used to control the PM, PM₁₀, and PM_{2.5} emissions from the spraying. Blast enclosures with fabric filters are being used to control the particulate matter emissions from the abrasive blasting.
- This review was conducted in accordance with Section (5) of Missouri State Rule 10 CSR 10-6.060, *Construction Permits Required*. Potential emissions of all pollutants are conditioned below de minimis levels.

- This installation is located in Pettis County, an attainment/nonclassifiable area for all criteria pollutants.
- This installation is not on the List of Named Installations found in 10 CSR 10-6.020(3)(B), Table 2. The installation's major source level is 250 tons per year and fugitive emissions are not counted toward major source applicability.
- Ambient air quality modeling was not performed since potential emissions of the application are below de minimis levels.
- Emissions testing is not required for the equipment as a part of this permit. Testing may be required as part of other state, federal or applicable rules.
- No Operating Permit is required for this installation.
- Approval of this permit is recommended with special conditions.

INSTALLATION DESCRIPTION

Load King is located in Sedalia, MO and manufactures dump truck beds and other steel products. Processes at the facility include grinding, gas metal arc welding, abrasive blasting, and surface coating. Load King is an existing manufacturing facility that has applied for this construction permit as part of a remedial action required by the Air Pollution Control Program.

No permits have been issued to Load King from the Air Pollution Control Program.

PROJECT DESCRIPTION

Load King has applied to permit an abrasive blasting booth, spray booth, curing oven, and associated welding/grinding(EP-01) for manufacturing of dump truck beds and booms. The abrasive blast booth (EP-02) is 17' x 38' x 20' \. Media is steel shot. The booth will be equipped with a fabric filter. The paint booth (EP-03) is 18' x 42' x 20'. The spray booth is equipped with a fabric filter. All primers and coatings are applied in the booth. The facility has a single natural gas fired curing oven (EP-04). The oven is rated at 5.28 MMBtu/hr of natural gas. Additionally, Load King has 8 natural gas space heaters (EP-05) rated at 0.08 MMBtu/hr each. Table 1 below lists the emission points for the installation.

Table 1: Installation Emission Units

Emission Point	Emissions Point Description	Potential Criteria Pollutants	Control Device	Permit Status ¹
EP-01	Welding	PM/PM ₁₀ /PM _{2.5} , Metal HAPs	N/A	New
EP-02	Abrasive Blasting	PM/PM ₁₀ /PM _{2.5}	Blast Booth and Fabric Filter	New
EP-03	Paint Booth	PM/PM ₁₀ /PM _{2.5} /VOC/HAPs	Spray Booth and Fabric Filter	New
EP-04	Curing Oven	PM/PM ₁₀ /PM _{2.5} /SO _x /NO _x /CO/VOC/HAPs	N/A	New
EP-05	Space Heaters		N/A	New
EP-06	Haul Roads	PM/PM ₁₀ /PM _{2.5}	Paved Surface	New

N/C = No Control Device is Associated with the Emission Unit

¹All installation wide emission points were considered as a part of this project for permitting and potential to emit purposes

Load King will assemble dump truck beds. Parts are brought in pre-cut and no machining is necessary. The parts arrive as kits and are assembled on site. There is minimal grinding associated with the assembly. Grinding is used to clean up welds. All materials will enter and leave the facility on a paved driveway approximately 500 feet long.

Load King has a line for manufacturing 10' dump truck beds, a line for manufacturing 16'-18' dump truck beds and a line for truck boom coating. The maximum hourly design rate of both lines is bottlenecked by assembly steps. The following table describes the assembly steps and time required for each step.

Table 2: Assembly Steps and Time

	10' Dump Truck Beds – Two Produced Each Process	16-18' Dump Truck Beds – One Produced Each Process	Truck Booms – 2 Produced Each Cycle
Blasting	1 hour	1.5 hours	N/A
Prep	0.25 hours	0.50 hours	8 hours
Direct to Metal Coating or Prime	0.50 hours	0.50 hours	N/A
Curing	N/A	0.33 hours	N/A
Sanding	N/A	0.50 hours	N/A
Paint	N/A	1 hour	0.75 hours
Final Bake	0.75 hours	0.75 hours	
Total Time to Produce	2.50 hours per two units	5.08 hours per one unit	8.75 hours per two units

Maximum hourly design rates for the paint booth were determined by calculating the amount of coating/material needed for each item produced. The 10' dump truck beds require 1 gallon of direct to metal coating (EU-03a). Load King can produce two 10' dump truck beds per 2.50 hours or approximately twenty 10' dump truck beds per day. Using a maximum of 1 gallon of direct to metal coating per 10' dump truck bed equals 20 gallons a day or 0.833 gallons per hour.

The 16'-18' dump truck beds require 1 gallon of primer (EU-03b), 1.5 gallons of coating (EU-03c), and 1 gallon of activator (EU-03d). Load King can produce one 16'-18 dump truck bed per 5.08 hours or approximately five 16'-18' dump truck beds per day. Using a maximum of 1 gallon of primer per 16-18' dump truck bed equals 5 gallons a day or 0.21 gallons per hour (EU-03b). Using a maximum of 1.5 gallon of coating per 16-18' dump truck bed equals 7.5 gallons a day or 0.31 gallons per hour (EU-03c). For the activator a maximum of 1 gallon per 16-18' dump truck bed equals 5 gallons a day or 0.21 gallons per hour (EU-03d).

The truck booms require 3.5 gallons of coating each. Load King can process two truck booms per 8.75 hours or approximately 6 booms per day. Using a maximum of 3.5 gallon of coating per truck boom equals 21 gallons a day or 0.87 gallons per hour (EU-03e).

Load King is requesting to use the following material/coatings in the paint booth (EP-03.) Load King provided material safety data sheets for each of the following.

Table 3: Coating Requested for use in Paint Booth EP-03

Material ID	Emission Unit
Axalta Black Topcoat D-108	EU-03a Direct to Metal Paint 10' Dump Truck Bed
Polyurethane Primer – ANSI 70 Gray 62-1060	EU-03b 16'-18' Dump Truck Bed Primer
Axalta Black Topcoat D-108	EU-03c 16'-18' Dump Truck Bed Coating
Axtala – Gloss White Topcoat 402-11	EU-03e Booms Coating
Axalta Actavator-9T00A	10', 16'-18' Dump Truck Bed, Booms Coating Activator
FG-062	Primer Activator FG-062

There are HAPs contained within coatings in low concentrations, the ones identified were toluene, xylene, methyl isobutyl ketone, methyl methacrylate and ethylbenzene. All identified HAPs have a SMAL of 10 tpy.

EMISSIONS/CONTROLS EVALUATION

The gas metal arc welding operation emissions (EP-01) were based on the MHDR of 2.05 lbs per hour at 8760 hours/yr and the emission factors were taken from EPA document AP-42, *Compilation of Air Pollutant Emission Factors*, Fifth Edition Chapter 12.19 *Electric Arc Welding* (January 1995). The MHDR is based on historic usage and scaled to 24 hours a day and multiplied by a safety factor of 1.5. Emissions from metal grinding associated with welding were not calculated and are expected to be minimal.

Potential emissions from the abrasive blasting processes (EP-02) were estimated using the emission factors and control efficiencies obtained from AP-42 Section 13.2.6 Abrasive Blasting, (October, 1997). An MHDR of 72.12 lbs per hour was used. The controlled PM emission factor was used to account for the use of a fabric filter. The particle size distribution of the particulate emissions was determined using the CEIDARS Appendix A: Table A – Abrasive Blasting.

The emissions from the paint booth (EP-03) were calculated using the maximum paint usage and material safety data sheets (MSDS) supplied by Load King. All available VOCs were considered to be emitted. All HAPs in this review are volatile HAPs and are also considered to be emitted. There are no particulate HAPS. All particulate matter emissions were assumed to be less than 2.5 micrometers in diameter. Coating was assigned 75 percent solids transfer efficiency per “Chapter 5 Surface Coating” of the

APTI Course 482 manual, 3rd Edition. Overspray solids are controlled by fabric filters. Solids are captured by the booth at 70 percent efficiency and controlled by the fabric filter at 95 percent efficiency. All solids were considered PM, PM₁₀, and PM_{2.5}

Natural gas combustion emissions (EP-04 and EP-05) were calculated using AP-42 Section 1.4 *Natural Gas Combustion*, (July 1998).

Emissions from haul roads (EP-06) were calculated using the predictive equation from AP-42 Section 13.2.1 *Paved Roads*, (January 2011).

The following table provides an emissions summary for this project. There are no existing potential or actual emissions available since this is a newly permitted facility. Potential emissions of the application represent the potential of the new equipment, assuming continuous operation (8760 hours per year).

Table 4: Emissions Summary (tpy)

Pollutant	Regulatory <i>De Minimis</i> Levels	Uncontrolled Potential Emissions of the Project	New Installation Controlled Potential
PM	25.0	33.11	4.21
PM ₁₀	15.0	30.00	4.12
PM _{2.5}	10.0	28.48	4.10
SO _x	40.0	0.02	0.02
NO _x	40.0	2.54	2.54
VOC	40.0	18.40	18.40
CO	100.0	2.14	2.14
Combined HAPs	25.0	0.83	0.83

PERMIT RULE APPLICABILITY

This review was conducted in accordance with Section (5) of Missouri State Rule 10 CSR 10-6.060, *Construction Permits Required*. Potential emissions of all pollutants are conditioned below de minimis levels.

APPLICABLE REQUIREMENTS

Load King shall comply with the following applicable requirements. The Missouri Air Conservation Laws and Regulations should be consulted for specific record keeping, monitoring, and reporting requirements. Compliance with these emission standards, based on information submitted in the application, has been verified at the time this application was approved.

GENERAL REQUIREMENTS

- *Start-Up, Shutdown, and Malfunction Conditions*, 10 CSR 10-6.050
- *Submission of Emission Data, Emission Fees and Process Information*, 10 CSR 10-6.110
 - Per 10 CSR 10-6.110(4)(B)2.B(II) and (4)(B)2.C(II) a full EIQ is required for the first full calendar year the equipment (or modifications) approved by this permit are in operation.
- *Restriction of Particulate Matter to the Ambient Air Beyond the Premises of Origin*, 10 CSR 10-6.170
- *Restriction of Emission of Visible Air Contaminants*, 10 CSR 10-6.220
- *Restriction of Emission of Odors*, 10 CSR 10-6.165

SPECIFIC REQUIREMENTS

- *Restriction of Emission of Particulate Matter From Industrial Processes*, 10 CSR 10-6.400

STAFF RECOMMENDATION

On the basis of this review conducted in accordance with Section (5), Missouri State Rule 10 CSR 10-6.060, *Construction Permits Required*, it is recommended that this permit be granted with special conditions.

PERMIT DOCUMENTS

The following documents are incorporated by reference into this permit:

- The Application for Authority to Construct form, dated May 15, 2019, received May 15, 2019, designating Custom Truck One Source as the owner and operator of the installation.

Attachment A
Alternative Materials Combined HAP Compliance Worksheet

This sheet covers the month of _____ in the year _____.

Material Used and HAP Name (Name, Type) ¹	Maximum Hourly Design Rate (Units) ²	Density (lb/gal) ³	Total HAP Content (Weight %) ⁴	HAP Emissions PTE (Tons/yr) ⁵
Total Combined PTE HAP Emissions (tons/year): ⁶				

1 Record the material name and HAP. If the HAP belongs to an aggregate group, record the name of the aggregate group; if it does not belong to an aggregate group, record the name of the individual HAP. The materials must match those on Attachment B.

2 Record the maximum hourly design rate and units of the material. The MHDR is 0.83 gallons/hour for 10' dump truck beds, 0.21 gallons/hr for 16-18' dump truck bed primer, 0.3125 gals/hr for 16-18' dump truck bed coating and 0.875 gallons/hr for spray booth booms. The usage must match Attachment B.

3 Record the material density. If density is not provided, the permittee may calculate the density by using the specific gravity and the following equation:

$$\text{Specific Gravity} \times 8.34 \left(\frac{\text{lb}}{\text{gallon}} \right) = \text{Density} \left(\frac{\text{lb}}{\text{gallon}} \right)$$

4 Record the HAP content from the SDS. If HAP content has a range, then use the highest value.

5 Calculate the HAP emissions by one of the following methods:

For volatile HAPs:

- i) If MHDR is in tons: Tons of MHDR x HAP Content x 8,760 = HAP Emissions per year
- ii) If MHDR is in pounds: Pounds of MHDR x HAP Content x 0.0005 x 8,760 = HAP Emissions per year
- iii) If MHDR is in gallons: Gallons of MHDR x Density x HAP Content x 0.0005 x 8,760 = HAP Emissions per year

For particulate HAPs:

- i) If MHDR is in tons: Tons of MHDR x HAP Content x 8,760 x Control Efficiency (1-0.9163) = HAP Emissions per year
- ii) If MHDR is in pounds: Pounds of MHDR x HAP Content x 0.0005 x 8,760 x Control Efficiency (1-0.9163) = HAP Emissions per year
- iii) If MHDR is in gallons: Gallons of MHDR x Density x HAP Content x 0.0005 x 8,760 x Control Efficiency (1-0.9163) = HAP Emissions per year

6 Combined PTE HAP Emissions (tons) = The sum of each material's PTE HAP emission rates (tons/year). **A Total Combined PTE HAP Emissions of less than 25.0 tons demonstrates compliance with Special Condition 6.**

APPENDIX A

Abbreviations and Acronyms

%percent	Mgal1,000 gallons
°Fdegrees Fahrenheit	MWmegawatt
acfmactual cubic feet per minute	MHDRmaximum hourly design rate
BACTBest Available Control Technology	MMBtuMillion British thermal units
BMPsBest Management Practices	MMCFmillion cubic feet
BtuBritish thermal unit	MSDSMaterial Safety Data Sheet
CAMCompliance Assurance Monitoring	NAAQSNational Ambient Air Quality Standards
CASChemical Abstracts Service	NESHAPs National Emissions Standards for Hazardous Air Pollutants
CEMSContinuous Emission Monitor System	NO_xnitrogen oxides
CFRCode of Federal Regulations	NSPSNew Source Performance Standards
COcarbon monoxide	NSRNew Source Review
CO₂carbon dioxide	PMparticulate matter
CO_{2e}carbon dioxide equivalent	PM_{2.5}particulate matter less than 2.5 microns in aerodynamic diameter
COMSContinuous Opacity Monitoring System	PM₁₀particulate matter less than 10 microns in aerodynamic diameter
CSRCode of State Regulations	ppmparts per million
dscfdry standard cubic feet	PSDPrevention of Significant Deterioration
EIQEmission Inventory Questionnaire	PTEpotential to emit
EPEmission Point	RACTReasonable Available Control Technology
EPAEnvironmental Protection Agency	RALRisk Assessment Level
EUEmission Unit	SCCSource Classification Code
fpsfeet per second	scfmstandard cubic feet per minute
ftfeet	SDSSafety Data Sheet
GACTGenerally Available Control Technology	SICStandard Industrial Classification
GHGGreenhouse Gas	SIPState Implementation Plan
gpmgallons per minute	SMALScreening Model Action Levels
grgrains	SO_xsulfur oxides
GWPGlobal Warming Potential	SO₂sulfur dioxide
HAPHazardous Air Pollutant	SSMStartup, Shutdown & Malfunction
hrhour	tphtons per hour
hphorsepower	tpytons per year
lbpound	VMTvehicle miles traveled
lbs/hrpounds per hour	VOCVolatile Organic Compound
MACTMaximum Achievable Control Technology	
µg/m³micrograms per cubic meter	
m/smeters per second	

Air Pollution Control Program

Table of Hazardous Air Pollutants and Screening Model Action Levels

Chemical	CAS #	SMAL tons/yr	Group ID	VOC	PM	Chemical	CAS #	SMAL tons/yr	Group ID	VOC	PM
ACETALDEHYDE	75-07-0	9		Y	N	CHLOROMETHYL METHYL ETHER	107-30-2	0.1		Y	N
ACETAMIDE	60-35-5	1		Y	N	CHLOROPRENE	126-99-8	1		Y	N
ACETONITRILE	75-05-8	4		Y	N	CHROMIUM (VI) COMPOUNDS		0.002	L	N	Y
ACETOPHENONE	98-86-2	1		Y	N	CHROMIUM COMPOUNDS		5	L	N	Y
ACETYLAMINOFLUORINE, [2-]	53-96-3	0.005	V	Y	Y	CHRYSENE	218-01-9	0.01	V	Y	N
ACROLEIN	107-02-8	0.04		Y	N	COBALT COMPOUNDS		0.1	M	N	Y
ACRYLAMIDE	79-06-1	0.02		Y	N	COKE OVEN EMISSIONS	8007-45-2	0.03	N	Y	N
ACRYLIC ACID	79-10-7	0.6		Y	N	CRESOL, [META-]	108-39-4	1	B	Y	N
ACRYLONITRILE	107-13-1	0.3		Y	N	CRESOL, [ORTHO-]	95-48-7	1	B	Y	N
ALLYL CHLORIDE	107-05-1	1		Y	N	CRESOL, [PARA-]	106-44-5	1	B	Y	N
AMINOBIIPHENYL, [4-]	92-67-1	1	V	Y	N	CRESOLS (MIXED ISOMERS)	1319-77-3	1	B	Y	N
ANILINE	62-53-3	1		Y	N	CUMENE	98-82-8	10		Y	N
ANISIDINE, [ORTHO-]	90-04-0	1		Y	N	CYANIDE COMPOUNDS		0.1	O	Y	N
ANTHRACENE	120-12-7	0.01	V	Y	N	DDE	72-55-9	0.01	V	Y	Y
ANTIMONY COMPOUNDS		5	H	N	Y	DI(2-ETHYLHEXYL) PHTHALATE, (DEHP)	117-81-7	5		Y	N
ANTIMONY PENTAFLUORIDE	7783-70-2	0.1	H	N	Y	DIAMINOTOLUENE, [2,4-]	95-80-7	0.02		Y	N
ANTIMONY POTASSIUM TARTRATE	28300-74-5	1	H	N	Y	DIAZOMETHANE	334-88-3	1		Y	N
ANTIMONY TRIOXIDE	1309-64-4	1	H	N	Y	DIBENZ(A,H)ANTHRACENE	53-70-3	0.01	V	Y	N
ANTIMONY TRISULFIDE	1345-04-6	0.1	H	N	Y	DIOXINS/FURANS		6E-07	D,V	Y	N
ARSENIC COMPOUNDS		0.005	I	N	Y	DIBENZOFURAN	132-64-9	5	V	Y	N
ASBESTOS	1332-21-4	0	A	N	Y	DIBROMO-3-CHLOROPROPANE, [1,2-]	96-12-8	0.01		Y	N
BENZ(A)ANTHRACENE	56-55-3	0.01	V	Y	N	DIBROMOETHANE, [1,2-]	106-93-4	0.1		Y	N
BENZENE	71-43-2	2		Y	N	DIBUTYL PHTHALATE	84-74-2	10		Y	Y
BENZIDINE	92-87-5	0.0003	V	Y	N	DICHLOROENZENE, [1,4-]	106-46-7	3		Y	N
BENZO(A)PYRENE	50-32-8	0.01	V	Y	N	DICHLOROENZENE, [3,3-]	91-94-1	0.2	V	Y	Y
BENZO(B)FLUORANTHENE	205-99-2	0.01	V	Y	N	DICHLOROETHANE, [1,1-]	75-34-3	1		Y	N
BENZO(K)FLUORANTHENE	207-08-9	0.01	V	Y	N	DICHLOROETHANE, [1,2-]	107-06-2	0.8		Y	N
BENZOTRICHLORIDE	98-07-7	0.006		Y	N	DICHLOROETHYLENE, [1,1-]	75-35-4	0.4		Y	N
BENZYL CHLORIDE	100-44-7	0.1		Y	N	DICHLOROMETHANE	75-09-2	10		N	N
BERYLLIUM COMPOUNDS		0.008	J	N	Y	DICHLOROPHENOXY ACETIC ACID, [2,4-]	94-75-7	10	C	Y	Y
BERYLLIUM SALTS		2E-05	J	N	Y	DICHLOROPROPANE, [1,2-]	78-87-5	1		Y	N
BIPHENYL, [1,1-]	92-52-4	10	V	Y	N	DICHLOROPROPENE, [1,3-]	542-75-6	1		Y	N
BIS(CHLOROETHYL)ETHER	111-44-4	0.06		Y	N	DICHLOROVOS	62-73-7	0.2		Y	N
BIS(CHLOROMETHYL)ETHER	542-88-1	0.0003		Y	N	DIETHANOLAMINE	111-42-2	5		Y	N
BROMOFORM	75-25-2	10		Y	N	DIETHYL SULFATE	64-67-5	1		Y	N
BROMOMETHANE	74-83-9	10		Y	N	DIETHYLENE GLYCOL MONOBUTYL ETHER	112-34-5	5	P	Y	N
BUTADIENE, [1,3-]	106-99-0	0.07		Y	N	DIMETHOXYBENZIDINE, [3,3-]	119-90-4	0.1	V	Y	Y
BUTOXYETHANOL ACETATE, [2-]	112-07-2	5	P	Y	N	DIMETHYL BENZIDINE, [3,3-]	119-93-7	0.008	V	Y	Y
BUTYLENE OXIDE, [1,2-]	106-88-7	1		Y	N	DIMETHYL CARBAMOYL CHLORIDE	79-44-7	0.02		Y	N
CADMIUM COMPOUNDS		0.01	K	N	Y	DIMETHYL FORMAMIDE	68-12-2	1		Y	N
CALCIUM CYANAMIDE	156-62-7	10		Y	Y	DIMETHYL HYDRAZINE, [1,1-]	57-14-7	0.008		Y	N
CAPROLACTAM (Delisted)	105-60-2					DIMETHYL PHTHALATE	131-11-3	10		Y	N
CAPTAN	133-06-2	10		Y	Y	DIMETHYL SULFATE	77-78-1	0.1		Y	N
CARBARYL	63-25-2	10	V	Y	Y	DIMETHYLAMINOAZOBENZENE, [4-]	60-11-7	1		Y	N
CARBON DISULFIDE	75-15-0	1		Y	N	DIMETHYLANILINE, [N-N-]	121-69-7	1		Y	N
CARBON TETRACHLORIDE	56-23-5	1		Y	N	DINITRO-O-CRESOL, [4,6-] (Note 6)	534-52-1	0.1	E	Y	Y
CARBONYL SULFIDE	463-58-1	5		Y	N	DINITROPHENOL, [2,4-]	51-28-5	1		Y	N
CATECHOL	120-80-9	5		Y	N	DINITROTOLUENE, [2,4-]	121-14-2	0.02		Y	N
CHLORAMBEN	133-90-4	1		Y	Y	DIOXANE, [1,4-]	123-91-1	6		Y	N
CHLORDANE	57-74-9	0.01		Y	Y	DIPHENYLHYDRAZINE, [1,2-]	122-66-7	0.09	V	Y	Y
CHLORINE	7782-50-5	0.1		N	N	DIPHENYLMETHANE DIISOCYANATE, [4,4-]	101-68-8	0.1	V	Y	N
CHLOROACETIC ACID	79-11-8	0.1		Y	N	EPICHLOROHYDRIN	106-89-8	2		Y	N
CHLOROACETOPHENONE, [2-]	532-27-4	0.06		Y	N	ETHOXYETHANOL, [2-]	110-80-5	10	P	Y	N
CHLOROBENZENE	108-90-7	10		Y	N	ETHOXYETHYL ACETATE, [2-]	111-15-9	5	P	Y	N
CHLOROBENZILATE	510-15-6	0.4	V	Y	Y	ETHYL ACRYLATE	140-88-5	1		Y	N
CHLOROFORM	67-66-3	0.9		Y	N	ETHYL BENZENE	100-41-4	10		Y	N

Air Pollution Control Program

Table of Hazardous Air Pollutants and Screening Model Action Levels

Chemical	CAS #	SMAL tons/yr	Group ID	VOC	PM	Chemical	CAS #	SMAL tons/yr	Group ID	VOC	PM
ETHYL CHLORIDE	75-00-3	10		Y	N	NITROBENZENE	98-95-3	1		Y	N
ETHYLENE GLYCOL	107-21-1	10		Y	N	NITROBIPHENYL, [4-]	92-93-3	1	V	Y	N
ETHYLENE GLYCOL MONOBUTYL ETHER (Delisted)	111-76-2					NITROPHENOL, [4-]	100-02-7	5		Y	N
ETHYLENE GLYCOL MONOHEXYL ETHER	112-25-4	5	P	Y	N	NITROPROPANE, [2-]	79-46-9	1		Y	N
ETHYLENE IMINE [AZIRIDINE]	151-56-4	0.003		Y	N	NITROSODIMETHYLAMINE, [N-]	62-75-9	0.001		Y	N
ETHYLENE OXIDE	75-21-8	0.1		Y	N	NITROSOMORPHOLINE, [N-]	59-89-2	1		Y	N
ETHYLENE THIOUREA	96-45-7	0.6		Y	Y	NITROSO-N-METHYLUREA, [N-]	684-93-5	0.0002		Y	N
FORMALDEHYDE	50-00-0	2		Y	N	OCTACHLORONAPHTHALENE	2234-13-1	0.01	V	Y	N
GLYCOL ETHER (ETHYLENE GLYCOL ETHERS)		5	P	Y	N	PARATHION	56-38-2	0.1		Y	Y
GLYCOL ETHER (DIETHYLENE GLYCOL ETHERS)		5	P	Y	N	PCB [POLYCHLORINATED BIPHENYLS]	1336-36-3	0.009	X	Y	Y
HEPTACHLOR	76-44-8	0.02		Y	N	PENTACHLORONITROBENZENE	82-68-8	0.3		Y	N
HEXACHLORO BENZENE	118-74-1	0.01		Y	N	PENTACHLOROPHENOL	87-86-5	0.7		Y	N
HEXACHLOROBUTADIENE	87-68-3	0.9		Y	N	PHENOL	108-95-2	0.1		Y	N
HEXACHLOROCYCLOHEXANE, [ALPHA-]	319-84-6	0.01	F	Y	N	PHENYLENEDIAMINE, [PARA-]	106-50-3	10		Y	N
HEXACHLOROCYCLOHEXANE, [BETA-]	319-85-7	0.01	F	Y	N	PHOSGENE	75-44-5	0.1		Y	N
HEXACHLOROCYCLOHEXANE, [DELTA-]	319-86-8	0.01	F	Y	N	PHOSPHINE	7803-51-2	5		N	N
HEXACHLOROCYCLOHEXANE, [TECHNICAL]	608-73-1	0.01	F	Y	N	PHOSPHOROUS (YELLOW OR WHITE)	7723-14-0	0.1		N	N
HEXACHLOROCYCLOPENTADIENE	77-47-4	0.1		Y	N	PHTHALIC ANHYDRIDE	85-44-9	5		Y	N
HEXACHLOROETHANE	67-72-1	5		Y	N	POLYCYCLIC ORGANIC MATTER		0.01	V	Y	N
HEXAMETHYLENE, -1,6-DIISOCYANATE	822-06-0	0.02		Y	N	PROPANE SULTONE, [1,3-]	1120-71-4	0.03		Y	Y
HEXAMETHYLPHOSPHORAMIDE	680-31-9	0.01		Y	N	PROPIOLACTONE, [BETA-]	57-57-8	0.1		Y	N
HEXANE, [N-]	110-54-3	10		Y	N	PROPIONALDEHYDE	123-38-6	5		Y	N
HYDRAZINE	302-01-2	0.004		N	N	PROPOXUR [BAYGON]	114-26-1	10		Y	Y
HYDROGEN CHLORIDE	7647-01-0	10		N	N	PROPYLENE OXIDE	75-56-9	5		Y	N
HYDROGEN FLUORIDE	7664-39-3	0.1		N	N	PROPYLENEIMINE, [1,2-]	75-55-8	0.003		Y	N
HYDROQUINONE	123-31-9	1		Y	N	QUINOLINE	91-22-5	0.006		Y	N
INDENO(1,2,3CD)PYRENE	193-39-5	0.01	V	Y	N	QUINONE	106-51-4	5		Y	N
ISOPHORONE	78-59-1	10		Y	N	RADIONUCLIDES		Note 1	Y	N	Y
LEAD COMPOUNDS		0.01	Q	N	Y	SELENIUM COMPOUNDS		0.1	W	N	Y
LINDANE [GAMMA-HEXACHLOROCYCLOHEXANE]	58-89-9	0.01	F	Y	N	STYRENE	100-42-5	1		Y	N
MALEIC ANHYDRIDE	108-31-6	1		Y	N	STYRENE OXIDE	96-09-3	1		Y	N
MANGANESE COMPOUNDS		0.8	R	N	Y	TETRACHLORODIBENZO-P-DIOXIN, [2,3,7,8]	1746-01-6	6E-07	D,V	Y	Y
MERCURY COMPOUNDS		0.01	S	N	N	TETRACHLOROETHANE, [1,1,2,2-]	79-34-5	0.3		Y	N
METHANOL	67-56-1	10		Y	N	TETRACHLOROETHYLENE	127-18-4	10		N	N
METHOXYCHLOR	72-43-5	10	V	Y	Y	TITANIUM TETRACHLORIDE	7550-45-0	0.1		N	N
METHOXYETHANOL, [2-]	109-86-4	10	P	Y	N	TOLUENE	108-88-3	10		Y	N
METHYL CHLORIDE	74-87-3	10		Y	N	TOLUENE DIISOCYANATE, [2,4-]	584-84-9	0.1		Y	N
METHYL ETHYL KETONE (Delisted)	78-93-3					TOLUIDINE, [ORTHO-]	95-53-4	4		Y	N
METHYL HYDRAZINE	60-34-4	0.06		Y	N	TOXAPHENE	8001-35-2	0.01		Y	N
METHYL IODIDE	74-88-4	1		Y	N	TRICHLORO BENZENE, [1,2,4-]	120-82-1	10		Y	N
METHYL ISOBUTYL KETONE	108-10-1	10		Y	N	TRICHLOROETHANE, [1,1,1-]	71-55-6	10		N	N
METHYL ISOCYANATE	624-83-9	0.1		Y	N	TRICHLOROETHANE, [1,1,2-]	79-00-5	1		Y	N
METHYL METHACRYLATE	80-62-6	10		Y	N	TRICHLOROETHYLENE	79-01-6	10		Y	N
METHYL TERT-BUTYL ETHER	1634-04-4	10		Y	N	TRICHLOROPHENOL, [2,4,5-]	95-95-4	1		Y	N
METHYL CYCLOPENTADIENYL MANGANESE	12108-13-3	0.1	R	N	Y	TRICHLOROPHENOL, [2,4,6-]	88-06-2	6		Y	N
METHYLENE BIS(2-CHLOROANILINE), [4,4-]	101-14-4	0.2	V	Y	Y	TRIETHYLAMINE	121-44-8	10		Y	N
METHYLENEDIANILINE, [4,4-]	101-77-9	1	V	Y	N	TRIFLURALIN	1582-09-8	9		Y	Y
METHYLNAPHTHALENE, [2-]	91-57-6	0.01	V	Y	N	TRIMETHYLPENTANE, [2,2,4-]	540-84-1	5		Y	N
MINERAL FIBERS		0	T	N	Y	URETHANE [ETHYL CARBAMATE]	51-79-6	0.8		Y	N
NAPHTHALENE	91-20-3	10	V	Y	N	VINYL ACETATE	108-05-4	1		Y	N
NAPHTHYLAMINE, [ALPHA-]	134-32-7	0.01	V	Y	N	VINYL BROMIDE	593-60-2	0.6		Y	N
NAPHTHYLAMINE, [BETA-]	91-59-8	0.01	V	Y	N	VINYL CHLORIDE	75-01-4	0.2		Y	N
NICKEL CARBONYL	13463-39-3	0.1	U	N	Y	XYLENE, [META-]	108-38-3	10	G	Y	N
NICKEL COMPOUNDS		1	U	N	Y	XYLENES (MIXED ISOMERS)	1330-20-7	10	G	Y	N
NICKEL REFINERY DUST		0.08	U	N	Y						
NICKEL SUBSULFIDE	12035-72-2	0.04	U	N	Y						

Air Pollution Control Program

Table of Hazardous Air Pollutants and Screening Model Action Levels

Chemical	CAS #	SMAL tons/yr	Group ID	VOC	PM	Chemical	CAS #	SMAL tons/yr	Group ID	VOC	PM
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Legend	
Group ID	
A	Asbestos
B	Cresols/Cresylic Acid (isomers and mixtures)
C	2,4 - D, Salts and Esters
D	Dibenzofurans, Dibenzodioxins
E	4, 6 Dinitro-o-cresol, and Salts
F	Lindane (all isomers)
G	Xylenes (all isomers and mixtures)
H	Antimony Compounds
I	Arsenic Compounds
J	Beryllium Compounds
K	Cadmium Compounds
L	Chromium Compounds
M	Cobalt Compounds
N	Coke Oven Emissions
O	Cyanide Compounds
P	Glycol Ethers
Q	Lead Compounds (except elemental Lead)
R	Manganese Compounds
S	Mercury Compounds
T	Fine Mineral Fibers
U	Nickel Compounds
V	Polycyclic Organic Matter
W	Selenium Compounds
X	Polychlorinated Biphenyls (Aroclors)
Y	Radionuclides
Notes	The SMAL for radionuclides is defined as the effective dose equivalent to 0.3 millirems per year for 7 years exposure associated with a cancer risk of 1 in 1 million