

**Statement of Basis for  
Kenworth Truck Company - Renton  
Air Operating Permit No. 17796, Renewal 2  
January 16, 2019**

**1 Purpose of this Statement of Basis**

**1.1 General**

This document summarizes the legal and factual bases for the draft permit conditions in the Kenworth Truck Company (Renton) (hereafter known as Kenworth) air operating permit to be issued under the authority of the Washington Clean Air Act, Chapter 70.94 Revised Code of Washington, Chapter 173-401 of the Washington Administrative Code and Puget Sound Clean Air Agency (PSCAA) Regulation I, Article 7. Unlike the permit, this document is not legally enforceable. It includes references to the applicable statutory or regulatory provisions that relate to Kenworth emissions to the atmosphere. In addition, this Statement of Basis provides a description of Kenworth activities and a compliance history.

**2 Why Kenworth is an Air Operating Permit Source**

Kenworth is required to have an air operating permit because the potential to emit volatile organic compounds (VOC) is in excess of 100 tons per year. Potential emissions of all hazardous air pollutants (HAPs) listed under Section 112(b) of the Federal Clean Air Act are below the applicability thresholds of 10 tons per year for any single HAP, or 25 tons per year for all HAP combined, so Kenworth is classified as an "area source" for HAP.

**3 Source Description**

**3.1 Kenworth Operations that Pertain to Air Operating Permit**

Kenworth operates a truck assembly facility on North 8<sup>th</sup> Street in Renton, Washington that produces highway and off-highway trucks. Its primary Industrial Classifications are Motor Vehicles and Car Bodies and Small Parts Fabrication. The plant was completed in 1993 and began building trucks in May of 1993.

Historically, Kenworth has emitted significant quantities of volatile organic compounds (VOCs) and hazardous air pollutants (HAPs). Most of these emissions come from painting new trucks. Kenworth has accepted VOC and HAP emission caps. While production has greatly increased at the Renton plant, VOC emissions have increased at a commensurately lower rate because Kenworth has employed low VOC paint applications. The plant has not come close to its VOC cap originally approved in 1993 and increased in 1994 and 1997.

The Renton Plant is primarily an assembly line with supporting manufacturing operations. Plant operations include truck assembly lines, surface coating, testing facilities, offices, general plant operations and maintenance. Trucks are custom painted, assembled, and tested at this plant. Completed trucks are road tested and temporarily stored on-site prior to pick up by a vehicle transporter.

Plant non-emergency utilities use natural gas solely; however, alternate fuels such as liquid natural gas (LNG) and/or propane or other alternate fuels may be used in the future. Kenworth has two diesel engines that are used to power a fire suppression water pump and an emergency generator. These engines are classified as existing, emergency, stationary compression ignition (CI), reciprocating internal combustions engines (RICE) and are regulated

under Subpart ZZZZ of 40 CFR 63. The plant also includes a wastewater treatment facility, which discharges pretreated wastewater to the sanitary sewer under a King County Industrial Waste Program pre-treatment permit.

Coating operations generate the greatest amount of air pollutant emissions from the site and are a function of customer trends toward larger interiors, painting more components, adding a clear coat for paint longevity, color coating the chassis, sound proofing, etc. In addition, changes in production rates, paint chemistry, coating application technologies, fabrication materials and techniques can affect plant emissions in many ways that are currently unforeseeable. The plant must be able to respond rapidly to customer requests in order to stay competitive in the heavy-duty truck market.

Emissions will vary from year-to-year depending on the quantity of trucks and parts coated, and the types and quantities of coatings and solvents used. VOC emissions occur from the storage, handling, mixing, use, application equipment, enhanced drying, and cleanup of VOC-containing coatings and solvents. These emissions are accounted for on a facility-wide basis only.

### **3.2 Adjacent PACCAR facilities – relative to the Kenworth AOP**

The PACCAR Renton Campus has five facilities that are located within the same overall plant boundary. This includes the Kenworth Truck Company (Renton) which is addressed in this operating permit.

The Agency completed a review of the other four facilities to determine if the facility operations should be included in the Kenworth air operating permit. In a letter dated May 27, 2003, the Agency documented their determination regarding which operations would need to be included in the Kenworth operating permit (see Attachment A). It was determined that the first three facilities listed below are managed by PACCAR, the parent corporation for Kenworth, and are not operationally related to the truck production activities. Their presence at this site reflects the availability of space owned by PACCAR and is coincidental to the location of the truck manufacturing plant. More details on individual facilities are summarized below:

1. Kenworth Research and Development (KW R&D) facility is managed by PACCAR, the parent corporation for Kenworth, and is not operationally related to the truck production activities. R&D activities support the product development efforts of the Kenworth Truck Co., which includes plants in other locations. Therefore, it was determined that these activities would not be within the scope of the operating permit. If Kenworth decides to use R&D facilities to complete a manufacturing activity on a truck for delivery from the Renton plant (e.g. overflow or relief for equipment breakdown), then this conclusion would be invalid and the R&D facility would need to be included in the permit.
2. PACCAR Parts Warehouse and Division Offices (PPD) are managed by PACCAR, the parent corporation for Kenworth, and are not operationally related to the truck production activities. There are no operational linkages to the Kenworth-Renton truck production activities.
3. Information Technology Division (ITD) is managed by PACCAR, the parent corporation for Kenworth, and is not operationally related to the truck production activities. There are no operational linkages to the Kenworth-Renton truck production activities.
4. Active Transport truck delivery contractor operations are related to the truck production in that they are the delivery contractor for completed trucks. However, at the time of the determination, there were no regulated emission generating activities on this site. The Agency has other operating permit sources which have contractors operating within the

boundaries of their facility, and the owner of the source is responsible for the contractor's activities within the scope of their operating permit. For the Kenworth facility, it is a moot point, as the operations do not involve any regulated emission units or specific permit requirements under the operating permit. These activities can be considered within the scope of the operating permit (even though not specifically identified as an emission unit or activity), and their operations would only fall within the facility wide requirements of the permit.

### **3.3 Permitted Equipment and Operations**

A review of new source permitting for the facility was conducted as summarized in Section 4.1 of this document.

## **4 Permitting History**

### **4.1 New Source Review Permitting for the Facility**

A summary of the new source review permitting at the facility is provided below. Many of the historical permits are obsolete since they have been cancelled and superseded by newer permits. However, this provides a history of activities at the facility and why existing limits are currently in place.

Notice of Construction 4212 (obsolete): On November 22, 1991, PACCAR submitted an NOC application for the construction of a heavy-duty Kenworth truck plant in Renton. The project scope included assembling and painting Kenworth trucks in four process areas (20 trucks/day): cab painting, chassis painting, touch-up painting, and small parts painting. In addition to the assembly and painting operation, proposed air emission sources included a pyrolytic oven, solvent recovery still, storage tanks and indoor fuel tank welding operations. The original application included a complete top-down best available control technology (BACT) analysis.

On January 6, 1992, during the course of PSCAA's review, EPA designated the area encompassing Renton as an ozone nonattainment area. As a result, PACCAR was required to submit additional information to demonstrate compliance with the Agency's regulations for new sources in nonattainment areas. This included:

- Demonstration that the lowest achievable emission rate (LAER) would be employed.
- Obtaining required VOC offsets – process changes at PACCAR's Seattle Kenworth plant were made to offset VOC emissions at the Renton plant.

Order of Approval No. 4212 was issued on March 2, 1992 for one 20 truck per day painting and assembly plant with four process areas (cab painting, chassis painting, touch-up painting, and small parts painting), a pyrolytic oven, a still, storage tanks, and fuel tank welding operations. Facility-wide limits were set at 85 tons per year of VOC emissions with a requirement to provide 94 tons per year in offsets. Process changes at PACCAR's Seattle Kenworth plant were made to obtain these necessary offsets with additional emission reductions banked (148 tons per year total). LAER included coating VOC content limits of 3.5 pounds per gallon (lb/gal) for the chassis paint, the exterior cab prime, the cab topcoat & clear coat, and the touch-up & repair process areas. For the interior cab prime and small parts process areas, VOC content limits were set at 6.0 lb/gal (applied with HVLP or equivalent) or 3.5 lb/gal when such coatings were developed.

Notice of Construction 4972 (obsolete): On June 29, 1993, Order of Approval No. 4972 was issued to Kenworth for the addition of three emission units inadvertently missed in the original Notice of Construction application. This included the following equipment:

- Bump and Grind Process Unit where fiberglass cab and sleeper surfaces are roughened in preparation for paint application. This was accomplished using hand sanders in an area which is partially enclosed by partitions. This is a downdraft booth rated at 32,000 cubic feet per minute (cfm) with dry filters to capture particulate matter emissions (no VOC solvents used in this area).
- Sand and repair process unit where painted cabs and sleepers that do not meet specifications are sent so that flawed surfaces can be sanded. This is a downdraft booth rated at 33,400 cfm with dry filters to capture particulate matter emissions (no VOC solvents used in this area).
- Prep and Seal Booth rated at 35,788 cfm where a solvent mixture is used to wipe grease and dirt from cab and sleeper surfaces prior to entering the cab washer. VOC emissions are associated with this operation.

A revised equipment list was included in the application. No specific conditions were included in the final Order.

Notice of Construction 4895 (obsolete): On July 14, 1993, Order of Approval No. 4895 was issued to Kenworth for the addition of makeup air units and heater for providing heat to the plant. All permitted units are fueled on natural gas. The final Order limits facility-wide natural gas combustion to 421 million standard cubic feet per year and requires monthly records to be kept for natural gas usage.

Notice of Construction 5475 (obsolete): On May 23, 1994, Kenworth requested the current VOC emission cap of 85 tons per year be increased by an additional 99 tons per year to 184 tons per year. Increases were due to increased priming of truck chassis, additional component painting, new truck models which required more paint, additional base coat and clear coat finish, and increased usage of cleaning solvent and adhesives with larger surfaces. Kenworth was also proposing to increase production. Order of Approval 5475 was issued on November 1, 1994. The Order permitted an increase in VOC emissions from chassis priming by 5.01 tons per year (tpy), from new truck models and additional component painting by 32.09 tpy, from base coat/clear coat finish application by 59.35 tpy, and from further additions of cleaners, adhesives and sealants by 2.50 tpy, all for a total of 98.95 tons per year increase of VOC emissions for a new plant-wide VOC emissions total of 183.95 tons per year. This Order included the VOC content limits in the original facility-wide limit.

Notice of Construction 6074 (obsolete): This Order was originally issued on August 16, 1995. The original permit application requested consolidation of requirements in previously issued Orders of Approval as part of the operating permit process. It combined the Seattle and Renton plants and cancelled and superseded Orders of Approval 5475, 4212, 4895 and 4972. This permit specified the 184 tpy facility-wide VOC limit and provided an updated listing of equipment.

Notice of Construction 6074 Modification 1: Order of Approval No. 6074 Modification 1 was subsequently issued on August 8, 2003 to allow use of acetone and other negligibly reactive compounds as substitutes for Hazardous Air Pollutant (HAP)- and Volatile Organic Compound

(VOC)-classified solvents in topcoats, primers, gun wash thinner, and other products. This Order will become obsolete with issuance of Order 11587.

#### **4.2 Regulatory Orders Issued to the Facility**

The Orders include facility-wide emission limits, and the proposed Order 11587 includes a list of emission equipment that has been reviewed under Regulation I, Article 6.

Regulatory Order 6654 (obsolete): Kenworth requested an alternative means of compliance to meet the requirements of Regulation II, Section 3.04(e). This required application of VOC-containing material to any Group I or II vehicle or mobile equipment or their parts and components to be applied with high volume, low pressure (HVLP) application spray equipment, electrostatic application spray equipment or other high transfer efficiency application methods listed in the rule or approved by the Control Officer. PSCAA Board Resolution No. 848 (adopted April 10, 1997) approved General Regulatory Order No. 6654 as an Alternate Means of Compliance with PSCAA's VOC content limits for vehicles, as provided for in Regulation I, Section 3.23. Kenworth was allowed to use conventional spray equipment provided it does not exceed 3.5 pounds of VOC content per gallon of paint for topcoat and primer when using this equipment. This alternative means of compliance was carried forward into condition no. 2 of General Regulatory Order No. 8344 (adopted on July 24, 2003) which cancelled and superseded General Regulatory Order 6654. General Regulatory Order 8344 allowed Kenworth to not count negligibly reactive compounds as a VOC when computing pounds of VOC per gallon of coating.

Regulatory Order 6977 (obsolete): Kenworth requested an increase in facility-wide VOC emissions to meet customer demand for higher production levels. In addition, new models of trucks were being developed that were larger than current models, had more surface area, and required additional cleaning, priming and painting. A full top-down BACT analysis was submitted with the application. According to the engineering review, PSD permitting was not triggered. This Order was issued on October 21, 1997 and increased the facility-wide VOC emission limit to 383 tons per year. This Order was cancelled and superseded by Order of Approval 6074 Modification 1 dated August 8, 2003 to allow use of acetone and other negligibly reactive compounds as substitutes for Hazardous Air Pollutant (HAP)- and Volatile Organic Compound (VOC)-classified solvents in topcoats, primers, gun wash thinner, and other products

Regulatory Order 8344: Kenworth requested approval to substitute acetone-based thinner for HAP-based thinner for topcoats, primers, gun wash thinner and other products. A report was submitted showing coating reformulation with acetone which adequately demonstrated to the Agency that the use of negligibly reactive compounds was in conformance with the objectives stated in Regulation II, Section 1.02. Regulation II, Section 1.02 states that the agency policy is to control emissions of VOCs to the extent needed to attain and maintain compliance with the National Ambient Air Quality Standards for ozone, and to minimize emissions of stratospheric ozone depleting compounds and toxic organic compounds. Section 1.02 also states that the use of water-based, high solids, or powder coatings and water-based cleaning materials were preferred methodologies for compliance with Regulation II. Section 1.02 also specified the substitution of negligibly reactive compounds shall not be an acceptable means of compliance. Based on a review of Board Resolution No. 700, the main intent of this clause was to address the substitution with chlorofluorocarbons which could contribute to depletion of stratospheric ozone. EPA excludes acetone in the definition of VOC since it is a negligibly reactive compound, and does not contribute to depletion of the stratospheric ozone. Therefore, it was resolved that acetone could be used as a substitute for HAP- and VOC-classified solvents in topcoats, primers, gun wash and thinner.

This Order was approved in Board Resolution No. 1006 on July 24, 2003. It was “bundled” with the Application for Notice of Construction No. 6074, as well as an additional General Regulatory Order, No. 8884. This Order, along with the use of conventional spray guns as an alternate means of compliance (Condition No. 2 of 8344) will become obsolete with issuance of Order 11587.

Regulatory Order 8884: Kenworth requested a voluntary limit on their facility-wide emissions of hazardous air pollutants (HAPs). New coating formulations, in which negligibly reactive non-HAP and non-VOC are substituted for hazardous air pollutants, made it possible for Kenworth to become a synthetic minor for hazardous air pollutants. This Order was approved on July 24, 2003. It was “bundled” with the Application for Notice of Construction No. 6074, as well as an additional General Regulatory Order, No. 8344. This Order will become obsolete with issuance of Order 11587.

Draft Regulatory Order 11587: As part of this operating permit renewal process, it was determined that references to definitions in previous Orders needed to be updated to reflect the current regulations. The proposed Order 11587 will incorporate limits in existing Orders 6074, 8344, and 8884 (except for the use of conventional spray guns as an alternate means of compliance) There are no changes to emission limits, but the definitions of VOC and HAP will be updated to be consistent with current regulations. The new Order will also include an updated list of equipment that has been permitted to operate at this location through the Agency's Notice of Construction program. This update is being processed as part of this Title V operating permit renewal.

### **4.3 Operating Permit Issuance and Renewal**

#### **4.3.1 Issuance of Original Permit**

An air operating permit application was received by PSCAA from the Kenworth facility on June 7, 1995. On August 1, 1995, PSCAA issued written notification to Kenworth that the application met the completeness criteria contained in WAC 173-401-500(7).

PSCAA issued the Kenworth Air Operating Permit on August 24, 2000.

#### **4.3.2 Minor Modification 1**

On September 22, 2000 Kenworth submitted a Notice of Construction Application which requested approval to use acetone and other negligibly reactive compounds as substitutes for HAP- and VOC-classified solvents in topcoats, primers, gun wash thinner, and other products. The US EPA had determined that acetone was “negligibly reactive” and revised the definition of “volatile organic compound (VOC)” to exclude acetone.

On July 8, 2002 Kenworth also requested a change to the name of the responsible official, to Douglas J. Baugh, Plant Manager.

PSCAA reviewed these requests and took the following actions:

- PSCAA issued General Regulatory Order No. 8344 to allow use of acetone and other negligibly reactive compounds as substitutes for HAP- and VOC-classified solvents in topcoats, primers, gun wash thinner, and other products on July 24, 2003. General Regulatory Order No. 8344 superseded and cancelled General Regulatory Order No. 6654, dated April 10, 1997.

- PSCAA issued Notice of Construction Order of Approval No. 6074 Modification 1 to allow use of acetone and other negligibly reactive compounds as substitutes for Hazardous Air Pollutant (HAP)- and Volatile Organic Compound (VOC)-classified solvents in topcoats, primers, gun wash thinner, and other products on August 8, 2003. This modification superseded Orders of Approval No. 6074, dated August 16, 1995 and No. 6977 dated October 21, 1997.

These changes could not be done “off-permit” as existing requirements in the AOP (the original NOC Conditions) specifically required that acetone be counted as a VOC. PSCAA subsequently determined that the Kenworth AOP would have to undergo a Minor Permit Modification. Therefore, the permit was opened and a minor permit modification was issued.

#### **4.4 Renewal 1**

On August 24, 2004 Kenworth submitted a Title V renewal application for the facility. The application consisted of a cover letter and “marked up” copies of the existing AOP and SOB. Critical items required under WAC 173-401-710, such as a compliance plan and certification by the responsible official, were included. On September 2, 2004 PSCAA sent a letter to Kenworth indicating that the renewal application had been found to be complete. On March 20, 2006 Kenworth requested that the name of the responsible official be changed. This change was incorporated into the draft AOP renewal on March 27, 2006 rather than as an Administrative change to the current AOP. Renewal 1 was issued on February 22, 2007.

The Kenworth AOP was amended administratively as provided under WAC 173-401-720 to incorporate key personnel changes. Amended permits were issued on June 10, 2008, March 23, 2010, March 19, 2012, February 27, 2013, March 11, 2014, February 16, 2016 and March 26, 2018.

#### **4.5 Renewal 2**

On February 18, 2011 Kenworth submitted their second Title V renewal application. The application was found to be complete on February 24, 2011. During the course of Renewal 2 the permit was generally updated, and those changes are described in detail throughout this Statement of Basis.

### **5 Compliance History**

#### **5.1 Compliance and Inspection history prior to issuance of the original AOP**

The Kenworth facility has been inspected at least annually by PSCAA since 1993.

There have been odor complaints filed with PSCAA specifically naming Kenworth as the source of paint odors. None of these complaints have been verified by PSCAA; however, PSCAA has detected off-site paint odors when positioned downwind of Kenworth.

#### **5.2 Compliance history since issuance of the original AOP**

PSCAA has taken the following enforcement actions against Kenworth since the first AOP renewal:

**Table 1. Written Warnings and Notices of Violation: Feb. 2007 – August 2018**

WW or NOV # <sup>1</sup>	Violation Date	Issue Date	Case closed?	Applicable Reg. or permit	Comment
WW 2-009812	3/23/16	4/21/16	Yes	AOP No. 17796, Section V.Q.2	Failure to submit semi-annual report within 30 days after the end of the reporting period (electronic submittal)

Notes: <sup>1</sup> Written warnings are numbered with a 2- prefix; Notices of Violation have a 3- or a 4- prefix.  
<sup>2</sup> Corrective actions were satisfactorily completed by Kenworth

There are no outstanding compliance issues for this facility.

## 6 Emission Inventory

Emissions at this facility come principally from coating operations and to a minor extent from assembly and maintenance operations. Emission levels depend upon the number of trucks the plant is producing at any given time. The plant recently has been operating for approximately 2,080 hours/yr. Kenworth has in the past operated for approximately 4,160 hours/yr with potential to operate as many as 6,280 hours/yr in the future, depending on truck demand. The table below shows emissions for the previous four years from surface coating operations (VOCs and HAPs) and fuel combustion.

The emissions of common pollutants are listed below:

**Table 2 Emission inventory summary since last permit renewal, tons per year**

Pollutant	2008	2009	2010	2011	2012	2013	2014	2015	2016
Carbon monoxide (CO)	3	1	<1	3	3	3	2	2	2
Nitrogen oxides (NOX)	4	1	1	3	3	3	3	3	2
Particulate matter (PM10)	0.1	<0.1	<0.1	<0.1	<0.1	0.2	0.2	0.2	0.2
Particulate matter (PM2.5)		<0.1	<0.1	<0.1	<0.1	0.2	0.2	0.2	0.2
Sulfur oxides (SO2)	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Volatile organic compounds (Total VOC)	68	53	8	16	59	49	59	60	33
Total HAP	1	1	<1	2	2	2	2	1	<1

## 7 Compliance Assurance Monitoring, NESHAP and NSPS Applicability Review

### 7.1 Compliance Assurance Monitoring

The Compliance Assurance Monitoring (CAM) rule in 40 CFR Part 64 requires owners and operators to monitor the operation and maintenance of their control equipment so that they can evaluate the performance of their control devices and report whether or not their facilities meet established emission standards. If owners and operators of these facilities find that their control equipment is not working properly, the CAM rule requires them to take action to correct any malfunctions and to report such instances to the appropriate enforcement agency (i.e., State and local environmental agencies). Additionally, the CAM rule provides some enforcement tools



that will help State and local environmental agencies require facilities to respond appropriately to the monitoring results and improve pollution control operations.

The CAM rule applies at major sources with emission units that have control devices, and emissions from the emission unit could exceed 100 tons per year if the control device was not operated. On August 24, 2004, Kenworth submitted an analysis to the Agency as part of their Title V permit renewal application. The only pollutant with a control device would be particulate matter emitted from the spray coating operations. Kenworth evaluated potential to emit for particulate matter from each emission unit and found that CAM was not applicable since emissions could not exceed 100 tons per year.

## 7.2 NESHAP Applicability

As part of the renewal process, the Agency reviewed federal National Emissions Standards for Hazardous Air Pollutants (NESHAPs) that might apply to this facility to determine applicability. A summary of the review is included below:

### 7.2.1 NESHAP: Stationary Reciprocating Internal Combustion Engines (40 CFR 63 Subpart ZZZZ)

The facility currently operates two diesel-fueled emergency generators. Both were installed prior to 1994 (existing engines). The generators are subject to the Reciprocating Internal Combustion Engines (RICE) NESHAP with applicable requirements listed in Conditions 2.44 through 2.59 of the operating permit. This includes the work practice standards identified in Table 2d of the NESHAP, the requirement to operate the generator in a manner consistent with safety and good air pollution control practices for minimizing emissions, and the requirement to operate the generator according to manufacturer's emission-related written instructions. Since these are emergency generators, there are also requirements to track hours of operation and limit hours of non-emergency operations. In accordance with 40 CFR 63.6645(a)(5), the initial notification and notification of compliance are not required for existing emergency RICE.

### 7.2.2 Inapplicable NESHAPs

Other NESHAPs reviewed for potential applicability and determined to be inapplicable are listed below and included in Section 8 of the operating permit. This is not an exhaustive list of all NESHAPs but ones that might apply to this facility based on current operations.

Regulation	Description	Basis for Inapplicability
40 CFR Part 60 Subpart MM	Performance standards for automobile and light duty truck surface coating operations.	No surface coating of automobiles or light duty trucks occurs at its facility and Kenworth would need to modify this permit to do so.
40 CFR Part 60: Subpart K Subpart Ka Subpart Kb	Standards of Performance for VOC Storage Vessels	Do not apply since Kenworth does not have any storage tanks with a storage capacity of greater than 40 m <sup>3</sup> (10,568 gal) and will need approval to install any such vessels.
40 CFR Part 63 Subpart Mmmm	Miscellaneous Metal Parts and Products Surface Coating NESHAP.	Kenworth is subject to a federally enforceable order, PSCAA General Regulatory Order No. 11587 dated 1/16/18 that limits its emissions of hazardous air pollutants (HAPs). The order limits HAP emissions to less than major source thresholds.

Regulation	Description	Basis for Inapplicability
40 CFR Part 63 Subpart PPPP	Plastic Parts Surface Coating NESHAP.	Kenworth is subject to a federally enforceable order, PSCAA General Regulatory Order No. 11587 dated 1/16/19 that limits its emissions of hazardous air pollutants (HAPs). The order limits HAP emissions to less than major source thresholds.
40 CFR Part 63 Subpart DDDDD	Industrial, Commercial, and Institutional Boilers and Process Heaters NESHAP.	Kenworth is subject to a federally enforceable order, PSCAA General Regulatory Order No. 11587 dated 1/16/19 that limits its emissions of hazardous air pollutants (HAPs). The order limits HAP emissions to less than major source thresholds.
40 CFR Part 63 Subpart IIII	Auto and Light Duty Trucks Surface Coating NESHAP	No surface coating of automobiles or light duty trucks occurs at its facility and Kenworth would need to modify this permit to do so.  Kenworth is subject to a federally enforceable order, PSCAA General Regulatory Order No. 11587 dated 1/16/19 that limits its emissions of hazardous air pollutants (HAPs). The order limits HAP emissions to less than major source thresholds.
40 CFR Part 63 Subpart CCCCC	Gasoline Dispensing Facilities (Area Source) NESHAP	Kenworth does not dispense gasoline
40 CFR Part 63 Subpart XXXXXX	Metal Fabrication and Finishing (Area Source) NESHAP	Per the 63.11522 definition of " <i>primarily engaged</i> " (e.g. "where this production represents at least 50% of the production at a facility") and according to 63.11514, Kenworth is not subject to this subpart because Kenworth is not <i>primarily engaged</i> in any of the applicable source categories. The applicable source categories are: the operation of metal fabrication and finishing of Electrical and Electronic Equipment; Metal Products; Plate Work (Boilers); Structural Metal Manufacturing; Heating Equipment; Industrial Machinery and Equipment; Iron and Steel Forging; Primary Metal Products; and Valves & Pipe Fittings.

Regulation	Description	Basis for Inapplicability
40 CFR Part 63 Subpart HHHHHH	Paint Stripping and Miscellaneous Surface Coating Operations at Area Sources NESHAP	<p>Kenworth is not involved in the activities listed in 63.11169 and does not perform the activities listed in 63.11170.</p> <ul style="list-style-type: none"> <li>• Kenworth does not perform paint stripping operations that involve the use of chemical strippers that contain MeCl.</li> <li>• Kenworth does not perform autobody refinishing operations. Kenworth is an Original Equipment Manufacturer and a vehicle assembly plant. Per the 63.11180 definition of <i>"Motor vehicle and mobile equipment surface coating,"</i> spray coating operations at Kenworth are not included in the Subpart because Kenworth is a vehicle assembly plant.</li> </ul> <p>Kenworth does not spray apply coatings containing the target HAPs to parts that are not motor vehicles or mobile equipment.</p>

**7.3 NSPS**

As part of the renewal process, the Agency reviewed federal New Source Performance Standards (NSPS) that might apply to this facility to determine applicability. A summary of the review is included below:

**7.3.1 Standards of Performance for Stationary Compression Ignition Internal Combustion Engines (40 CFR Part 60, Subpart IIII)**

The provisions of the NSPS apply to owners or operators of stationary compression ignition (CI) internal combustion engines (ICE) that commence construction after July 11, 2005 where the stationary CI ICE are manufactured after April 1, 2006. The permittee does not operate any engines that meet these criteria. If new engines are installed, they would be required to meet the requirements in the NSPS so it is not listed as an inapplicable requirement.

**8 Explanation of Applicable Requirements Tables and Compliance Methods**

Applicable requirements are listed in several sections of this operating permit as outlined below. The permit only lists the requirements that PSCAA has determined to be within the scope of the definition of "applicable requirements" under the operating permit program. Kenworth is legally responsible for complying with all applicable requirements of the operating permit as well as other requirements that do not fit the definition of "applicable requirements" found in Chapter 173-401 Washington Administrative Code (WAC). Some of the applicable requirements contain terms or monitoring, maintenance and recordkeeping conditions that require detailed explanation in this statement of basis. The specific requirements are listed below, along with any necessary explanations in monitoring, maintenance, and recordkeeping conditions.

Applicable requirements that are not ongoing are not included in the permit because they are not in effect during the term of the permit (a.k.a. "obsolete"). However, these requirements are addressed here in the statement of basis.

## 8.1 Requirement Tables

Sections 1 and 2 of the permit have applicable requirements set up in tables. Section 1 contains the requirements that apply facility-wide to all the emission units regulated by this permit. These requirements also apply to emission units identified in Section 2 of the permit. If the compliance method for any requirement in Section 1 is more extensive for a specific emission unit, that requirement is repeated in Section 2 of the permit with the additional monitoring, maintenance and recordkeeping requirements.

The tables list the citation for the “enforceable requirement” and the adoption or effective date in the second column. In some cases, the effective dates of the “Federally Enforceable” requirement and the “*State Only*” requirement are different because either the state (or local authority) has not submitted the regulation to the Environmental Protection Agency (EPA) for approval into the State Implementation Plan (SIP), or the state (or local authority) has submitted it and the EPA has not yet approved it. “*State Only*” adoption dates are in italicized font, and shall be understood to include Ecology and PSCAA. When the EPA does approve the new requirement into the SIP, the old requirement will be automatically replaced and superseded by the new requirement. The new requirement will be enforceable by the EPA as well as PSCAA from the date that it is adopted into the SIP, and the old requirement will no longer be an applicable requirement. Some requirements in WAC 173-400-040 may be deleted from PSCAA SIP if it is determined there is a corresponding rule being implemented by PSCAA that applies only to sources in our jurisdiction. In these cases, only the local rule will apply if EPA removes the requirement from the SIP. This is consistent with the language in the 12/29/12 version of WAC 173-400-020(1). “The provisions of this chapter shall apply statewide, except for specific subsections where a local authority has adopted and implemented corresponding local rules that apply only to sources subject to local jurisdiction as provided under RCW 70.94.141 and 70.94.331.”

The requirement tables in Sections 1 and 2 also contain a brief description of the enforceable requirement. This description is not an enforceable condition. In the event of conflict or omission between the information contained in the brief description and the actual statute or regulation cited, the requirements and language of the actual statute or regulation cited shall govern. For more information regarding any of the requirements cited in the second column, refer to the actual requirements cited.

The "Compliance Method" listed in the tables refers to permit conditions below the tables that include monitoring, recordkeeping and reporting obligations the permittee must conduct to comply with the permit. Following the monitoring method is an enforceable requirement of this permit.

The "Reference Test Method" listed in the requirements table is the test method to be used when a source test is required to determine compliance. In some cases where the enforceable requirement does not cite a test method, one has been added. If a reference test method is not listed with the requirement, this means a test method is not applicable to the requirement. Reference Test Methods included in the permit are listed in Section 7 of the permit and include the applicable averaging period.

**Changes in AOP Renewal Process:** The AOP renewal reformats Sections 1 and 2 so that all facility-wide requirements and the corresponding compliance methods are in Section 1, and the emission unit specific requirements and corresponding compliance methods are in Section 2. The intent was to make it easier to connect the applicable requirement and the compliance method.

## 8.2 Compliance Methods

As noted above, compliance methods listed in the enforceable requirements table are permit conditions listed below the tables. The compliance methods include monitoring, recordkeeping and reporting obligations specific to the requirement that will be used by the permittee in determining if they are in continuous or intermittent compliance. In some cases where the applicable requirement has little or no ongoing monitoring requirements, monitoring has been added. This is called “gapfilling” and is authorized under WAC 173-401-615(1)(b).

Whenever PSCAA uses a “gap-filling” monitoring method, we determine the monitoring frequency using criteria contained in EPA’s April 30, 1999 Draft *Periodic Monitoring Technical Reference Document*. We consider “the five criteria” in determining how often the facility should perform a monitoring activity: hourly, once per shift, daily, weekly, monthly, quarterly, annually, or once per five-year permitting period. The five criteria are:

The five criteria are:

(1) Initial compliance. One source may have never violated a requirement, but it still applies. The next source, however, may really have to work to stay in compliance with the requirement. Walk-around inspections for fugitive emissions should be done more frequently at a steel mill than a truck assembly facility, for example.

(2) Margin of compliance. The monitoring method and frequency are designed so that the source will identify potential problems early and take corrective action before a violation occurs. The generic opacity limit on a fabric filter control device might be 20%, but a properly maintained baghouse should not have any visible emissions at all.

(3) Variability of process and emissions. A highly variable process may need more frequent watching than one that runs only intermittently, or one that runs continuously at an “easy” rate.

(4) Environmental impacts of problems. More frequent inspections would be required for a process for which a maintenance problem is likely to result in emissions that would have a significant environmental impact.

(5) Other technical considerations. The facility is required to periodically inspect and perform routine maintenance on all equipment in accordance with an acceptable operation and maintenance (O&M) Plan. What technical aspects of the equipment under consideration would influence inspection frequency above and beyond O&M Plan requirements? Usually it is sufficient to operate and maintain (and monitor) equipment in accordance with manufacturer’s instructions.

## 9 General Facility-wide Emission Limits

### 9.1 RACT Requirement (Condition 1.1)

In the SIP approved version of WAC 173-400-040, the first paragraph specifies requirements when two or more emission units are connected to a common stack. It also specifies all emission units are required to use reasonably available control technology (RACT). This same language is included in the current version of WAC 173-400-040(1), but is a State Only requirement.

Since there are no emission units at the facility that are connected to a common stack, the portion of the description has been removed to avoid confusion. There is no monitoring required. Condition 6.16 of the permit specifies that in accordance with WAC 173-401-605(3),

emission standards and other requirements contained in rules or regulatory orders in effect at the time of this operating permit renewal shall be considered RACT for purposes of permit renewal.

**Changes in the AOP Renewal:** The requirement paraphrase no longer has the first paragraph regarding emission units at the facility that are connected to a common stack. As noted above, this does not pertain to operations at Kenworth.

## 9.2 Opacity Standards (Condition 1.2)

Both WAC 173-400-040(1) and PSCAA Regulation I, Section 9.03 standards are 20% opacity and apply to all stationary sources. There are two versions of Regulation I, Section 9.03: the federally enforceable, SIP-approved version and the "STATE ONLY," non-SIP-approved version. There is also an older version of WAC 173-400-040(1) that is currently in the PSCAA SIP. Once EPA deletes the 9/20/93 version of WAC 173-400-040(1) from the PSCAA SIP, only the 3/25/04 version of Reg. I, Section 9.03 will apply since Regulation I, Section 9.03 is a corresponding local rule in accordance with WAC 173-400-020(1).

The compliance method is included in Condition 1.16 and requires quarterly visual inspections of all emission points at Kenworth, with the source taking corrective action or using the reference test method, Ecology Method 9A, to determine opacity if any visible emissions are noted. Based on a review of the facility activities, including compliance evaluations, the basis for quarterly monitoring is still valid and the permit renewal retains the same monitoring requirements.

**Changes in the AOP Renewal:** The monitoring method and frequency for the opacity monitoring has not changed, but the recordkeeping requirements have been included in the compliance method and language has been added to make it clear that failure to implement one of the response actions must be reported as a deviation. This reflects updated permit language being used by the Agency.

## 9.3 Particulate Matter Standards (Conditions 1.3 through 1.6)

### 9.3.1 General Process Units

PSCAA Regulation I, Section 9.09 limits particulate emissions to 0.05 grain per dry standard cubic foot (gr/dscf) from equipment used in a manufacturing process. WAC 173-400-060 limits particulate emissions to 0.1 gr/dscf from general process units. Once EPA deletes the 3/22/91 version of the WAC from the PSCAA SIP, only Regulation I, Section 9.09 will apply since Regulation I, Section 9.09 is a corresponding local rule in accordance with WAC 173-400-020(1).

The monitoring method is based on the fact that particulate emissions less than 0.05 gr/dscf usually do not result in visible emissions and, therefore, the permit requires the same monitoring method at the same frequency as the opacity requirements in Requirement 1.2. The emission units that are general process units are unlikely to generate particulate matter emissions above this grain loading standard if operating as permitted. Surface preparation areas, including overspray from sanding and touch-up painting, generate fine particulate emissions in the form of fiberglass dust as the truck body parts are sanded. All such activities are done in enclosed areas that are vented to high-efficiency filters, maintained in accordance with the facility O&M Plan. Catastrophic failure of a dust collector or spray booth filtration system might cause a deviation of the particulate standard, but additional monitoring is required for these emission units.

**Changes in the AOP Renewal:** The monitoring method and frequency has not changed, but the recordkeeping requirements have been included in the compliance method and language has been added to make it clear failure to implement one of the response actions must be reported as a deviation. This reflects updated permit language being used by the Agency.

### 9.3.2 Combustion Sources

PSCAA Regulation I, Section 9.09 limits particulate emissions to 0.05 gr/dscf corrected to 7% oxygen from fuel burning equipment (i.e., equipment that produces hot air, hot water, steam, or other heated fluids by external combustion of fuel) combusting natural gas. WAC 173-400-050(1) limits particulate emissions to 0.1 gr/dscf corrected to 7% O<sub>2</sub> from combustion units (Applies to units using combustion for waste disposal, steam production, chemical recovery or other process requirements; but excludes outdoor burning). Kenworth does not have any emission units to which this requirement can be applied, but it is a requirement that applies to all industrial facilities, statewide. Once EPA deletes the 3/22/91 version of the WAC from the PSCAA SIP, only Regulation I, Section 9.09 will apply since Regulation I, Section 9.09 is a corresponding local rule in accordance with WAC 173-400-020(1).

All the fuel burning equipment emission units at the facility burn natural gas, although they could burn propane, butane or liquid natural gas. These fuels have very low particulate matter emissions when maintained and operated in good working order and should not have visible emissions. Therefore, the Agency has determined that the same compliance method as is used for particulate matter standards for general process units is adequate – quarterly opacity monitoring.

**Changes in the AOP Renewal:** The existing permit refers to general facility-wide inspections, but these do not specifically address visible emissions or opacity. Therefore, the AOP renewal now refers to the quarterly opacity monitoring for the compliance method for this requirement. The recordkeeping requirements have been included with the compliance method and language has been added to make it clear that failure to implement one of the response actions must be reported as a deviation. This reflects updated permit language being used by the Agency.

### 9.4 Fugitive Emissions (Conditions 1.7 and 1.8)

The fugitive dust requirements are addressed in Regulation I, Section 9.15 and WAC 173-400-040(3) and (8). PSCAA Regulation I, Section 9.15 and WAC 173-400-040(3) and (8) all require reasonable precautions to minimize or prevent fugitive emissions. PSCAA's rule also describes specific examples of reasonable precautions. The current version of Regulation I Section 9.15 is federally enforceable. Once EPA deletes the 9/20/93 version of WAC 173-400-040(8) from the PSCAA SIP, only Reg. I, Section 9.15 will apply since Regulation I, Section 9.15 is a corresponding local rule in accordance with WAC 173-400-020(1). Changes to the state regulation have caused WAC 173-400-040(3) to be renumbered as WAC 173-400-040(4). The current version of WAC 173-400-040(4) has a different date than the federally enforceable version in the SIP. WAC 173-400-040(4)(a) (7/1/16) will become federally enforceable upon adoption into the SIP and will replace the 9/20/93 version of WAC 173-400-040(3). However, there are no substantive difference in the fugitive dust requirements for the SIP and *State only* versions of the rule. Facility-wide inspections and complaint response are sufficient to monitor for changes that would cause a fugitive emission or unexpected buildup of dust on the roadways and parking lots.

**Changes in the AOP Renewal:** The monitoring method and frequency has not changed, but the language has been updated to reflect the updated format. For facility-wide inspections,

Kenworth is required to examine/inspect the same elements as is currently required. For both the facility-wide inspections and complaint response, recordkeeping requirements have been included in the compliance methods and language has been added to make it clear failure to implement one of the response actions must be reported as a deviation. This reflects updated permit language being used by the Agency.

#### **9.5 Health, Welfare and Nuisance Standards (Conditions 1.9, 1.10 and 1.11)**

PSCAA Regulation I, Section 9.11 and WAC 173-400-040(5) are similar requirements that address emissions that may be environmentally detrimental or cause a nuisance. Although the permit lists all these requirements together, Kenworth must comply with each. Once EPA deletes the 9/20/93 version of WAC 173-400-040(5) from the PSCAA SIP, only Reg. I, Section 9.11 will apply since Regulation I, Section 9.11 is a corresponding local rule in accordance with WAC 173-400-020(1). The monitoring method is based on responding to complaints and quarterly general inspections of the facility to identify any emissions that are likely to be injurious to human health, plant or animal life, or property, or that unreasonably interfere with enjoyment of life and property. Receiving complaints does not necessarily mean Kenworth is in violation of this requirement, but Kenworth has a responsibility to investigate complaints and take corrective action if necessary. PSCAA has not noted nor has PSCAA received complaints about Kenworth causing emissions that are likely to be injurious to health, plant or animal life, or property or that unreasonably interferes with enjoyment of life and property. Kenworth does not handle or process material that is likely to cause fugitive dust emissions.

The buildings at Kenworth are totally enclosed and all the roadways and parking lots are paved including a paved lot that is used for storage of plant equipment and truck trailers. PSCAA has never noted any fugitive dust emissions from the plant grounds. PSCAA has not received a verified complaint on the facility since 1996. Therefore, PSCAA has determined that the quarterly facility-wide inspections required in Condition 1.17 of the permit are sufficient to monitor for changes that would cause a fugitive emission or unexpected buildup of dust on the roadways and parking lots.

**Changes in the AOP Renewal:** The requirements in WAC 173-400-040(3) specifying Kenworth shall not deposit particulate matter beyond the property boundary in sufficient quantity to interfere unreasonably with the use and enjoyment of property has been included as a separate requirement. The monitoring method and frequency has not changed, but the language has been updated to reflect the updated format. For facility-wide inspections, Kenworth is required to examine/inspect the same elements as is currently required. For both the facility-wide inspections and complaint response, recordkeeping requirements have been included in the compliance methods and language has been added to make it clear failure to implement one of the response actions must be reported as a deviation. This reflects updated permit language being used by the Agency.

#### **9.6 SO<sub>2</sub> Standard (Condition 1.12)**

Both PSCAA Regulation I, Section 9.07 and WAC 173-400-040(6) are equivalent requirements (SO<sub>2</sub> emissions not to exceed 1000 ppmv), except for the second paragraph of the WAC, which is not in PSCAA regulation. That paragraph, which is not federally enforceable, allows for exceptions to this requirement if the source can demonstrate that there is no feasible method of reducing the SO<sub>2</sub> concentrations to 1000 ppm. Since PSCAA rules do not allow the exception, the second paragraph does not apply to Kenworth. Once EPA deletes the 9/20/93 version of the WAC from the PSCAA SIP, only Regulation I, Section 9.07 will apply since Regulation I, Section 9.07 is a corresponding local rule in accordance with WAC 173-400-020(1).



Kenworth burns primarily pipeline grade natural gas, and uses diesel only in their emergency generator and emergency fire pump. Based on the amount of sulfur in natural gas fuel, it has been shown that combustion units that are fired on natural gas cannot exceed the 1,000 ppm SO<sub>2</sub> limits. Diesel fuel used in the emergency engines would also not have high enough sulfur content to exceed these limits. Therefore, no additional monitoring is not required.

### **9.7 Hydrochloric Acid Standard (Condition 1.13)**

PSCAA Regulation I, Section 9.10 specifies that hydrochloric acid emissions shall not exceed 100 ppm (dry) corrected to 7% O<sub>2</sub> for combustion sources, including both internal and external combustion units. Since Kenworth burns only pipeline-grade natural gas and similar “clean” gaseous fuels allowed and diesel fuel, and the solvents used in the truck coatings and cleaning solvents contain no chlorine, the facility is incapable of violating the standard while complying with the other requirements in the permit. Therefore, the permit does not contain additional monitoring requirements.

### **9.8 Maintain Equipment in Good Working Order (Condition 1.14)**

PSCAA Regulation I, Section 9.20(b) requires Kenworth to maintain equipment or control equipment not subject to Section 9.20(a) in good working order. (Section 9.20(a) applies to sources that received a Notice of Construction Order of Approval under PSCAA Regulation I, Article 6. Since it applies to specific emission units, Section 9.20(a) requirements are included in Section 2 of the permit.) In the existing permit, monitoring was based on the minimum monitoring criteria for maintaining equipment in good working order. This monitoring method has been revised to refer to facility-wide monitoring and the facility Operation & Maintenance Plan requirements. The facility-wide inspections provide monitoring of the general effectiveness of Kenworth’s Operation and Maintenance (O&M Plan). This general monitoring and compliance with the O&M Plan provides sufficient monitoring criteria to certify that the equipment has been maintained in good working order. However, PSCAA reserves the right to evaluate the maintenance of each piece of equipment to determine if it has been maintained in good working order.

### **9.9 O&M Plan (Condition 1.15)**

In accordance with PSCAA Regulation I, Section 7.09(b), Kenworth is required to develop and implement an O&M Plan to assure continuous compliance with PSCAA Regulations I, II, and III. The requirement specifies that the Plan shall reflect good industrial practice, but does not define how to determine good industrial practice. To clarify the requirement, PSCAA added that, in most instances, following the manufacturer’s operations manual or equipment operational schedule, minimizing emissions until the repairs can be completed and taking measures to prevent recurrence of the problem may be considered good industrial practice. This language is consistent with the Ecology requirement in WAC 173-400-101(4). PSCAA also added language establishing criteria for determining if good industrial practice is being used. These include, but are not limited to, monitoring results, opacity observations, review of operations and maintenance procedures, and inspections of the emission unit or equipment. PSCAA added this wording in response to Washington State court decision, Longview Fibre Co. v. DOE, 89 Wn. App. 627 (1998), which held that similar wording was not vague and gave sufficient notice of the prohibited conduct.

PSCAA Regulation I, Section 7.09(b) also requires Kenworth to promptly correct any defective equipment. However, the underlying requirement in most instances does not define “promptly”; hence for significant emission units and applicable requirements that Kenworth has a

reasonable possibility of violating or that a violation would cause an air quality problem, PSCAA added clarification that “promptly” usually means within 24 hours. For many insignificant emission units and equipment not listed in the permit, “promptly” cannot be defined because the emission sources and suitable pollution control techniques vary widely, depending on the contaminant sources and the pollution control technology employed. However, the permit identifies a means by which to identify if Kenworth is following good industrial practice.

As described in Condition 5.5, Kenworth must report to PSCAA any instances where it failed to promptly repair any defective equipment. In addition, Kenworth has the right to claim certain problems were a result of an emergency (Condition 5.13) or unavoidable (Conditions 5.14 – 5.18).

Following these requirements demonstrates that Kenworth has properly implemented the O&M Plan, but it does not prohibit PSCAA or EPA from taking any necessary enforcement action to address violations of the underlying applicable requirements after proper investigation.

## **10 Facility-wide VOC and HAP Emission Limits**

### **10.1 Plant-wide VOC Emission Cap (Condition 1.22)**

PSCAA Order No. 11587, Condition 1 imposes a VOC emission cap of 383 tons during any consecutive 12-month period. The compliance methods are listed in Conditions 1.26 through 1.28 and are consistent with Order of Approval No. 11587, Conditions 4, 6 and 11. It includes tracking usage and VOC content of all VOC-containing material, calculating VOC emissions and notifying the Agency if emissions exceed 345 tons during the previous consecutive 12-month period. Kenworth is allowed to utilize the definition of VOC in accordance with EPA requirements, when calculating VOC content of coatings as specified in Requirement No. 1.24, consistent with Condition 3 of Order 11587.

The calculation used for determining the VOC emissions is shown below. Using this calculation adequately demonstrates the facility is below VOC limit. However, if Kenworth notifies the Agency that they have exceeded 345 tons during the previous consecutive 12-month period, the Agency may require additional refinement of this calculation to verify it adequately characterizes emissions.

$$\text{lbs VOC emissions} = \sum (\text{lbs product purchased} * \text{wt\% VOC}_{\text{product}}) - (\text{lbs VOC in Waste Liquid Paint}) - (\text{lbs VOC in Spent Gun Cleaner Solvent})$$

$$\begin{aligned} \text{lbs VOC in Waste Liquid Paint} \\ = (\text{lbs Waste Liquid Paint Shipped} * \text{wt\% VOC}_{\text{WLP}}) + (\text{lbs Waste Liquid Paint in Spent Gun Cleaner Solvent Shipped}) \end{aligned}$$

$$\text{lbs Waste Liquid Paint in Spent Gun Cleaner Solvent Shipped} = (\text{lbs Spent Gun Cleaner Solvent Shipped} * \text{wt\% Paint in SGCS} * \text{wt\% VOC}_{\text{WLP}})$$

$$\text{lbs VOC in Spent Gun Cleaner Solvent} = [(\text{lbs Spent Gun Cleaner Solvent Shipped} * (1 - \text{wt\% Paint in SGCS}) * \text{wt\% VOC}_{\text{GCS}})]$$

Where

$$\text{wt\% VOC}_{\text{WLP}} = 12\text{month Avg. of wt\% VOC}_{\text{paint}}$$

And

$$\text{wt\% Paint in SGCS} = \frac{(\rho_{\text{SGCS}} - \rho_{\text{GCS}})}{(\rho_{\text{WLP}} - \rho_{\text{GCS}})}$$

WLP = Waste Liquid Paint

SGCS = Spent Gun Cleaner Solvent

GCS = Gun Cleaner Solvent

## 10.2 Plant-wide HAP Emissions Cap (Condition 1.23)

PSCAA Order No. 11587, Condition 2 imposes a plant-wide hazardous air pollution (HAP) cap of 9.8 tons of any single HAP (such as toluene) and 24.5 tons of any combination of HAP during any consecutive 12-month period. The compliance method for this condition is contained in Conditions 1.29 – 1.31 of the AOP and consistent with Conditions 5, 6, and 11 of Order No 11587. It includes tracking usage and HAP content of all HAP-containing material, calculating HAP emissions and notifying the Agency if emissions exceed 9 tons during the previous consecutive 12-month period for a single HAP or 22.5 tons during the previous consecutive 12-month period for total HAP.

## 10.3 Plant-wide Natural Gas Fuel Burning Limit (Condition 1.25)

PSCAA Order No. 11587, Condition 8 imposes a plant-wide limit on consumption of natural gas. The compliance method for this condition is contained in Condition 1.32 of the AOP and consistent with Condition 9 of Order No 11587. It includes monitoring and recording usage of natural gas on a monthly basis.

## 11 Emission Unit Specific Applicable Requirements

Section 2 contains requirements that apply to emission units at the facility. A summary of the nine emission units is included in the front of Section 2 for information only. The description of the emission unit is also included above the requirements table for each emission unit. Emission units may be relocated throughout the site without modifying the operating permit. However, new source review requirements may apply if equipment is modified or reconstructed, or for the replacement or substantial alteration of control equipment (see Section 4 of this permit). The description of each emission unit has not been repeated in this Statement of Basis since it is included in the operating permit itself.

### **11.1 Requirements that Apply to All Surface Coating Operations (Section 2.A)**

The general requirements that apply to indoor spray coating operations in Regulation I, Section 9.16 are included in Conditions 2.1 and 2.2. These include a list of activities that are exempt from the requirements and the general requirement which specifies it is unlawful to allow spray-coating inside a structure, or spray-coating of any motor vehicles or components, unless the spray-coating is conducted inside an enclosed spray area employing paint arresters or water-wash curtains to control overspray. All emissions must be vented through an unobstructed vertical exhaust vent. Kenworth is required to verify compliance with this requirement during their quarterly facility-wide inspections.

The VOC content limits in Order 11587 and PSCAA Regulation II, Section 3.04(a) are included in Conditions 2.3 and 2.4 and require that parts or components of vehicles (cars and trucks) be coated with compliant coatings. The applicable compliant coatings are identified in the regulation. Regulation II, Section 3.04(b) requirements for specialty coating are included in Condition 2.5. The compliance method to demonstrate compliance with VOC content limits is the Chemical Procurement Information Sheet System and Specialty Coating Tracking contained in Condition Nos. 2.7 and 2.8. These records are maintained for facility-wide usage and records are centrally located instead of being kept at each emission unit.

Note that activities not subject to new source review permitting requirements would not be subject to VOC content limits determined to be LAER. The language in Order 11587 was updated to clarify VOC limits in the Order do not apply to coatings applied with hand-held aerosol spray cans with one quart or less capacity or with air brush spray equipment with 0.5 to 2.0 CFM airflow and 2 fluid ounce or less cup capacity. However, this exclusion does not apply to VOC content limit in Regulation II, Section 3.04.

The requirements that apply to surface coating are listed in two sections. The first is facility-wide surface coating operations which apply to all emission units where surface coating and associated operations take place. Associated operations include, but are not limited to, prep work, solvent cleaning, coating and thinning operations. The second section includes limits that apply at the emission unit.

### **11.2 Requirements that Apply to Specific Surface Coating Operations (Section 2.B)**

The operating permit separates the spray coating emission units into seven (7) individual emission units that correspond with work areas/processes at the Kenworth facility. Some requirements apply to activities in all 7 emission units, but are repeated in the requirements table at the request of Kenworth. The intent is to improve the ability to effectively implement the operating permit requirements by clearly listing which specific requirements apply to each emission unit. The requirements that apply to all emission units are summarized below and listed as applicable requirements in Tables 4 through 10 of the operating permit:

- When Kenworth performs VOC equipment clean-up, it must collect all clean-up solvent in closed containers in accordance with PSCAA Regulation II, Section 3.04(e).
- Pursuant to PSCAA Regulation II, Section 3.04(f), any VOC-containing materials such as clean-up rags shall be disposed of or stored in closed containers.
- This requirement to maintain all equipment in good working order in accordance with PSCAA Regulation I, Section 9.20.

Compliance methods for the requirements in Tables 4 through 10 of the operating permit are included below Table 10 in Conditions 2.36 through 2.38 and include spray coating inspections, work practice monitoring and spray coating training.

#### **11.2.1 Emission Unit No. 1: Assembly Operations: Highway And Off-Highway Trucks**

In addition to the general requirements listed in Section 11.2, PSCAA Regulation II, Section 3.04(d) is included in Condition 2.9 and requires Kenworth to employ HVLP or other high transfer efficiency spray methods listed in the rule. In this area, HVLP or airless guns can be used to apply an air-dried rubberized material to truck chassis. The material is low in VOC content (<3.5lbs/gal).

#### **11.2.2 Emission Unit No. 2: Materials Work**

This emission unit consists of activities associated with truck component fabrication but does not include operations that would require use of high transfer efficiency spray application. The general requirements in Section 11.2 apply.

This emission unit includes welding equipment and welding dust collectors that recirculate filtered air back into the factory. There is also one welding fume collector located in the Off-Highway area and one in the Maintenance area that are vented to the outside. The general particulate matter standard that applies to this activity is included in Section 2.15. The compliance method for dust collector inspections is included in Condition No. 2.39.

#### **11.2.3 Emission Unit No. 3: Surface Preparation: Truck Components**

This emission unit consists of activities associated with preparing truck components for coating operations but does not include operations that would require use of high transfer efficiency spray application. The general requirements listed in Section 11.2 apply.

Seven prep/sanding booths and the dust collector must be maintained in good working order per PSCAA Regulation I, Section 9.20 (Condition 2.20). In addition, the general particulate matter standard that applies to this emission unit is included in Section 2.19. The compliance method for dust collector inspections is included in Condition No. 2.39.

#### **11.2.4 Emission Unit No. 4: Coating Operations: Truck Components & Chassis**

This emission unit includes cleaning and surface coating activities of truck components. In addition to the general requirements listed in Section 11.2, PSCAA Regulation II, Section 3.04(d) is included in Condition 2.21 and requires Kenworth to employ HVLP or other high transfer efficiency spray methods listed in the rule.

#### **11.2.5 Emission Unit No. 5: Coating Operations: Truck Components**

This emission unit includes cleaning and surface coating activities of truck components. In addition to the general requirements listed in Section 11.2, PSCAA Regulation II, Section 3.04(d) is included in Condition 2.25 and requires Kenworth to employ HVLP or other high transfer efficiency spray methods listed in the rule.

#### **11.2.6 Emission Unit No. 6: Coating Operations: Highway and Off-Highway Trucks and Touch-Up**

This emission unit includes cleaning and surface coating activities of highway and off-highway completed trucks and truck components. In addition to the general requirements listed in

Section 11.2, PSCAA Regulation II, Section 3.04(d) is included in Condition 2.29 and requires Kenworth to employ HVLP or other high transfer efficiency spray methods listed in the rule.

#### **11.2.7 Emission Unit No. 7: Coating Mix/Solvent System**

This emission unit includes the storage, thinning, tinting, and packaging of coating materials for application on truck components, completed trucks and other maintenance coating needs, as well as the solvent and activator storage and distribution systems. The general requirements in Section 11.2 apply to this emission unit.

#### **11.3 Emission Unit No. 8: Gas Fueled Equipment**

Emission Unit No. 8 consists of all gas-fired equipment, including all air, water, steam and other medium heaters that are fueled by natural gas and are larger than applicable size thresholds making them significant sources. This emission unit includes makeup heaters (MAUs) and air supply houses (ASHs) larger than 5 MMBtu/hr. All MAUs and ASHs are fired on pipeline quality natural gas only. None of the non-emergency equipment can burn diesel fuel and would need PSCAA approval to do so.

The general facility-wide opacity monitoring requirement is listed in Condition 1.16. The monitoring method in Condition 2.43 requires that Kenworth monitor for opacity quarterly for MAUs and ASHs greater than 5 MMBtu/hr heat input.

#### **11.4 Emission Unit No. 9: Emergency Engines**

This emission unit includes equipment that is necessary for emergency situations and subject to the applicable requirements in 40 CFR Part 63, Subpart ZZZZ. This emission unit includes two existing emergency engines. Currently, diesel is the primary fuel; however, other alternative fuels may be used. For these units, Kenworth must comply with the requirements in Table 2d of the NESHAP as contained in Condition 2.47. These requirements are triggered based on hours of operation, or annually, whatever comes first. Because these are emergency engines, it is likely that actions will be triggered on an annual basis (annual means calendar year). Recordkeeping and reporting requirements are included in Conditions 2.55 – 2.59. Since these are emergency engines, Kenworth must install and operate a non-resettable hour meter as specified in Condition 2.50.

### **12 Standard Terms and Conditions**

Some of the requirements that are more general in nature are included in Section 3, Standard Terms and Conditions. This provided a mechanism for describing requirements that are more general in nature. This section also contains the standard terms and conditions specifically listed in WAC 173-401-620.

### **13 General Permitting Requirements**

Permit actions pertaining to the operating permit and new source review are included in Section 4, General Permitting Requirements.

### **14 General Compliance Requirements**

General compliance requirements are included in Section 5 of the permit. These include certification and reporting requirements, requirements associated with inspections and investigations, and compliance testing requirements. Actions required for an affirmative defense for emergencies or excess emissions are also included in this section. Finally, this section

provides a table summarizing the effective date of the regulations in the permit at the time of permit issuance. Regulations that are approved into the Washington State Implementation Plan (SIP) are federally enforceable. In some cases, there are two versions of the regulation because the newer version has not been adopted into the SIP. In this case, the older version of the regulation would be federally enforceable and the current rule would only be enforceable by the Agency (or State).

## **15 General Applicable Requirements**

Some of the general applicable requirements are included in Section 6 of the permit. This includes record retention, asbestos requirements, open burning requirements, stratospheric ozone and climate protection requirements, chemical accident prevention provisions in 40 CFR Part 68, concealment and masking, tampering, RACT requirements, annual emission reporting requirements, greenhouse gas reporting requirements and non-road engine notification requirements.

## **16 Obsolete Requirements**

A standard PSCAA Notice of Construction Approval condition, NOC Condition No. 1, requires that the equipment, device or process be installed according to plans and specifications submitted to PSCAA. Once the equipment is installed, PSCAA requires certification by the applicant that the installation was as approved; this is usually done with a Notice of Completion. Normally within six months to a year after receiving a Notice of Completion, a PSCAA inspector verifies by inspection that the equipment was installed as specified and in accordance with the Approval Order. While the Notice of Completion is a one-time requirement that Kenworth Renton has complied with, Kenworth Renton cannot change the approved equipment in such a manner that requires an NOC without first obtaining an NOC approval. In most cases, once Kenworth Renton has filed the Notice of Completion and a PSCAA inspector has verified that the equipment was installed according to the Approval Order, PSCAA considers NOC Condition No. 1 an obsolete condition. However, in some cases in the permit PSCAA has identified a need to specify that the equipment cannot be altered in such a manner that requires an NOC Approval.

The following Orders of Approval are also obsolete:

Order No.	Approval Date	Project Description	Why obsolete
4212	3/2/1992	One 20 truck/day painting and assembly plant with four process areas (cab painting, chassis painting, touch-up painting, and small parts painting), a pyrolytic oven, a still, storage tanks, and fuel tank welding operations (See attached).	Cancelled and superseded by Order 6074 issued 8/16/95
4895	7/14/1993	Thirteen Makeup Air Units of 2.28, 1.647, 1.81, 1.81, 1.84, 1.615, 1.453, 1.453, 1.211, 1.211, 1.733, 1.255 and 1.255 MMBtu/hr heat input rating, respectively. One Cab Prime Air Supply House (ASH) of 5.9 MMBtu/hr, Touch-up #1 ASH of 9.2 MMBtu/hr, Touch-up #2 ASH of 7.9 MMBtu/hr, Basecoat Paint ASH of 18.2 MMBtu/hr, and a Prep/Clean ASH of 10.2 MMBtu/hr. One Cab Washer at 6.6 MMBtu/hr, a Small Parts Washer at 3.0 MMBtu/hr, a Small Parts Drying Oven at 1.5 MMBtu/hr, one Cab Manual ASH of 6.8 MMBtu/hr, and one Chassis Paint ASH of 11.6 MMBtu/hr.	Cancelled and superseded by Order 6074 issued 8/16/95
4972	6/29/1993	Two Prep Booths at 32,000 cfm and 33,400 cfm with dry filters to capture sanding dust, and one Prep & Seal Wash Booth at 35,788 cfm with a vertical exhaust stack.	Cancelled and superseded by Order 6074 issued 8/16/95
5475	11/1/1994	Modification of former Notices of Construction to increase VOC emissions from Chassis Priming by 5.01 TPY, from New Truck Models and Additional Component Painting by 32.09 TPY, from Base Coat/Clear Coat Finish application by 59.35 TPY, and from further additions of cleaners, adhesives and sealants by 2.50 TPY, all for a total of 98.95 tons per year increase of VOC emissions for a new plant-wide VOC emissions total of 183.95 tons per year.	Cancelled and superseded by Order 6074 issued 8/16/95
6074	8/16/95	Consolidation of former Orders of Approval to summarize restrictions and conditions associated with the operation of a Truck Manufacturing facility.	Cancelled and superseded by Order 6074 issued 8/8/03
6654	4/10/97	Regulatory Order For Alternate Means Of Compliance With PSAPCA Regulation II Section 3.04(e).	Cancelled and superseded by Order 8344 issued 7/24/03
6977	10/21/1997	Increase VOC Emissions Cap from 184 tons per year to 383 tons per year. [Superseded - See NOC 6074, 8/8/03]	Cancelled and superseded by Order 6074 issued 8/8/03
8344	7/24/2003	Use of acetone and other negligibly reactive compounds as substitutes for Hazardous Air Pollutant (HAP) and Volatile Organic Compound (VOC) classified solvents in topcoats, primers, gun wash thinner, and other products.	Cancelled and superseded by Order 11587
8884	7/24/2003	Synthetic Minor to limit facility-wide emissions of total HAP, and any single HAP.	Cancelled and superseded by Order 11587
6074	8/8/2003	Use of Acetone and other negligibly reactive compounds as substitutes for Hazardous Air Pollutant (HAP)- and Volatile Organic Compound (VOC)-classified solvents in topcoats, primers, gun wash thinner and other products.	Cancelled and superseded by Order 11587



## 17 Inapplicable Requirements

The requirements identified in Section 8 of the air operating permit do not apply to the facility, or to the specific emissions units identified in the permit. The permit shield applies to all requirements so identified.

Kenworth requested that additional requirements be listed as inapplicable that were not included in the final permit for the following reasons:

Regulation	Description	Reason for not including as Inapplicable Requirement
40 CFR Part 63 Subpart A	General Provisions for 40 CFR Part 63	Kenworth is subject to these general provisions so these are not listed in this section.
RCW 70.94.531 (State Only Requirement)	Transportation demand management plan requirement	This is not considered within the scope of the permit.
WAC 173-400-040(3)(b)	If emission unit identified to be a significant contributor to nonattainment status of area, reasonable and available control methods must be used. This rule does not apply because no emission units at Kenworth have been designated a significant contributor of pollutant to a nonattainment area.	Not included since area is not in nonattainment.
WAC 173-400-040(8)(b)	If emission unit identified to be a significant contributor to nonattainment status of area, reasonable and available control methods must be used. This rule does not apply because no emission units at Kenworth have been designated a significant contributor to a PM-10 nonattainment area.	Not included since area is not in nonattainment.
WAC 173-470	Ambient Air Quality Standards (AAQS) for PM. WAC 173-470, 474, 475, 480 and 481 do not apply because Ambient Air Quality Standards do not apply to stationary sources.	AAQS broadly apply to the area. The Agency no longer identifies these as inapplicable requirements in these permits.
WAC 173-474	Ambient Air Quality Standards (AAQS) for SO <sub>2</sub> . WAC 173-470, 474, 475, 480 and 481 do not apply because Ambient Air Quality Standards do not apply to stationary sources.	AAQS broadly apply to the area. The Agency no longer identifies these as inapplicable requirements in these permits.

Regulation	Description	Reason for not including as Inapplicable Requirement
WAC 173-475	Ambient Air Quality Standards (AAQS) for CO, Ozone, and NOx. WAC 173-470, 474, 475, 480 and 481 do not apply because Ambient Air Quality Standards do not apply to stationary sources.	AAQS broadly apply to the area. The Agency no longer identifies these as inapplicable requirements in these permits.
WAC 173-480	Ambient Air Quality Standards (AAQS) and emission limits for radionuclides. WAC 173-470, 474, 475, 480 and 481 do not apply because Ambient Air Quality Standards do not apply to stationary sources.	AAQS broadly apply to the area. The Agency no longer identifies these as inapplicable requirements in these permits.
WAC 173-481	Ambient Air Quality Standards (AAQS) and emission standards for fluorides. WAC 173-470, 474, 475, 480 and 481 do not apply because Ambient Air Quality Standards do not apply to stationary sources.	AAQS broadly apply to the area. The Agency no longer identifies these as inapplicable requirements in these permits.

### 18 Insignificant Emission Units and Activities

Section 9 of the permit addresses insignificant emission units and activities. In accordance with WAC 173-401-530(1), determination of an emission unit or activity as insignificant does not exempt the unit or activity from any applicable requirement.

An emission unit or activity is insignificant based on one or more of the criteria identified in WAC 173-401-530. This includes categorical exemption, exemption based on emissions being below emission thresholds in WAC 173-401-530(4), or exemption based on size or production rate. Activities that generate only fugitive emissions which are subject to no applicable requirement other than generally applicable requirements can also be classified as insignificant. Categorically exemption units or activities do not need to be listed in the permit application, but all others do.

Kenworth identified several items of equipment that qualify as insignificant due to capacity below the specified levels in WAC 173-401-533. These items of equipment are listed as insignificant emission units in Section 9 of the permit. Monitoring requirements for insignificant emission units are detailed in Condition 1.19 of the permit. In essence, Kenworth will be required to use good industrial practices to maintain insignificant emission units, and to promptly repair defective equipment or shut down the unit until defective equipment can be repaired. Kenworth won't have to keep records of maintenance of insignificant emission units except when such equipment is inspected and a problem requiring prompt repair is discovered during a quarterly plant-wide inspection.

### 19 Public Comments and Responses during renewal process

In accordance with WAC 173-401-800, the Agency provided public notice for issuance of a draft permit renewal. The draft permit renewal went out for public comment on September 18, 2018 with a request to submit any comments by October 25, 2018. Public notice included publication

in Ecology's Permit Register. The Agency also provided notice to affected states in accordance with WAC 173-401-820.

The Agency received comments from David Bryan, Kenworth Truck Company, on October 25, 2018. A majority of the comments were related to typos and formatting changes in the draft permit. These changes were accepted by the Agency. Other comments included:

- A request to update the language in the draft air operating permit to reflect the changes in the updated Regulatory Order. The suggested revisions have been made.
- A request to remove of a sentence in Condition 4.25 of the draft permit regarding notification requirements in PSCAA Regulation I, Section 6.03(b). This sentence is redundant, so the Agency has removed in the proposed permit.

The Agency also requested comments on draft Regulatory Order No. 11587. David Bryan requested that the equipment table be updated so that the descriptions of the equipment in the supporting worksheet are the same as those in the Regulatory Order. This change has been made.

The Agency updated the effective dates for the State Only versions of WAC 173-400-035, WAC 173-400-081, WAC 173-400-107, WAC 173-400-108, WAC 173-400-109 and WAC 173-400-171 to reflect the most current versions of these rules. WAC 173-400-035 addresses non-road engines and the language in the proposed permit remains unchanged from the draft version of the permit. WAC 173-400-107 addresses excess emissions and the language in the most current version of this rule specifies this section of the rule is only effective until the effective date of EPA's removal of the 9/20/93 version of WAC 173-400-107 from the SIP. The language in the proposed permit reflects the 9/20/93 version of the rule and remains unchanged from the draft permit. Once EPA takes action on the SIP, the permit will be modified to reflect the updated language in WAC 173-400-108 and WAC 173-400-109, and the removal of WAC 173-400-107.

The Agency also inadvertently forgot to include two attachments in the draft operating permit. PSCAA Method 5 for particulate and Ecology Method 9A for opacity are included as attachments since these test methods are referenced compliance methods in the permit. EPA test methods are readily available on EPA's website so are not included as attachments.

## **20 EPA Comment Period**

In accordance with WAC 173-401-810, the Agency provided a copy of the proposed permit to EPA Region 10 on November 28, 2018. No objection to issuance of the permit renewal was received from EPA Region 10 within forty-five days of receipt of the proposed permit and supporting information.