

# Public Notice

## DEQ Requests Comments on Forest River Inc. Plant 64 Proposed Air Quality Permit

The Oregon Department of Environmental Quality invites the public to submit written comments on the conditions of Forest River Inc.'s Plant 64 proposed renewal air quality permit, known officially as a Simple Air Contaminant Discharge Permit.

### Summary

The proposed permit is a renewal of the existing Simple Air Contaminant Discharge Permit for a facility in Harrisburg that is scheduled to expire on Nov. 1, 2020. The company submitted a timely renewal application on April 29, 2020. Therefore, the current permit remains in effect until the renewal is issued. Upon issuance, this permit will be effective for five years.

### How do I participate?

To submit your comments for the public record, send them by mail, fax or email:

Suzy Luttrell,  
DEQ Permit Coordinator  
4026 Fairview Industrial Drive SE  
Salem, OR 97302  
**Fax:** 503-378-4196  
**Email:** [luttrell.suzy@deq.state.or.us](mailto:luttrell.suzy@deq.state.or.us)

Written comments are due by 5 p.m. Fri., Nov. 13, 2020.

### About the facility

The facility in Harrisburg, manufactures towable recreational vehicle trailers. The RV trailer manufacturing process includes woodworking, welding, and trailer assembly. Process emissions are vented uncontrolled to the atmosphere with the exception of a medium efficiency cyclone and dust collectors located in the woodworking shop used to control particulate emissions.

### What air pollutants would the permit regulate?

This permit regulates emissions of the pollutants listed in the table at the end of this document.

### How does DEQ determine permit requirements?

DEQ evaluates types and amounts of pollutants and the facility's location, and determines permit requirements according to state and federal regulations.

### How does DEQ monitor compliance with the permit requirements?

This permit would require the facility to monitor pollutants using federally approved monitoring practices and standards.

The facility is required to keep records of plant production and material usage including volatile organic compounds and hazardous air pollutant containing compounds.

Formulas to calculate emissions are contained in the permit. The permittee is required to calculate facility wide emissions monthly and submit an emissions report annually. Onsite inspections will be conducted to assure compliance with emission limitations.

### What happens after the public comment period ends?

DEQ will consider and provide response to all comments received that are pertinent to the proposed permit after the close of the comment period. DEQ may modify the proposed permit based on the comments received, but DEQ can only modify conditions of the permit in accordance with the rules and statutes under the authority given to the DEQ. If the facility meets all legal requirements, DEQ will issue the facility's air quality permit.

### Where can I get more information?

Find out more and view the application at <https://www.oregon.gov/deq/Get-Involved/Pages/Public-Notices.aspx> or contact Peter Susi, DEQ permit writer.

**Phone:** 503-378-5408

**Fax:** 503-378-4196

**Email:** [susi.peter@deq.state.or.us](mailto:susi.peter@deq.state.or.us)

View the application and related documents in person at the DEQ office in Salem or at the Harrisburg Public Library, Harrisburg Oregon. For a review appointment, call Suzy Luttrell at 503-378-5305.

### Alternative Formats

DEQ can provide documents in an alternate format or in a language other than English upon request. Call DEQ at 800-452-4011 or email [deqinfo@deq.state.or.us](mailto:deqinfo@deq.state.or.us)



State of Oregon  
Department of  
Environmental  
Quality

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[www.oregon.gov/DEQ](http://www.oregon.gov/DEQ)

*DEQ is a leader in  
restoring, maintaining and  
enhancing the quality of  
Oregon's air, land and  
water.*

Notice issued: 10/14/2020  
By: Suzy Luttrell  
Permit number: 22-8043-  
SI-01

## Emissions limits

### Regulated Pollutants:

Forest River Inc. Plant 64 in Harrisburg does not have the potential to be a major source of criteria air pollutants. The facility has accepted a generic plant site emission level, or PSEL, an enforceable limit, below major source levels. The facility is designated a true minor source.

Table 1 below presents maximum **allowable** emissions of regulated criteria pollutants for the facility. The current emission limit reflects maximum emissions the facility can emit under the existing permit. The proposed emission limit reflects maximum emissions the facility would be able to emit under the proposed permit. Typically, a facility's actual emissions are less than maximum limits established in a permit; however, actual emissions can increase up to the permitted limit.

**Table 1**

<b>Pollutant</b>	<b>Current Limit (tons/ per/year)</b>	<b>Proposed Limit (tons per/year)</b>
Particulate matter	24	24
Small particulate matter	14	14
Fine particulate matter	9	9
Nitrogen oxides	39	39
Sulfur dioxide	39	39
Carbon monoxide	99	99
Volatile organic compounds	39	39
Greenhouse gases	74,000	74,000

For more information about criteria pollutants, go to <https://www.epa.gov/criteria-air-pollutants>

### Hazardous air pollutants:

Forest River Inc. Plant 64 does not have the potential to be a major source of hazardous air pollutants. The facility has accepted a generic PSEL, an enforceable limit, of 9 tons per year of any single hazardous air pollutant and 24 tons per year of combined hazardous air pollutants.

**Table 2**

<b>Hazardous Air Pollutants</b>	<b>Projected Emissions (tons per/yr)</b>
Ethylbenzene	0..01
Methyl Isobutyl Ketone	0
Cobalt Salts	0
Methanol	0.02
Styrene	0
Xylene	0.18
Cumene	0
Hexane	1.40
MDT	0.39
Toluene	0.53
Manganese	0.05
Total	2.58

For more information about hazardous air pollutants, go to:  
<https://www.epa.gov/haps/health-effects-notebook-hazardous-air-pollutants>



**OREGON DEPARTMENT OF ENVIRONMENTAL QUALITY**

**SIMPLE**

**AIR CONTAMINANT DISCHARGE PERMIT**

Western Region  
4026 Fairview Industrial Drive SE  
Salem, OR 97302

This permit is being issued in accordance with the provisions of ORS 468A.040.

**ISSUED TO:**

Forest River, Inc  
PO Box 3030  
Elkhart, IN 46515-3030

**INFORMATION RELIED UPON:**

Application No.: 32275  
Date Received: 04/29/2020

**PLANT SITE LOCATION:**

Forest River Inc. Plant 64  
30725 Diamond Hill Road  
Harrisburg, Oregon 97446

**LAND USE COMPATIBILITY FINDING:**

Approving Authority: Linn County  
Approval Date: 03/01/1995

**ISSUED BY THE DEPARTMENT OF ENVIRONMENTAL QUALITY**

\_\_\_\_\_  
Claudia Davis, Western Region Air Quality Manager

\_\_\_\_\_  
Date

Source(s) Permitted to Discharge Air Contaminants (OAR 340-216-8010):

<b>Table 1 Code</b>	<b>Source Description</b>	<b>SIC/NAICS</b>
Part B, 47	Manufactured home, mobile home and recreational vehicle manufacturing.	3792 / 336214

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## 1.0 DEVICE, PROCESS AND POLLUTION CONTROL DEVICE (PCD) IDENTIFICATION

The devices, processes, and pollution control devices regulated by this permit are the following:

Devices and Processes Description	Device ID	Pollution Control Device Description	PCD ID
Natural Gas Heaters	NG Heaters	None	N/A
Woodworking Shop	WWS-1	Medium Efficiency Cyclone	C-1
Welding Shop	WS-1	None	N/A
RV Assembly Line	RVT-AL	None	N/A
Fire Pump Engine	FP-1	None	N/A
Fire Pump Engine	FP-2	None	N/A
Gasoline Dispensing Storage Tank	GDF-1	None	N/A

## 2.0 GENERAL EMISSION STANDARDS AND LIMITS

### 2.1. Visible Emissions

The permittee must comply with the following visible emission limits from air contaminant sources other than fugitive emission sources, as applicable. Opacity is measured as a six-minute block average using EPA Method 9 or an alternative monitoring method approved by DEQ that is equivalent to EPA Method 9.

- a. Emissions from any air contaminant source must not equal or exceed 20% opacity; [OAR 340-208-0110(3) (b) and (4)]
- b. Any devices or processes installed, constructed, or modified on or after April 16, 2015 must not equal or exceed 20% opacity. [OAR 340-208-0110(4) and (7)]

### 2.2. Fugitive Emissions

- a. The permittee must take reasonable precautions to prevent fugitive dust emissions from leaving the property of a source. Reasonable precautions include, but are not limited to: [OAR 340-208-0210]

- i. Using, where possible, water or chemicals for control of dust in the demolition of existing buildings or structures, construction operations, the grading of roads or the clearing of land;
  - ii. Applying water or other suitable chemicals on unpaved roads, materials stockpiles, and other surfaces which can create airborne dusts;
  - iii. Enclosing (full or partial) materials stockpiles in cases where application of water or other suitable chemicals are not sufficient to prevent particulate matter, including dust, from becoming airborne;
  - iv. Installing and using hoods, fans, and fabric filters to enclose and vent the handling of dusty materials;
  - v. Installing adequate containment during sandblasting or other similar operations;
  - vi. Covering, at all times when in motion, open bodied trucks transporting materials likely to become airborne; and
  - vii. Promptly removing earth or other material that does or may become airborne from paved streets.
- b. If requested by DEQ, the permittee must:
- i. Prepare and submit a fugitive emission control plan within 60 days of the request;
  - ii. Implement the DEQ approved plan whenever fugitive emissions leave the property for more than 18 seconds in a six-minute period; and
  - iii. Keep the plan on site and make the plan available upon request. [OAR 340-208-0210]
- c. In no case may fugitive dust emissions leave the property of a source for a period or periods totaling more than 18 seconds in a six-minute period. Fugitive emissions are measured using EPA Method 22 with the minimum observation time of six minutes.

### 2.3. Particulate Matter Emissions

The permittee must comply with the following particulate matter emission limits. For fuel burning equipment that burns wood fuel by itself or in combination with any other fuel, emission results are corrected to 12% CO<sub>2</sub>. For fuel burning equipment that burn fuels other than wood, emission results are corrected to 50% excess air.

- a. Particulate matter emissions from NG Heaters must not exceed 0.14 grains per dry standard cubic foot; [OAR 340-228-0210(2)(b)(B)]
- b. Particulate matter emissions from FP-2 must not exceed 0.15 grains per dry standard cubic foot; [OAR 340-226-0210(2)(a)(A), (b)(A) and (c)]
- c. Particulate matter emissions from WWS-1, WS-1, RVT-AL, GDF-1, and FP-1 must not exceed 0.14 grains per dry standard cubic foot; [OAR 340-226-0210(2)(b)(B)]
- d. Particulate matter emissions from any fuel burning equipment (except solid fuel burning devices that have been certified under OAR 340-262-0500) that is installed, constructed or modified on or after April 16, 2015 must not exceed 0.10 grains per dry standard cubic foot, corrected to 12% CO<sub>2</sub> or 50% excess air; [OAR 340-228-0210(2)(c)]
- e. Particulate matter emissions from any device or process (other than fugitive emissions sources, fuel burning equipment, refuse burning equipment, or solid fuel burning devices certified under OAR 340-262-0500) that is installed, constructed or modified after April

16, 2015 must not exceed 0.10 grains per dry standard cubic foot. [OAR 340-226-0210(2)(c)]

#### **2.4. Particulate Matter Fallout**

The permittee must not cause or permit the deposition of any particulate matter larger than 250 microns in size at sufficient duration or quantity, as to create an observable deposition upon the real property of another person. [OAR 340-208-0450]

#### **2.5. Nuisance and Odors**

The permittee must not cause or allow the emission of odorous or other fugitive emissions so as to create nuisance conditions off the permittee's property. DEQ personnel will verify nuisance conditions. [OAR 340-208-0300]

#### **2.6. Complaint Log**

The permittee must maintain a log of all complaints received by the permittee in person, in writing, by telephone or through other means that specifically refer to air pollution, odor, or nuisance concerns associated with the permitted facility. Documentation must include: [OAR 340-214-0114]

- a. The date the complaint was received;
- b. The date and time the complaint states the condition was present;
- c. A description of the pollution or odor condition;
- d. The location of the complainant/receptor relative to the plant site;
- e. The status of plant operation or activities during the complaint's stated time of pollution or odor condition; and
- f. A record of the permittee's actions to investigate the validity of each complaint and a record of actions taken for complaint resolution.

#### **2.7. Fuels and Fuel Sulfur Content**

- a. The permittee must not use any fuels other than natural gas, propane, butane or any of the ASTM grade fuel oils listed below. The sulfur content cannot exceed:
  - i. 0.0015% sulfur by weight for ultra-low sulfur diesel;
  - ii. 0.3% sulfur by weight for ASTM Grade 1 distillate oil; [OAR 340-228-0110]
  - iii. 0.5% sulfur by weight for ASTM Grade 2 distillate oil. [OAR 340-228-0110]

### **3.0 OPERATION AND MAINTENANCE REQUIREMENTS**

#### **3.1. Operation of Pollution Control Devices and Processes**

The permittee must operate and ensure all air pollution control devices and components are functioning properly at all times when the associated emission source is operating. [OAR 340-226-0120]

#### **3.2. NESHAP CCCCC: Gasoline Dispensing Facilities**

- a. The permittee must not allow gasoline to be handled in a manner that would result in vapor releases to the atmosphere for any extended period. Measures to be taken include, but are not limited to the following: [40 CFR 63.11116(a), (b), (d) and OAR 340-244-0240]
  - i. Minimize gasoline spills;
  - ii. Clean up spills as expeditiously as practicable;
  - iii. Cover all open gasoline containers and all gasoline storage tank fill-pipes with a gasketed seal when not in use;
  - iv. Do not top off or overfill vehicle tanks;
  - v. Post a sign at the gasoline dispensing facility instructing a person filling up a motor vehicle to not top off the vehicle tank;
  - vi. Minimize gasoline sent to open waste collection systems that collect and transport gasoline to reclamation and recycling devices, such as oil/water separators;
  - vii. Ensure cargo tanks unloading at the gasoline dispensing facility comply with the requirements of Condition 3.2a, i-v; and
  - viii. Portable gasoline containers that meet the requirements of 40 CFR Part 59, subpart F, are acceptable for compliance with Condition 3.2a iii.
- b. Except for gasoline storage tanks with a capacity of less than 250 gallons, the permittee must only load gasoline into storage tanks at the facility utilizing submerged filling as follows:
  - i. Submerged fill pipes installed on or before Nov. 9, 2006, must be no more than 12 inches from the bottom of the storage tank;
  - ii. Submerged fill pipes installed after Nov. 9, 2006, must be no more than 6 inches from the bottom of the storage tank.
- c. The applicable distances above must be measured from the point in the opening of the submerged fill pipe that is the greatest distance from the bottom of the storage tank.

#### **3.3. NESHAP ZZZZ: Operating Conditions for Emergency Stationary RICE**

The permittee must operate FP-1 and FP-2 in compliance with the following conditions: [40 CFR 63.6640(f)]

- a. There is no time limit on the use of FP-1 and FP-2 during an emergency;
- b. FP-1 and FP-2 may be operated for the purpose of maintenance checks and readiness testing provided the manufacturer, the vendor, or the insurance company associated with

the engine recommend the tests. Required maintenance and testing of such units is limited to 50 hours per year;

- c. The permittee is prohibited from using FP-1 and FP-2, or any emergency stationary RICE, for any non-emergency use including but not limited to peak shaving, demand response operation, and/or generation of income from the sale of power. To perform such activity, the permittee must first obtain a modified permit in accordance with Condition 8.2 or a separate permit for power generation that appropriately addresses and allows this activity.

### **3.4. NESHAP ZZZZ: Operation and Maintenance for Emergency Stationary RICE**

The permittee must operate and maintain FP-1 and FP-2 as follows: [40 CFR 63.6640(f)]

- a. At all times, operate and maintain any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions; [40 CFR 63.6605(b)]
- b. Change oil and filter annually or every 500 hours of operation, whichever comes first; [40 CFR 63.6603(a), table 2d (4)(a)]
- c. Inspect air cleaner annually or every 1,000 hours of operation, whichever comes first. [40 CFR 63.6603(a), table 2d (4)(b)] The permittee may elect to comply with the oil analysis requirements of §63.6625(i) in lieu of the oil change requirement. Oil analyses must be conducted at the same frequency as the oil change requirement;
- d. Inspect all hoses and belts annually or every 500 hours of operation, whichever comes first, and replace as necessary; [40 CFR 63.6603(a), table 2d (4)(c)]
- e. The permittee must operate and maintain each stationary RICE according to the manufacturer's emission-related written instructions, including operation and maintenance instructions. If the permittee develops their own maintenance plan and it is approved by DEQ, that plan may substitute for the manufacturer's instructions; [40 CFR 63.6625(e) and 40 CFR 63.6640(a), Table 6(9)]
- f. During periods of startup, minimize the engine's time spent at idle and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the non-startup emission limitations apply; and [40 CFR 63.6603(a), table 2d]
- g. If not already installed, the permittee must install a non-resettable hour meter on each engine. [40 CFR 63.6625(f)]

### **3.5. Highest and Best Practicable Treatment and Control**

The permittee must provide the highest and best practicable treatment and control of air contaminant emissions in every case to maintain overall air quality at the highest possible levels, and to maintain contaminant concentrations, visibility reduction, odors, soiling, and other deleterious factors at the lowest possible levels. [OAR 340-226-0100]

## 4.0 PLANT SITE EMISSION LIMITS

### 4.1 Plant Site Emission Limits (PSEL)

The permittee must not cause or allow plant site emissions to exceed the following: [OAR 340-222-0040 and/or OAR 340-222-0041, OAR 340-222-0060]

Pollutant	Limit	Units
PM	24	tons per year
PM <sub>10</sub>	14	
PM <sub>2.5</sub>	9	
SO <sub>2</sub>	39	
NO <sub>x</sub>	39	
CO	99	
VOC	39	
GHG (CO <sub>2</sub> e)	74,000	
Single HAP	9	
Combined HAPs	24	

### 4.2 Annual Period

The annual plant site emissions limits apply to any 12-consecutive calendar month period. [OAR 340-222-0035]

## 5.0 COMPLIANCE DEMONSTRATION

### 5.1 PSEL Compliance Monitoring using Emission Factors

The permittee must calculate the emissions for each 12-consecutive calendar month period based on the following calculation for each pollutant except GHGs: [OAR 340-222-0080]

$$E = \Sigma(EF \times P) \times 1 \text{ ton}/2000 \text{ pounds}$$

Where:

$$E = \text{pollutant emissions (tons/year);}$$

- $\Sigma$  = symbol representing “summation of”;  
 EF = pollutant emission factor (see Condition 11.0);  
 P = process production (see Condition 12.0).

## 5.2. Emission Factors

The permittee must use the default emission factors provided in Condition 11.0 for calculating pollutant emissions, unless alternative emission factors are approved in writing by DEQ. The permittee may request or DEQ may require using alternative emission factors provided they be based on actual test data or other documentation (e.g., AP-42 compilation of emission factors) that has been reviewed and approved by DEQ. [OAR 340-222-0080]

## 5.3. Greenhouse Gas Emissions

The permittee must calculate greenhouse gas emissions in metric tons and short tons for each 12-consecutive calendar month period to determine compliance with the GHG PSEL by using the following: [OAR 340-215-0040]

- a. DEQ Fuel Combustion Greenhouse Gas Calculator  
<https://www.oregon.gov/deq/FilterDocs/ghgCalculatorFuelCombust.xlsx>

## 5.4. Mass Balance without controls

The permittee must calculate the VOC / HAP emissions for each 12 consecutive calendar month period based on the following formula: [OAR 340-222-0080]

$$E_{\text{VOC-A}} \text{ or } E_{\text{HAP-A}} = [\Sigma(C_x \times D_x \times K_x) - W] \times 1 \text{ ton}/2000 \text{ pounds}$$

Where:

- $E_{\text{VOC-A}}$  = Annual VOC emissions in tons;  
 $E_{\text{HAP-A}}$  = Annual HAP emissions in tons;  
 $\Sigma$  = symbol representing “summation of”;  
 C = Material usage for the period in gallons;  
 D = Material density in pounds per gallon;  
 K = VOC or HAP concentration, expressed as a decimal;  
 x = Subscript x represents a specific material;  
 W = Weight of VOC or HAP shipped offsite in pounds.

## 5.5. PSEL Compliance Monitoring

The permittee must demonstrate compliance with the PSEL by totaling the emissions from all point sources calculated under Conditions 5.1, 5.3 and 5.4.[OAR 340-222-0080]

## 6.0 RECORDKEEPING REQUIREMENTS

### 6.1. Operation and Maintenance

The permittee must maintain the following records related to the operation and maintenance of the facility and associated air contaminant control devices: [OAR 340-214-0114]

- a. The permittee must maintain monthly and annual plant production records (units/ month and units/ year);
- b. The permittee must maintain monthly and annual records of natural gas usage (plant wide);
- c. Woodworking Shop (WWS-1), the permittee must maintain records demonstrating the throughput weight (tons) of wood processed on a monthly and annual basis;
- d. Welding Shop (WS-1), the permittee must maintain records demonstrating the type and amount of welding rod/ wire usage in pounds on a monthly and annual basis;
- e. RV assembly line (RVT-AL), the permittee must maintain records of all types of VOC & HAP containing materials used and the corresponding VOC & HAP content of each on a monthly & annual basis;
- f. Gasoline dispensing facility (GDF-1), the permittee must maintain records of gasoline throughput in gallons on a monthly and annual basis;
- g. The following records for emergency fire-pump engines FP-1 and FP-2 stationary RICE identified: [40 CFR 63.6655(f)]
  - i. Date, start time, end time and hours of operation of each emergency stationary RICE that is recorded through the non-resettable hour meter;
  - ii. Notification of the emergency situation; including what classified the operation as emergency;
  - iii. Date, start time, end time and hours of non-emergency operation used for maintenance checks and readiness testing;
  - iv. Records of operation and maintenance requirements in Conditions 3.3 and 3.4;
  - v. Fuel certification sheets from each vendor documenting the sulfur content of every shipment of fuel oil in accordance with Condition 2.7.
- h. If complying with this permit by operating any equipment according to manufacturer's instruction, the permittee must keep these instructions readily available for inspector review.

### 6.2. Excess Emissions

- a. The permittee must maintain the records of excess emissions listed below and as defined in OAR 340-214-0300 through 340-214-0340, recorded on occurrence. Typically, excess

emissions are caused by process upsets, startups, shutdowns, or scheduled maintenance. In many cases, excess emissions are evident when visible emissions are greater than 20% opacity as a six-minute block average;

- b. If there is an ongoing excess emission caused by an upset or breakdown, the permittee must immediately take action to minimize emissions by reducing or ceasing operation of the equipment or facility, unless doing so could result in physical damage to the equipment or facility, or cause injury to employees. In no case may the permittee operate more than 48 hours after the beginning of the excess emissions, unless continued operation is approved by DEQ in accordance with OAR 340-214-0330(4);
- c. In the event of any excess emissions which are of a nature that could endanger public health and occur during non-business hours, weekends, or holidays, the permittee must immediately notify DEQ by calling the Oregon Emergency Response System (OERS). The current number is 1-800-452-0311;
- d. The permittee must maintain a log of all excess emissions in accordance with OAR 340-214-0340(3):
  - i. The date and time of the beginning of the excess emissions event and the duration or best estimate of the time until return to normal operation;
  - ii. The date and time the permittee notified DEQ of the event;
  - iii. The equipment involved;
  - iv. Whether the event occurred during planned startup, planned shutdown, scheduled maintenance, or as a result of a breakdown, malfunction, or emergency;
  - v. Steps taken to mitigate emissions and corrective action taken, including whether the approved procedures for a planned startup, shutdown, or maintenance activity were followed;
  - vi. The magnitude and duration of each occurrence of excess emissions during the course of an event and the increase over normal rates or concentrations as determined by continuous monitoring or best estimate (supported by operating data and calculations); and
  - vii. The final resolution of the cause of the excess emissions.

### **6.3. Complaints**

The permittee must maintain a log of all complaints received by the permittee in person, in writing, by telephone or through other means according to Condition 2.6. Documentation must include all information identified in Condition 2.6. [OAR 340-214-0114]

### **6.4. Retention of Records**

Unless otherwise specified, the permittee must retain all records for a period of at least five (5) years from the date of the monitoring sample, measurement, report, or application and make them available to DEQ upon request. The permittee must maintain the two (2) most recent years of records onsite. [OAR 340-214-0114]

## 7.0 REPORTING REQUIREMENTS

### 7.1. Excess Emissions

- a. The permittee must notify DEQ of excess emissions events if the excess emission is of a nature that could endanger public health;
- b. The permittee must also submit follow-up reports summarizing records of excess emissions as required in Condition 6.2 when required by DEQ. Such notice must be provided as soon as possible, but never more than one hour after becoming aware of the problem. Notice must be made to the regional office identified in Condition 9.0 by email, telephone, facsimile, or in person.

### 7.2. Annual Report

For each year this permit is in effect, the permittee must submit to DEQ by **February 15** two (2) paper copies and one (1) electronic copy of the following information for the previous calendar year. If February 15 falls on a weekend or Monday holiday, the permittee must submit their annual report on the next business day.

- a. Operating parameters:
  - i. Annual plant production of recreational vehicles (units/year);
  - ii. Annual amount of natural gas combusted;
  - iii. Annual wood throughput weight (tons) of wood processed in WWS-1;
  - iv. Annual welding rod/wire type and usage (pounds) in WS-1;
  - v. Annual types and amounts of VOC & HAP containing material and the corresponding VOC & HAP content of each;
  - vi. Annual amount of gasoline dispensed in gallons from GDF-1.
- b. The following records for emergency FP-1 and FP-2 stationary RICE identified: [40 CFR 63.6655(f)]
  - i. Hours of operation of each emergency stationary RICE that is recorded through the non-resettable hour meter;
  - ii. Hours of emergency operation; including what classified the operation as emergency; and
  - iii. Hours of non-emergency operation used for maintenance checks and readiness testing.
- c. Calculations of annual pollutant emissions determined each month in accordance with Condition 5.1, 5.3 and 5.4;
- d. A brief summary listing the date, time, and the affected device/process for each excess emission that occurred during the reporting period;
- e. Summary of complaints relating to air quality received by permittee during the year in accordance with Condition 2.6;
- f. List permanent changes made in facility process, production levels, and pollution control equipment which affected air contaminant emissions;
- g. List major maintenance performed on pollution control equipment.

### **7.3. Greenhouse Gas Registration and Reporting**

- a. If the calendar year greenhouse gas emissions (CO<sub>2</sub>e) are ever greater than or equal to 2,756 tons (2,500 metric tons), the permittee must annually register and report its greenhouse gas emissions with DEQ in accordance with OAR 340 division 215;
- b. If the calendar year greenhouse gas emissions (CO<sub>2</sub>e) are less than 2,756 tons (2,500 metric tons) for three consecutive years, the permittee may stop reporting greenhouse gas emissions but must retain all records used to calculate greenhouse gas emissions for the five years following the last year that they were required to report. The permittee must resume reporting its greenhouse gas emissions if the calendar year greenhouse gas emissions (CO<sub>2</sub>e) are greater than or equal to 2,756 tons (2,500 metric tons) in any subsequent calendar year.

### **7.4. Notice of Change of Ownership or Company Name**

The permittee must notify DEQ in writing using a DEQ “Transfer Application Form” within 60 days after the following:

- a. Legal change of the name of the company as registered with the Corporations Division of the State of Oregon; or
- b. Sale or exchange of the activity or facility.

### **7.5. Construction or Modification Notices**

The permittee must notify DEQ in writing using a DEQ “Notice of Intent to Construct form” or other permit application form and obtain approval in accordance with OAR 340-210-0205 through 340-210-0250 before:

- a. Constructing, installing, or establishing a new stationary source that will cause an increase in any regulated pollutant emissions;
- b. Making any physical change or change in operation of an existing stationary source that will cause an increase, on an hourly basis at full production, in any regulated pollutant emissions; or
- c. Constructing or modifying any air pollution control equipment.

## **8.0 ADMINISTRATIVE REQUIREMENTS**

### **8.1. Permit Renewal Application**

The permittee must submit the completed application package for renewal of this permit **180 days prior to the expiration date**. Two (2) paper copies and one (1) electronic copy of the application must be submitted to the DEQ Permit Coordinator listed in Condition 9.0. [OAR 340-216-0040]

## 8.2. Permit Modifications

Application for a modification of this permit must be submitted at least 60 days prior to the source modification. When preparing an application, the applicant should also consider submitting the application 180 days prior to allow DEQ adequate time to process the application and issue a permit before it is needed. A special activity fee must be submitted with an application for the permit modification. The fees and two (2) copies of the application must be submitted to the DEQ Business Office.

## 8.3. Annual Compliance Fee

The permittee must pay the annual fees specified in OAR 340-216-8020, Table 2, Part 2 and 3 for a Simple ACDP by **December 1** of each year this permit is in effect. An invoice indicating the amount, as determined by DEQ regulations will be mailed prior to the above date. **Late fees in accordance with Part 5 of the table will be assessed as appropriate.**

## 8.4. Change of Ownership or Company Name Fee

The permittee must pay the non-technical permit modification fee specified in OAR 340-216-8020, Table 2, Part 4 with an application for changing the ownership or the name of the company.

## 8.5. Special Activity Fees

The permittee must pay the special activity fees specified in OAR 340-216-8020, Table 2, Part 4 with an application to modify the permit.

## 9.0 DEQ CONTACTS / ADDRESSES

### 9.1. Business Office

The permittee must submit payments for invoices, applications to modify the permit, and any other payments to DEQ's Business Office:

Oregon Dept. of Environmental Quality  
Financial Services – Revenue Section  
700 NE Multnomah St., Suite 600  
Portland, Oregon 97232-4100

### 9.2. Permit Coordinator

The permittee must submit all notices and applications that do not include payment to the Permit Coordinator.

Oregon Dept. of Environmental Quality  
Western Region

Air Quality Permit Coordinator  
4026 Fairview Industrial Drive SE  
Salem, OR 97302-1142  
wraqpermits@deq.state.or.us

### 9.3. Report Submittals

Unless otherwise notified, the permittee must submit all reports (annual reports, source test plans and reports, etc.) to DEQ's Region. If you know the name of the Air Quality staff member responsible for your permit, please include it:

Oregon Dept. of Environmental Quality  
Western Region  
4026 Fairview Industrial Drive SE  
Salem, OR 97302-1142

### 9.4. Web Site

Information about air quality permits and DEQ's regulations may be obtained from the DEQ web page at [www.oregon.gov/deq/](http://www.oregon.gov/deq/).

## 10.0 GENERAL CONDITIONS AND DISCLAIMERS

### 10.1. Permitted Activities

- a. Until this permit expires or is modified or revoked, the permittee is allowed to discharge air contaminants from the following:
  - i. Processes and activities directly related to or associated with the devices/processes listed in Condition 1.0 of this permit;
  - i. Any categorically insignificant activities, as defined in OAR 340-200-0020, at the source; and
  - ii. Construction or modification changes that are Type 1 or Type 2 changes under OAR 340-210-0225 that are approved by DEQ in accordance with OAR 340-210-0215 through 0250, if the permittee complies with all of the conditions of DEQ's approval to construct and all of the conditions of this permit.
- b. This permit does not authorize discharge of air contaminants from any other equipment or activity not identified herein.

### 10.2. Other Regulations

In addition to the specific requirements listed in this permit, the permittee must comply with all other applicable legal requirements enforceable by DEQ.

### **10.3. Conflicting Conditions**

In any instance in which there is an apparent conflict relative to conditions in this permit, the most stringent conditions apply. [OAR 340-200-0010]

### **10.4. Masking of Emissions**

The permittee must not cause or permit the installation of any device or use any means designed to mask the emissions of an air contaminant that causes or is likely to cause detriment to health, safety, or welfare of any person or otherwise violate any other regulation or requirement. [OAR 340-208-0400]

### **10.5. DEQ Access**

The permittee must allow DEQ's representatives access to the plant site and pertinent records at all reasonable times for the purposes of performing inspections, surveys, collecting samples, obtaining data, reviewing and copying air contaminant emissions discharge records and conducting all necessary functions related to this permit in accordance with ORS 468.095.

### **10.6. Permit Availability**

The permittee must have a copy of the permit available at the facility at all times. [OAR 340-216-0020(3)]

### **10.7. Open Burning**

The permittee may not conduct any open burning except as allowed by OAR 340, division 264.

### **10.8. Asbestos**

The permittee must comply with the asbestos abatement requirements in OAR 340, division 248 for all activities involving asbestos-containing materials, including, but not limited to, demolition, renovation, repair, construction, and maintenance.

### **10.9. Property Rights**

The issuance of this permit does not convey any property rights in either real or personal property, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of federal, state, or local laws or regulations.

### **10.10. Permit Expiration**

- a. A source may not be operated after the expiration date of the permit, unless any of the following occur prior to the expiration date of the permit: [OAR 340-216-0082]

- i. A timely and complete application for renewal of this permit or for a different ACDP has been submitted; or
  - ii. A timely and complete application for renewal or for an Oregon Title V Operating Permit has been submitted; or
  - iii. Another type of permit (ACDP or Oregon Title V Operating Permit) has been issued authorizing operation of the source.
- b. For a source operating under an ACDP or Oregon Title V Operating Permit, a requirement established in an earlier ACDP remains in effect notwithstanding expiration of the ACDP, unless the provision expires by its terms or unless the provision is modified or terminated according to the procedures used to establish the requirement initially.

### 10.11. Permit Termination, Revocation, or Modification

DEQ may terminate, revoke, or modify this permit pursuant to OAR chapter 340 division 216. [OAR 340-216-0082].

## 11.0 EMISSION FACTORS

Emissions device or activity	Pollutant	Emission Factor (EF)	EF units	EF Reference
Natural Gas Heaters	PM, PM <sub>10</sub> , PM <sub>2.5</sub>	2.5	lb/MMcf	DEQ-AQ-EF05
	SO <sub>2</sub>	1.7		
	NO <sub>x</sub>	100		
	CO	84		
	VOC	5.5		
Woodworking Shop WWS-1 (controlled)	PM	0.50	lb/ton	DEQ-AQ-EF02 DEQ-AQ-EF03
	PM <sub>10</sub>	0.43		
	PM <sub>2.5</sub>	0.25		
MIG Welding WS-1 (uncontrolled)	Manganese	3.18	lb/lb electrode	AP-42 Table 12, 19-1, 19-2
	Cobalt	0.01		
	Nickel	0.01		
	Chromium	0.01		
	PM, PM <sub>10</sub> , PM <sub>2.5</sub>	5.20		
Recreational Vehicle Assembly Line RVT-AL (uncontrolled)	PM, VOC & HAPs	Mass Balance	tons/year	Manufacturer SDS Material Usage
Emergency Fire Pump Engines FP-1 & FP-2	PM, PM <sub>10</sub> , PM <sub>2.5</sub>	42.5	lb/1000 gallons fuel	DEQ-AQ-EF07
	SO <sub>2</sub>	39.7		
	NO <sub>x</sub>	604		
	CO	130		
	VOC	49.3		

**12.0 PROCESS/PRODUCTION RECORDS**

<b>Emissions device or activity</b>	<b>Process or production parameter</b>	<b>Frequency</b>
RV Production	Number of RV units produced	Monthly, Annually
Natural Gas Combustion	Natural gas usage	Monthly, Annually
WWS-1	Wood throughput	Monthly, Annually
WS-1	Welding rod/wire type and usage	Monthly, Annually
RVT-AL	Content of VOC & HAP containing material	Monthly, Annually
GDF-1	Gasoline throughput	Monthly, Annually
FP-1 & FP-2	Hours of operation	Monthly, Annually

## 13.0 ABBREVIATIONS, ACRONYMS, AND DEFINITIONS

ACDP	Air Contaminant Discharge Permit	O <sub>2</sub>	oxygen
ASTM	American Society for Testing and Materials	OAR	Oregon Administrative Rules
AQMA	Air Quality Maintenance Area	ORS	Oregon Revised Statutes
calendar year	The 12-month period beginning January 1st and ending December 31 <sup>st</sup>	O&M	operation and maintenance
CAO	Cleaner Air Oregon	Pb	lead
CFR	Code of Federal Regulations	PCD	pollution control device
CO	carbon monoxide	PEMS	Predictive emission monitoring system
CO <sub>2e</sub>	carbon dioxide equivalent	PM	particulate matter
DEQ	Oregon Department of Environmental Quality	PM <sub>10</sub>	particulate matter less than 10 microns in size
dscf	dry standard cubic foot	PM <sub>2.5</sub>	particulate matter less than 2.5 microns in size
EPA	US Environmental Protection Agency	ppm	part per million
FCAA	Federal Clean Air Act	PSD	Prevention of Significant Deterioration
Gal	gallon(s)	PSEL	Plant Site Emission Limit
GHG	greenhouse gas	PTE	Potential to Emit
gr/dscf	grains per dry standard cubic foot	RACT	Reasonably Available Control Technology
HAP	Hazardous Air Pollutant as defined by OAR 340-244-0040	scf	standard cubic foot
I&M	inspection and maintenance	SER	Significant Emission Rate
lb	pound(s)	SIC	Standard Industrial Code
MMBtu	million British thermal units	SIP	State Implementation Plan
NA	not applicable	SO <sub>2</sub>	sulfur dioxide
NESHAP	National Emissions Standards for Hazardous Air Pollutants	Special Control Area	as defined in OAR 340-204-0070
NO <sub>x</sub>	nitrogen oxides	TACT	Typically Achievable Control Technology
NSPS	New Source Performance Standard	VE	visible emissions
NSR	New Source Review	VOC	volatile organic compound
		year	A period consisting of any 12-consecutive calendar months



State of Oregon  
Department of  
Environmental  
Quality

## SIMPLE AIR CONTAMINANT DISCHARGE PERMIT REVIEW REPORT

Forest River, Inc., Harrisburg, Plant 64  
30725 Diamond Hill Road  
Harrisburg, Oregon 97446-9782

### Source Information:

SIC	3792
NAICS	336214
EPA ICIS-Air ID	OR0000004104308043

Source Categories (Table 1 Part, code)	B, 47
Public Notice Category	II

### Compliance and Emissions Monitoring Requirements:

FCE	
Compliance schedule	
Unassigned emissions	
Emission credits	
Special Conditions	

Source test	
COMS	
CEMS	
PEMS	
Ambient monitoring	

### Reporting Requirements

Annual report (due date)	February 15
Quarterly report (due dates)	

Monthly report (due dates)	
Excess emissions report	
Other (specify)	

### Air Programs

Synthetic Minor (SM)	
SM -80	
NSPS (list subparts)	
NESHAP (list subparts)	6C, 4Z
CAO	
NSR	

PSD	
GHG	
RACT	
TACT	
Other (specify)	

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## **PERMITTING**

### PERMITTEE IDENTIFICATION

1. Forest River, Inc., Harrisburg Plant 64 (Forest River 64) operates a towable RV manufacturing facility at 30725 Diamond Hill Road in Harrisburg, Oregon.

### PERMITTING ACTION

2. The proposed permit is a renewal of an existing Simple Air Contaminant Discharge Permit (ACDP) issued on November 4, 2015 and scheduled to expire on November 1, 2020. The permittee is on a Simple Permit because the facility has actual emissions of more than 10 tons per year of at least one criteria pollutant and no General ACDP is available. The existing Simple ACDP remains in effect until final action is been taken on the renewal application because the permittee submitted a timely and complete application for renewal.
3. Forest River 64 has been determined to be an existing source for the purposes of Cleaner Air Oregon in accordance with OAR 340-245-0020 because the air quality permit application was submitted and deemed complete, or construction had commenced on this facility prior to November 16, 2018. As an existing source, the permittee is required to perform a risk assessment in accordance with OAR 340-245-0050, and demonstrate compliance with the Risk Action Levels for an “Existing Source” in OAR 340-245-8010 Table 1 when requested by DEQ. DEQ has not requested Forest River 64 to perform a risk assessment.

### OTHER PERMITS

4. Other permits issued by the DEQ for this source include:  
NPDES 1200-Z: Storm water run-off

### ATTAINMENT STATUS

5. The source is located in an attainment area for all criteria pollutants.

## **SOURCE DESCRIPTION**

### OVERVIEW

6. The permittee operates a towable RV trailer manufacturing plant. All components including pre-assembled and pre-coated steel frames arrive by truck. On an assembly line, plywood flooring is attached to the frame. Adhesives and fasteners are used to apply carpeting to the floor. Each RV is fitted with cabinets, countertops, electrical components, plumbing, a shell and roof. Every RV gets a trim package and a cleaning before leaving the plant.

At Plant 64, all emissions escape the building uncontrolled with the exception of PM produced in the woodworking shop. The woodworking shop uses a dust collection system with a medium efficiency cyclone to control particulates. The facility was built in 1994.

7. There have been no changes to the facility since the last permit renewal.

## PROCESS AND CONTROL DEVICES

8. Air contaminant sources at the facility consist of the following:
  - a. Quantified emissions from combined natural gas-fired combustion units = 6.25 MMBtu/hour heat input. Emissions vent uncontrolled to the atmosphere through three (3) stacks.
  - b. Quantified process emissions from woodworking shop WWS-1. PM emissions from table saws, radial arm saws and a chop saw, are controlled by a medium efficiency cyclone and dust collection system, vent to the atmosphere.
  - c. Quantified process emissions from welding shop WS-1. Emissions vent uncontrolled to the atmosphere.
  - d. Quantified process emissions from the RV trailer assembly line RVT-AL. VOC and HAP emissions from the use of various paints, primers, mastics, adhesives, sealants, caulking and cleaners, vent uncontrolled to the atmosphere.
  - e. Quantified emissions from two emergency diesel-fired fire pump engines, FP-1 and FP-2, used for fire suppression at the facility. Emissions vent uncontrolled to the atmosphere.
  - f. One 500 gallon above ground gasoline storage tank GDF-1 dispensing approximately 125 gallons / month. VOC emissions are de minimus.
  - g. One 500 gallon above ground diesel storage tank dispensing approximately 125 gallons / month. VOC emissions are de minimus.
  - h. One 200 gallon above ground diesel storage tank providing fuel for fire pump engines FP-1 & FP-2. VOC emissions are de minimus.
  - i. Fugitive PM emissions from material handling, storage piles and vehicular traffic are not quantified and considered insignificant.

## COMPLIANCE HISTORY

9. The facility was last inspected on July 31, 2018 and was determined to be in compliance with the applicable permit conditions.
10. During the prior permit period there were no complaints recorded for this facility.
11. No enforcement actions were taken against this source since the last permit renewal.

**EMISSIONS**

12. Proposed PSEL information:

Pollutant	Baseline Emission Rate (tons/yr)	Netting Basis		Plant Site Emission Limits (PSEL)		
		Previous (tons/yr)	Proposed (tons/yr)	Previous PSEL (tons/yr)	Proposed PSEL (tons/yr)	PSEL Increase (tons/yr)
PM	0	0	0	N/A	24	0
PM <sub>10</sub>	0	0	0	N/A	14	0
PM <sub>2.5</sub>	NA	0	0	N/A	9	0
SO <sub>2</sub>	0	0	0	N/A	39	0
NO <sub>x</sub>	0	0	0	39	39	0
CO	0	0	0	99	99	0
VOC	0	0	0	39	39	0
GHG (CO <sub>2</sub> e)	0	0	0	N/A	74,000	0
Single HAP	0	0	0	9	9	0
Total HAPs	0	0	0	24	24	0

- a. The netting basis is zero for Simple ACDP sources in accordance with OAR 340-222-0040(3).
- b. This permit includes a generic PSEL for all criteria pollutants.
- c. For Simple ACDPs, the proposed PSEL for all pollutants is equal to the Generic PSEL in accordance with OAR 340-216-0064(3)(b).
- d. In order to maintain operational flexibility and to limit HAPs below Title V trigger levels, the permittee has requested the Generic PSEL for HAPs to be included.
- e. The basis for the criteria pollutants and HAPs PSEL is found in Attachment A of the Review Report.
- f. The PSEL is a federally enforceable limit on the potential to emit.

**SIGNIFICANT EMISSION RATE ANALYSIS**

- 13. For each pollutant, the proposed PSEL is less than the sum of the Netting Basis and the significant emission rate, thus no further air quality analysis is required at this time.

**TITLE V MAJOR SOURCE APPLICABILITY**

- 14. A major source is a facility that has the potential to emit 100 tons/year or more of any criteria pollutant or 10 tons/year or more of any single HAP or 25 tons/year or more of combined HAPs. Forest River 64 does not have the potential to be a major source of emissions. The basis for this determination is found in Attachment A of the Review Report.
- 15. A source that has potential to emit at the major source level but accepts a PSEL below major source level is a synthetic minor (SM). Forest River 64 does not have the potential to emit above the major source level and is not a synthetic minor. The basis for this determination is found in Attachment A of the Review Report.
- 16. A source that has the potential to emit above the Title V major source thresholds but is willing to take a limit that is 80% or greater of the major source thresholds (e.g., 80 tons per year or greater for criteria pollutants) is a synthetic minor 80 (SM-80). Forest River 64 does not have the potential to emit above the major source level and is not an SM-80. The basis for this determination is found in Attachment A of the Review Report.
- 17. A source that has the potential to emit less than major source thresholds is a true minor source. Forest River 64 is a true minor source of criteria pollutants and HAPs. The basis for this determination is found in Attachment A of the Review Report.

**CRITERIA POLLUTANTS**

- 18. This facility is a true minor source of criteria pollutant emissions. The basis for this determination is found in Attachment A of the Review Report.

**HAZARDOUS AIR POLLUTANTS**

- 19. This source is not a major source of hazardous air pollutants. The basis for this determination is found in Attachment A of this Review Report.

Hazardous Air Pollutants	Potential to Emit (pounds/year)	Actual Emissions (pounds/year)
Ethylbenzene	80	20
Methyl Isobutyl Ketone	40	0
Cobalt Salts	0	0
Methanol	140	40
Styrene	20	0
Xylene	1,200	360
Cumene	0	0
Hexane	9,400	2,800

Hazardous Air Pollutants	Potential to Emit (pounds/year)	Actual Emissions (pounds/year)
MDI	2,660	780
Toluene	3,540	1,060
Manganese (Mn)	360	100
Total HAP Emissions	17,440	5,160

## CLEANER AIR OREGON

20. The Cleaner Air Oregon Toxic Air Contaminant emissions inventory for this source can be found on this website: [https://www.deq.state.or.us/AQPermitsonline/22-8043-SI-01\\_ATEI\\_2016.PDF](https://www.deq.state.or.us/AQPermitsonline/22-8043-SI-01_ATEI_2016.PDF)
21. DEQ has not called in Forest River 64 and therefore, has not performed a risk assessment.

## TOXICS RELEASE INVENTORY

22. The Toxics Release Inventory (TRI) is federal program that tracks the management of certain toxic chemicals that may pose a threat to human health and the environment, over which DEQ has no regulatory authority. It is a resource for learning about toxic chemical releases and pollution prevention activities reported by certain industrial facilities. Section 313 of the Emergency Planning and Community Right-to-Know Act (EPCRA) created the TRI Program. In general, [chemicals covered by the TRI Program](#) are those that cause:
  - a. Cancer or other chronic human health effects;
  - b. Significant adverse acute human health effects; or
  - c. Significant adverse environmental effects.
23. There are currently over 650 chemicals covered by the TRI Program. Facilities that manufacture, process or otherwise use these chemicals in amounts above established levels must submit annual TRI reports on each chemical.
24. The TRI program does not apply because Forest River 64 does not manufacture, process or use TRI-listed chemicals in quantities above threshold levels in a given year.

## **ADDITIONAL REQUIREMENTS**

### NEW SOURCE PERFORMANCE STANDARDS APPLICABILITY

25. There are no sources at the facility for which a New Source Performance Standards (NSPS) have been promulgated.

### NATIONAL EMISSION STANDARDS FOR HAZARDOUS AIR POLLUTANTS APPLICABILITY

26. 40 CFR Part 63, Subpart CCCCCC is applicable to Forest River 64 because of the above ground 500-gallon gasoline dispensing storage tank. The applicable requirements for this rule are incorporated into Oregon GDF rules outlined in OAR-340-244-0232 through 0252. All applicable GDF requirements are incorporated into the permit.
27. 40 CFR Part 63, Subpart ZZZZ is applicable to Forest River 64 because FP-1 & FP-2, diesel-fired emergency fire pump engines were manufactured before June 12, 2006.
28. 40 CFR Part 63, Subpart MMMM for miscellaneous metal parts coating at major sources is not applicable to Forest River 64 because the facility is not a major source.
29. 40 CFR Part 63, Subpart HHHHHH for area sources who perform miscellaneous metal parts coating is not applicable to Forest River 64 because all metal parts arrive pre-coated.

### GREENHOUSE GAS REPORTING APPLICABILITY

30. The source is not subject to greenhouse gas reporting under division 215 because actual greenhouse gas emissions are less than 2,500 metric tons (2,756 short tons) of CO<sub>2</sub> equivalents per year. If the source ever emits more than this amount, they will be required to report greenhouse gas emissions.

### REASONABLY AVAILABLE CONTROL TECHNOLOGY APPLICABILITY

31. The RACT rules are not applicable to this source because it is not in the Portland AQMA, Medford AQMA, or Salem SKATS.

### TYPICALLY ACHIEVABLE CONTROL TECHNOLOGY APPLICABILITY

32. The source is likely meeting OAR 340-226-0130 Highest and Best Practicable Treatment and Control and Typically Achievable Control Technology (TACT) by:
  - a. Conducting pollution prevention activities such as welding inside a building;
  - b. Installing and operating a dust collection system with cyclone to control particulate emissions.

## **SOURCE TESTING**

33. There are no source testing requirements purposed for this facility during the permit cycle.

## **PUBLIC NOTICE**

34. Pursuant to OAR 340-216-0064(4)(a), issuance of Simple Air Contaminant Discharge Permits require public notice in accordance with OAR 340-209-0030(3)(b), which requires DEQ to provide notice of the proposed permit action and a minimum of 30 days for interested persons to submit written comments. **The public notice was emailed/mailed on Oct. 14, 2020 and the comment period will end Nov. 13, 2020.**

PS:WK

**ATTACHMENT A – EMISSION DETAIL SHEET**

Forest River, Inc., Plant 64  
 30725 Diamond Hill Road, Harrisburg, OR 97446  
 Source #: 22-8043-SI-01  
 Summary Page

Forest River, Inc. Plant 64 (tons / year)							
		Actual	PTE			PSEL	
PM		1.59	5.10			24	
PM10		1.54	4.94			14	
PM2.5		1.43	4.55			9	
SO2		0.11	0.15			39	
NOx		2.32	4.20			39	
CO		0.99	2.57			99	
VOC		21.77	73.04			39	
GHG		<2500	3259	(short tons/ year)		74,000	(short tons/ year)
Highest Single HAP (Hexane)		1.40	4.70			9	
Total Combined HAPs		2.59	8.73			24	

Forest River, Inc., Plant 64  
 30725 Diamond Hill Road, Harrisburg, OR 97446  
 Source #: 22-8043-SI-01  
 Natural Gas Combustion

	Max. Heat Input Capacity
	MMBtu/hour
Main Plant (Heat)	2.80
Paint Room	2.20
Various Room Heaters	1.25
<b>Total</b>	<b>6.25</b>

Actual Throughput	Potential Throughput
MMcf/year	MMcf/year
<b>15.8</b>	<b>53.3</b>

Emission Factors	DEQ-AQ-EF05	Units
PM/PM10/PM2.5	2.50	Ib/MMscf
SO2	1.70	Ib/MMscf
NOx	100.00	Ib/MMscf
CO	84.00	Ib/MMscf
VOC	5.50	Ib/MMscf

Conversion Factors	
1.0 cf NG =	1,027 Btu
1 year =	8760 hours
1 ton =	2,000 lbs.
1.0 MMcf =	1,000,000 cf

Pollutant	Actual tons/year
PM/PM10/PM2.5	0.02
SO2	0.01
NOx	0.79
CO	0.66
VOC	0.04

Pollutant	Potential tons/year
PM/PM10/PM2.5	0.07
SO2	0.05
NOx	2.67
CO	2.24
VOC	0.15

\*\*\*Actual Emissions based on 10 hrs/day \* 5 days/week \* 52 weeks/yr = 2600 hrs/yr

Forest River, Inc., Plant 64  
 30725 Diamond Hill Road, Harrisburg, OR 97446  
 Source #: 22-8043-SI-01  
 PTE - Emergency Fire-Pump Engines

Emergency Engines	FP-1	FP-2
Make	John Deer	GM
Model	JU4HUF40	PTA-1SD-50
Type	CI	CI
S/N	PE4045T372934	393031
BHP	106	79
Manufacture Date	2004	1965
Fuel	ULSD	ULSD
Sulfur Content	<0.5%	<0.5%
Fuel Consumption	5.63 gallons/hour	4.52 gallons/hour
Fuel consumption 500 hours	2815	2260

#2 Diesel	DEQ-AQ-EF07	Units
PM	42.50	lbs/1000 gallons fuel
PM10	42.50	lbs/1000 gallons fuel
PM2.5	42.50	lbs/1000 gallons fuel
SO2	39.70	lbs/1000 gallons fuel
NOx	604.00	lbs/1000 gallons fuel
CO	130.00	lbs/1000 gallons fuel
VOC	49.30	lbs/1000 gallons fuel

Total Gallons /year	5075
---------------------	------

Pollutant	Tons/year
PM/PM10/PM2.5	0.11
SO2	0.10
NOx	1.53
CO	0.33
VOC	0.13

\* 40 CFR Part 63, Subpart ZZZZ is applicable to diesel-fired emergency fire-pump engines (FP-1 & FP-2) because they were manufactured before June 12, 2006. They are limited to 50 hours of on non-emergency use per year for the purpose of testing and maintenance. No operating limits apply to the engine when used during an emergency.

\*\* Calculating Potential to Emit (PTE): The EPA & DEQ believe that 500 hours is an appropriate default assumption for estimating the number of hours an emergency engine could be expected to operate under worst-case conditions.

Forest River, Inc., Plant 64  
 30725 Diamond Hill Road, Harrisburg, OR 97446  
 Source #: 22-8043-SI-01

**Fuel Combustion Greenhouse Gas Calculator (PTE)**

 This sheet calculates greenhouse gas emissions from fuel combustion. 1) Enter the combustion emission sources at the facility (e.g. "boiler 1") in the 1<sup>st</sup> column. 2) In the 2<sup>nd</sup> column, select the fuel type used in each emissions unit. If more than one fuel type was used in a single emissions unit, you must enter that same emissions unit on multiple rows and then enter the 3) Enter the fuel quantities in the 3<sup>rd</sup> column and specify the unit of measure in the 4<sup>th</sup> column. Emissions are then calculated in metric tons of carbon dioxide equivalent (mtCO<sub>2</sub>e).

Enter emissions information				Convert to mmBtu				Emissions (kg/mm			CO <sub>2</sub> Equivalent			Anthropogenic (mtCO <sub>2</sub> e)			Biogenic (mtCO <sub>2</sub> e)
Emissions unit <sup>1</sup>	Fuel Type <sup>2</sup>	Quantity <sup>3</sup>	Fuel units <sup>3</sup>	HHV Units	HHV Unit	HHV	mmBtu	CH <sub>4</sub>	CO <sub>2</sub>	N <sub>2</sub> O	CH <sub>4</sub>	CO <sub>2</sub>	N <sub>2</sub> O	CH <sub>4</sub>	CO <sub>2</sub>	N <sub>2</sub> O	(mtCO <sub>2</sub> e)
Natural Gas Combustion	Natural gas	53	Million cubic ft	53,300,000	cubic ft	0	54,686	0	53	0	25	1	298	1	2,902	2	0
Emergency Engine(s)	Distillate oil 2	5,075	Gallon	5,075	gallon	0.14	700	0	74	0	25	1	298	0	52	0	0
				0	0	0	0	0	0	0	25	1	298	0	0	0	0
				0	0	0	0	0	0	0	25	1	298	0	0	0	0
				0	0	0	0	0	0	0	25	1	298	0	0	0	0
				0	0	0	0	0	0	0	25	1	298	0	0	0	0
				0	0	0	0	0	0	0	25	1	298	0	0	0	0
				0	0	0	0	0	0	0	25	1	298	0	0	0	0

Anthropogenic combustion emissions (mtCO <sub>2</sub> e):	2,957
Biogenic combustion emissions (mtCO <sub>2</sub> e):	0
<b>Total combustion emissions (mtCO<sub>2</sub>e):</b>	<b>2,957</b>

**Conversion to short tons**

Anthropogenic combustion emissions:	3,259
Biogenic combustion emissions:	0
<b>Total combustion emissions:</b>	<b>3,259</b>

Use the following formula to calculate a HHV for woodwaste on a wet basis:

$$HHV_w = (100 - M)/100 * 17.48$$

where HHV<sub>w</sub> = wet basis HHV, M = moisture content (percent). 17.48 is the HHV on a dry basis.

Use this new HHV to replace the default HHV in the calculator above once the "wood/woodwaste" fuel type is selected.

Forest River, Inc., Plant 64  
 30725 Diamond Hill Road, Harrisburg, OR 97446  
 Source #: 22-8043-SI-01  
 Woodworking Operations -PM

		Emission Factor			Controlled PM Emissions		
Process	Process Weight Rate (tons/hour)	* PM Emission Factor (lbs/ton)	PM10 Emission Factor (% of PM)	PM 2.5 Emission Factor (% of PM)	PM Potential Emissions (tons/year)	PM10 Potential Emissions (tons/year)	PM2.5 Potential Emissions (tons/year)
WWS-1 - Woodworking Operation	0.50	0.50	85.00%	50.00%	<b>1.10</b>	<b>0.93</b>	<b>0.55</b>
<b>**Actual Emissions</b>					<b>0.33</b>	<b>0.28</b>	<b>0.16</b>

Control Device: Medium Efficiency Cyclone

\*PM Emission factors from DEQ AQ EF-02 and AQ EF-03

\*\*Actual Emissions based on 10 hrs/day \* 5 days/week \* 52 weeks/yr = 2600 hrs/yr

Forest River, Inc., Plant 64  
 30725 Diamond Hill Road, Harrisburg, OR 97446  
 Source #: 22-8043-SI-01  
 Welding

PROCESS	Number of Stations	Max. electrode consumption / station (lbs/hr)	EMISSION FACTORS* (lb pollutant/lb electrode)					Emissions lbs/hour					Total HAPs tons/year	
			PM = PM10	Mn	Co	Ni	Cr	PM = PM10 /PM2.5	Mn	Co	Ni	Cr		
WELDING														
WS-1 - Metal Inert Gas (MIG carbon steel - E 70S-6)	1	0.0127	5.20	3.18	0.01	0.01	0.01	0.07	0.04	0.000	0.000	0.000		

<b>Emission Totals</b>													
*Actual Emissions tons/year								0.09	0.05	0.00	0.00	0.00	0.05
Potential Emissions tons/year								0.29	0.18	0.00	0.00	0.00	0.18

\*Actual Emissions based on 10 hrs/day \* 5 days/week \* 52 weeks/yr = 2600 hrs/yr

\*Emission Factors from AP-42 Chapter 12.19 (Electric Arc Welding), Table 12.19-1 and 12.19-2.

**Forest River, Inc., Plant 64**  
**30725 Diamond Hill Road, Harrisburg, OR 97446**  
**Source #: 22-8043-SI-01**  
**Assembly PM & VOC - Mass Balance**

Material	VOC											PM			
	SDS ID	Density (Lb/Gal)	Weight % Volatile (H2O & Organics)	Weight % Water	Weight % Organic	Vol.% Non-Volatile	Max. Units/hour	Gal of Material (gal/unit)	Pounds VOC per gallon of coating	VOC pounds per hour	Potential VOC tons per year	Application Method	Transfer Efficiency	Particulate Potential (ton/yr)	Particulate Actual (ton/yr)
2001M HIGH STRENGTH FAST TACK ADHESIVE	101061	5.87	75.77%	0.00%	75.77%	24.23%	1.500	0.826	4.45	5.51	24.13	HVLP	75%	1.93	0.57
502 LSD	100038	9.76	33.60%	0.00%	33.60%	66.40%	1.500	1.217	3.28	5.99	26.22	Caulk	100%	0.00	0.00
Touch N Seal Quick Cure Polyurethane Foam Sealant RX (Reduced Expansion)	102761	8.51	0.00%	0.00%	0.00%	100.00%	1.500	0.039	0.00	0.00	0.00	Foam	100%	0.00	0.00
317BA	102564	8.51	0.50%	0.00%	0.50%	99.50%	1.500	0.812	0.04	0.05	0.23	Roller	100%	0.00	0.00
DYNAGRIP 4000 Subfloor Construction Adhesive	100074	9.18	38.60%	0.00%	38.60%	61.40%	1.500	0.446	3.54	2.37	10.38	Caulk	100%	0.00	0.00
Boring Smith RV Bond	101062	5.34	72.80%	0.00%	72.80%	27.20%	1.500	0.070	3.89	0.41	1.78	HVLP	75%	0.17	0.05
TREMPRO 644 RTV CLEAR	102681	8.47	0.10%	0.00%	0.10%	99.90%	1.500	0.351	0.01	0.00	0.02	Caulk	100%	0.00	0.00
TREMPRO 644 RTV BLACK 3 -	102695	8.76	0.10%	0.00%	0.10%	99.90%	1.500	0.164	0.01	0.00	0.01	Caulk	100%	0.00	0.00
Armstrong S-235 Premium Sheet Flooring Adhesive	100218	8.93	0.16%	0.00%	0.16%	99.84%	1.500	0.124	0.01	0.00	0.01	Roller	100%	0.00	0.00
Power Hold Window & Door Gun Foam, Power Hold RV Black Foam	101946	9.18	14.97%	0.00%	14.97%	85.03%	1.500	0.104	1.37	0.22	0.94	Foam	100%	0.00	0.00
36371; 36374 SEM Solve	101946	6.43	39.83%	0.00%	39.83%	60.17%	1.500	0.065	6.42	0.62	2.73	Wipe	100%	0.00	0.00
551SD	102503	9.76	33.60%	0.00%	33.60%	66.40%	1.500	0.061	3.28	0.30	1.32	Caulk	100%	0.00	0.00
Boring Smith Panel Hold Cleaner	101483	6.59	0.00%	0.00%	0.00%	100.00%	1.500	0.041	0.00	0.00	0.00	Aerosol	50%	0.89	0.26
Industrial WORK DAY Enamel Spray Paint Gloss Black	100037	5.76	61.92%	0.00%	61.92%	38.08%	1.500	0.040	3.57	0.22	0.95	Aerosol	50%	0.29	0.09
Denatured Alcohol	100136	6.79	100.00%	0.00%	100.00%	0.00%	1.500	0.032	6.79	0.33	1.44	Wipe	100%	0.00	0.00
Isopropyl Alcohol	100276	6.55	100.00%	0.00%	100.00%	0.00%	1.500	0.030	6.55	0.29	1.29	Wipe	100%	0.00	0.00
TREMPRO 644 RTV IVORY 4-3	103040	8.47	0.10%	0.00%	0.10%	99.90%	1.500	0.014	0.01	0.00	0.00	Caulk	100%	0.00	0.00
Down Professional Dish Detergent	100743	8.35	5.00%	0.00%	5.00%	95.00%	1.500	0.014	0.42	0.01	0.04	Wipe	100%	0.00	0.00
OATEY CANADIAN STANDARD ABS YELLOW CEMENT	100062	7.34	34.60%	0.00%	34.60%	65.40%	1.500	0.012	2.54	0.04	0.19	Wipe	100%	0.00	0.00
KRYLON WEEKEND Spray Paint Gloss Black	102637	6.09	58.53%	0.00%	58.53%	41.47%	1.500	0.010	3.56	0.06	0.24	Aerosol	50%	0.09	0.03
HIGH PERFORMANCE 100% ACRYLIC SOLID HIDE STAIN NEUTRAL BASE	102688	10.63	7.56%	0.00%	7.56%	92.44%	1.500	0.009	0.90	0.01	0.05	Wipe	100%	0.00	0.00
KRYLON RUST TOUGH Enamel (aerosol) Ruddy Brown Primer	100200	6.84	47.97%	0.00%	47.97%	52.03%	1.500	0.008	3.28	0.04	0.18	Aerosol	50%	0.10	0.03
Silicone Spray	100260	5.34	59.75%	0.00%	59.75%	40.25%	1.500	0.008	3.19	0.04	0.17	Aerosol	50%	0.06	0.02
Oatey Plumber's Putty	103464	15.61	1.07%	0.00%	1.07%	98.93%	1.500	0.006	0.17	0.00	0.01	Wipe	100%	0.00	0.00
WELD-ON T71-4 Low VOC Pipe Cement for ABS Plastic Pipe	101283	7.39	36.62%	0.00%	36.62%	63.38%	1.500	0.004	2.71	0.02	0.08	Wipe	100%	0.00	0.00
53202 OLYMPIC DECK FENCE & SIDING SOLID COLOR-BASE 2	103232	9.85	59.68%	0.00%	59.68%	40.32%	1.500	0.003	5.88	0.03	0.12	Wipe	100%	0.00	0.00
Isopropyl Alcohol	100312	6.59	99.71%	0.00%	99.71%	0.29%	1.500	0.003	6.57	0.03	0.13	Wipe	100%	0.00	0.00
Boring-Smith Panel Hold Gun Foam Adhesive	102961	8.76	14.74%	0.00%	14.74%	85.26%	1.500	0.003	1.29	0.01	0.02	Foam	100%	0.00	0.00
SA3 BATTERY PROTECTOR & SEALER 5 OZ AE	102657	7.09	45.00%	0.00%	45.00%	55.00%	1.500	0.001	3.19	0.01	0.03	Aerosol	50%	0.02	0.01
RUST TOUGH Rust Preventative Enamel (Aerosol) Gloss Black	100036	6.34	74.18%	0.00%	74.18%	25.82%	1.500	0.001	4.70	0.01	0.04	Aerosol	50%	0.01	0.00
Feather-Rite Gal	100438	8.85	20.25%	0.00%	20.25%	79.75%	1.500	0.001	1.79	0.00	0.01	Spread	100%	0.00	0.00
R853 Wax & Grease Remover Degreaser	101703	6.26	100.00%	0.00%	100.00%	0.00%	1.500	0.001	6.26	0.01	0.02	Wipe	100%	0.00	0.00
2028	100031	8.85	1.88%	0.00%	1.88%	98.12%	1.500	0.001	0.17	0.00	0.00	Spread	100%	0.00	0.00
Wiping Stain Dark Walnut	103107	8.35	0.15%	0.00%	0.15%	99.85%	1.500	0.0001	0.01	0.00	0.00	Wipe	100%	0.00	0.00
Blue Cr Hrd 4 Oz/Bulk	102603	10.01	0.00%	0.00%	0.00%	100.00%	1.500	0.0001	0.00	0.00	0.00	Spread	100%	0.00	0.00

Potential VOC Emissions (tons/year)	72.77
Actual VOC Emissions (tons/year)	21.60

\*Actual Emissions based on 10 hrs/day \* 5 days/week \* 52 weeks/yr = 2600 hrs/yr

Potential PM Emissions (tons/year)	3.54
Actual PM Emissions (tons/year)	1.05

\*Actual Emissions based on 10 hrs/day \* 5 days/week \* 52 weeks/yr = 2600 hrs/yr

