

July 20, 2021

Ryan Hibbs, Senior Manager Environmental Operations
BNSF Railway Company
605 Puyallup Avenue
Tacoma, WA 98421

RE: Final Air Discharge Permit for BNSF Railway Company Vancouver Facility

Dear Mr. Hibbs:

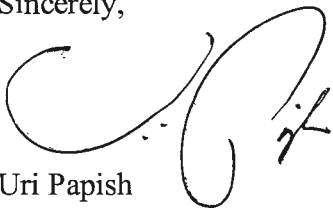
A final determination to issue Air Discharge Permit (ADP) 21-3471 has been completed for ADP Application CL-3167 pursuant to Section 400-110(4) of the General Regulations for Air Pollution Sources of the Southwest Clean Air Agency (SWCAA). Public notice for ADP Application CL-3167 was published in the permit section of SWCAA's website on June 17, 2021. SWCAA did not receive a request for a public comment period in response to the public notice and has concluded that significant public interest does not exist for this determination. Therefore, a public comment period will not be provided for this permitting action. Electronic copies of ADP 21-3471 and the associated Technical Support Document are available for public review in the "Recent Air Discharge Permits" section under the "Air Permits" link on SWCAA's website (<http://www.swcleanair.org>). Original copies are enclosed for your files.

Please note that SWCAA has determined that your emergency engines are subject to 40 CFR 60 Subpart IIII "Standards of Performance for Stationary Compression Ignition Internal Combustion Engines" and 40 CFR 63 Subpart ZZZZ "National Emissions Standards for Hazardous Air Pollutants (NESHAP) for Stationary Reciprocating Internal Combustion Engines." SWCAA has not yet taken delegation of these regulations; therefore, you must communicate directly with EPA regarding compliance demonstrations and other requirements under the regulations. Although SWCAA has not taken delegation, we can provide technical assistance or answer any questions you may have regarding these regulations.

ADP 21-3471 may be appealed directly to the Pollution Control Hearings Board (PCHB) at P.O. Box 40903, Olympia, Washington 98504-0903 within thirty (30) days of receipt as provided in Revised Code of Washington (RCW) 43.21B.

If you have any questions or comments, or desire additional information, please contact me or Danny Phipps at (360) 574-3058, extension 124.

Sincerely,



Uri Papish
Executive Director

UP:dp

Enclosure: Air Discharge Permit 21-3471 and Technical Support Document



SOUTHWEST CLEAN AIR AGENCY

**AIR DISCHARGE PERMIT
21-3471**

Final Date: July 20, 2021

Facility Name: BNSF Railway Company
Physical Location: 1310 W 11th St, Vancouver, WA 98660
SWCAA ID: 0228



REVIEWED BY: *Paul T. Mairose*
Paul T. Mairose, Chief Engineer

APPROVED BY: *Uri Papish*
Uri Papish, Executive Director

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Appendix A Emission Testing Requirements Lochinvar Boiler

1. Equipment/Activity Identification

ID No.	Equipment/Activity	No. of Units	Control Equipment	No. of Units
1	Lochinvar Boiler (m/n FTX07225)	1	Low sulfur fuel (natural gas)	N/A
2	Space Heaters (24 units) and Hot Water Heaters (3 units)	27	Low sulfur fuel (natural gas)	N/A
3	Emergency Generator Diesel Engine – Lift Station, Cummins (QSB5-G13)	1	Ultra low sulfur diesel fuel (15 ppm)	N/A
4	Emergency Generator Diesel Engine – Building A, Cummins (QSB5-G13)	1	Ultra low sulfur diesel fuel (15 ppm)	N/A
5	Emergency Generator Diesel Engine – Wastewater Treatment Plant, Cummins (QSK23-G7 NR2)	1	Ultra low sulfur diesel fuel (15 ppm)	N/A
6	Gasoline Fuel Dispensing and Storage (Tank #7)	1	None	N/A
7	Diesel Dispensing and Storage (Tank #2 and Tank #3)	2	Pressure Valve, Emergency Valve, and Safety Valve	6

2. Approval Conditions

The following tables detail the specific requirements of this Air Discharge Permit (ADP). In addition to the requirements listed below, equipment at this facility may be subject to other federal, state, and local regulations. The requirement number is identified in the left-hand column. The text of the permit requirement is contained in the middle column. The emission unit, equipment, or activity to which the permit requirement applies is listed in the right-hand column.

ADP 21-3471 supersedes Air Discharge Permit 20-3426 and Small Unit Notifications 262 and 263 (SUN-262 and SUN-263) in their entirety.

2.1. Emission Limits

Req. No.	Emission Limits	Equipment/ Activity ID No.																		
1.	<p>Combined emissions from the facility must not exceed any of the following:</p> <table border="1"> <thead> <tr> <th>Pollutant</th> <th>Emission Limit</th> </tr> </thead> <tbody> <tr> <td>NO_x</td> <td>3.64 tpy</td> </tr> <tr> <td>CO</td> <td>1.66 tpy</td> </tr> <tr> <td>VOC</td> <td>1.46 tpy</td> </tr> <tr> <td>PM₁₀, total</td> <td>0.18 tpy</td> </tr> <tr> <td>PM_{2.5}, total</td> <td>0.18 tpy</td> </tr> <tr> <td>SO₂</td> <td>0.03 tpy</td> </tr> </tbody> </table> <p>The long-term emission limits are 12-month rolling sums calculated consistent with Section 6 of the Technical Support Document for this ADP.</p>	Pollutant	Emission Limit	NO _x	3.64 tpy	CO	1.66 tpy	VOC	1.46 tpy	PM ₁₀ , total	0.18 tpy	PM _{2.5} , total	0.18 tpy	SO ₂	0.03 tpy	Facilitywide				
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SO ₂	0.03 tpy																			
2.	<p>Emissions from the Lochinvar Boiler must not exceed any of the following:</p> <table border="1"> <thead> <tr> <th>Pollutant</th> <th colspan="2">Emission Limit</th> </tr> </thead> <tbody> <tr> <td>NO_x</td> <td>0.12 tpy</td> <td>30 ppmvd</td> </tr> <tr> <td>CO</td> <td>0.12 tpy</td> <td>50 ppmvd</td> </tr> <tr> <td>VOC</td> <td>0.017 tpy</td> <td>—</td> </tr> <tr> <td>PM₁₀, total</td> <td>0.024 tpy</td> <td>—</td> </tr> <tr> <td>PM_{2.5}, total</td> <td>0.024 tpy</td> <td>—</td> </tr> </tbody> </table> <p>The long-term emission limits are 12-month rolling sums calculated consistent with Section 6 of the Technical Support Document for this ADP. The short-term emission limits are determined as a 1-hour average, corrected to 3% O₂.</p>	Pollutant	Emission Limit		NO _x	0.12 tpy	30 ppmvd	CO	0.12 tpy	50 ppmvd	VOC	0.017 tpy	—	PM ₁₀ , total	0.024 tpy	—	PM _{2.5} , total	0.024 tpy	—	1
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VOC	0.017 tpy	—																		
PM ₁₀ , total	0.024 tpy	—																		
PM _{2.5} , total	0.024 tpy	—																		
3.	<p>Emissions from the Space Heaters and Water Heaters, combined, must not exceed any of the following:</p> <table border="1"> <thead> <tr> <th>Pollutant</th> <th>Emission Limit</th> </tr> </thead> <tbody> <tr> <td>NO_x</td> <td>1.72 tpy</td> </tr> <tr> <td>CO</td> <td>1.45 tpy</td> </tr> <tr> <td>VOC</td> <td>0.10 tpy</td> </tr> <tr> <td>PM₁₀, total</td> <td>0.14 tpy</td> </tr> <tr> <td>PM_{2.5}, total</td> <td>0.14 tpy</td> </tr> </tbody> </table> <p>The long-term emission limits are 12-month rolling sums calculated consistent with Section 6 of the Technical Support Document for this ADP.</p>	Pollutant	Emission Limit	NO _x	1.72 tpy	CO	1.45 tpy	VOC	0.10 tpy	PM ₁₀ , total	0.14 tpy	PM _{2.5} , total	0.14 tpy	2						
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4.	<p>Visible emissions from the Lochinvar Boiler, any Space Heater, or any Hot Water Heater must not exceed zero percent (0%) opacity for more than three (3) minutes in any 1-hour period as determined by a Certified Observer in accordance with SWCAA Method 9.</p>	1 and 2																		

Req. No.	Emission Limits	Equipment/ Activity ID No.
5.	Visible emissions from the Emergency Generator Diesel Engines must not exceed the following for more than three (3) minutes in any 1-hour period as determined by a Certified Observer in accordance with SWCAA Method 9: a. Twenty percent (20%) during startup or shutdown; and b. Five percent (5%) at all other times. The startup period is defined as the first twenty (20) minutes of operation from a cold start and shutdown is defined as when fuel flow to the engine has stopped.	3-5
6.	VOC emissions from Gasoline Dispensing and Storage must not exceed 0.32 tpy, as a 12-month rolling sum. Emissions shall be calculated consistent with the methodology in Section 6 of the Technical Support Document.	6
7.	VOC emissions from Diesel Dispensing and Storage must not exceed 1.00 tpy, as a 12-month rolling sum. Emissions shall be calculated consistent with the methodology in Section 6 of the Technical Support Document.	7

2.2. Operating Limits and Requirements

Req. No.	Operating Limits and Requirements	Equipment/ Activity ID No.
8.	Reasonable precautions must be taken at all times to prevent and minimize fugitive emissions from plant operations.	Facilitywide
9.	Operations that cause or contribute to a nuisance odor must use recognized good practice and procedures to reduce these odors to a reasonable minimum.	Facilitywide
10.	Emission units and activities identified in this ADP must be maintained and operated in total and continuous conformity with the conditions identified in this ADP. SWCAA reserves the right to take any and all appropriate action to maintain the conditions of this ADP, including directing the facility to cease operations until corrective action can be completed.	Facilitywide
11.	Each pollution control device must be operated whenever the processing equipment served by that air pollution control device is in operation. Control devices must be operated and maintained in accordance with the manufacturer's specifications. Furthermore, air pollution control devices must be operated in a manner that minimizes emissions.	1-5
12.	All exhausts must be discharged vertically into the ambient air. If located in a building, the discharge must be above the level of the building roof.	1-5
13.	Any device that obstructs or prevents vertical discharge is prohibited.	1-5
14.	The Lochinvar Boiler, Space Heaters, and Hot Water Heaters must be fired on natural gas while under normal operating conditions.	1 and 2
15.	The Emergency Generator Diesel Engines must only be fired on Diesel or biodiesel with a maximum sulfur content of 15 ppmw. Any fuel other than ultra low sulfur diesel or biodiesel must be approved by SWCAA in writing prior to use.	3-5

Req. No.	Operating Limits and Requirements	Equipment/ Activity ID No.
16.	The Emergency Generator Diesel Engines must be equipped with a non-resettable hour meter to record hours of operation.	3-5
17.	Operation of the Emergency Generator Diesel Engines for maintenance checks and readiness testing must not exceed 100 hr/yr for each of the engines. Emergency operation of the emergency engines is not limited.	3-5

2.3. Monitoring and Recordkeeping Requirements

Req. No.	Monitoring and Recordkeeping Requirements	Equipment/ Activity ID No.
18.	With the exception of data logged by a computerized data acquisition system, each record required by this ADP must include the date and the name of the person making the record entry, at minimum. If a control device or process is not operating during a specific time period, a record must be made to that effect.	Facilitywide
19.	All records required by this ADP must be kept for a minimum period of no less than three (3) years and must be maintained in a form readily available for inspection by SWCAA representatives.	Facilitywide
20.	Excess emissions and upset conditions must be recorded for each occurrence.	Facilitywide
21.	The following must be recorded in an operation and maintenance log: <ul style="list-style-type: none"> a. Any upset condition or excess emission that may result in the emission of air pollutants must be recorded for each occurrence; b. The hours of operation for each of the Emergency Generator Diesel Engines must be recorded once per month; and c. Maintenance and repair activities that may affect the emissions of air pollutants, must be recorded for each occurrence. 	Facilitywide
22.	At least once per calendar month, a brief qualitative observation for the purpose of identifying the presence of visible emissions from emission units subject to an opacity limit must be performed during daylight hours while the unit is under normal operation (i.e., not in startup, shut down, or upset). <ul style="list-style-type: none"> a. If no visible emissions are observed, a record must be made and no further action is necessary; or b. If visible emissions are observed, then the Permittee must verify that the unit is meeting the applicable emissions limit. If the limit is being met, a record must be made and no further action is necessary; and c. If the unit is exceeding the applicable emissions limit, then the Permittee must report the excess emissions, make a record, and take corrective actions until such time as compliance with the limit can be demonstrated. 	1-5

2.4. Emission Monitoring and Testing Requirements

Req. No.	Emission Monitoring and Testing Requirements	Equipment/ Activity ID No.
23.	Emission monitoring of the Lochinvar Boiler must be conducted no later than the end of December every calendar year. Tests performed more than three months prior to the due date do not satisfy the testing requirements without prior written approval from SWCAA.	1

2.5. Reporting Requirements

Req. No.	Reporting Requirements	Equipment/ Activity ID No.
24.	Upset conditions must be reported to SWCAA as soon as possible after discovery. Outside of normal business hours, upset conditions may be reported by sending a fax or leaving a telephone message with SWCAA.	Facilitywide
25.	Excess emissions must be reported to SWCAA as follows: <ul style="list-style-type: none"> • As soon as possible, but no later than twelve (12) hours after discovery for emissions that represent a potential threat to human health or safety; • As soon as possible, but no later than forty-eight (48) hours after discovery for emissions which the Permittee wishes to claim as unavoidable pursuant to SWCAA 400-107(1); and • No later than thirty (30) calendar days after the end of the month of discovery for all other excess emissions. 	Facilitywide
26.	All air quality related complaints received by the Permittee must be reported to SWCAA within three (3) calendar days of receipt. Complaint reports must include the date and time of the complaint, the name and contact information (if available) for the complainant, the nature of the complaint, and any actions taken by the Permittee to address the complaint.	Facilitywide
27.	An annual emissions inventory report must be submitted to SWCAA by March 15 for emissions from the previous calendar year in accordance with SWCAA 400-105(1). Each report must contain, at a minimum, the following information: <ol style="list-style-type: none"> a. The annual sum of emissions of NO_x, CO, VOC, PM, PM₁₀, PM_{2.5}, SO₂, TAPs, and HAPs; b. The number of hours that the facility operated; c. The annual quantity of fuel burned in the Lochinvar Boiler; d. The annual quantity of fuel burned in the Space Heaters and Hot Water Heaters; e. The annual number of hours operated or quantity of fuel burned in each Emergency Generator Diesel Engines; and f. The annual quantity of gasoline and diesel or biodiesel dispensed by the facility. 	1-5
28.	Emission monitoring results from the Lochinvar Boiler must be reported to SWCAA in writing within fifteen (15) calendar days of completion.	1

3. General Provisions

Req. No.	General Provisions
A.	For the purpose of ensuring compliance with this ADP, duly authorized representatives of the Southwest Clean Air Agency must be permitted access to the Permittee's premises and the facilities being constructed, owned, operated and/or maintained by the Permittee for the purpose of inspecting said facilities. These inspections are required to determine the status of compliance with this ADP and applicable regulations and to perform or require such tests as may be deemed necessary.
B.	The provisions, terms, and conditions of this ADP bind the Permittee, its officers, directors, agents, servants, employees, successors and assigns, and all persons, firms, and corporations acting under or for the Permittee.
C.	The requirements of this ADP survive any transfer of ownership of the source or any portion thereof.
D.	This ADP must be posted conspicuously at or be readily available near the source.
E.	This ADP will be invalid if construction or installation of any new or modified equipment has not commenced within eighteen (18) months from date of issuance, if construction is discontinued for a period of eighteen (18) months or more, or if construction is not completed within a reasonable time.
F.	This ADP does not supersede requirements of other Agencies with jurisdiction and further, this ADP does not relieve the Permittee of any requirements of any other governmental Agency. In addition to this ADP, the Permittee may be required to obtain permits or approvals from other agencies with jurisdiction.
G.	Compliance with the terms of this ADP does not relieve the Permittee from the responsibility of compliance with SWCAA General Regulations for Air Pollution Sources, previously issued Regulatory Orders, RCW 70A.15, Title 173 WAC or any other applicable emission control requirements, nor from the resulting liabilities and/or legal remedies for failure to comply.
H.	If any provision of this ADP is held to be invalid, all unaffected provisions of the ADP will remain in effect and be enforceable.
I.	No change in this ADP will be made or be effective except as may be specifically set forth by written order of the Southwest Clean Air Agency upon written application by the Permittee for the relief sought.
J.	The Southwest Clean Air Agency may, in accordance with RCW 70A.15 impose such conditions as are reasonably necessary to assure the maintenance of compliance with the terms of this ADP, the Washington Clean Air Act, and the applicable rules and regulations adopted under the Washington Clean Air Act.

Air Discharge Permit 21-3471 - Appendix A
Emission Monitoring Requirements
Lochinvar Boiler

1. Background

The purpose of emission monitoring ("tuning") is to quantify emissions from the Lochinvar Boiler, provide a basis for adjust the boiler as necessary to minimize emissions, and to provide a reasonable assurance that the boiler is operating properly.

2. Test Constituents and Test Methods

- a. Oxygen (O₂) using a calibrated portable combustion analyzer or EPA Methods 3 or 3A;
- b. Nitrogen oxides (NO_x) using a calibrated portable combustion analyzer or EPA Method 7E; and
- c. Carbon monoxide (CO) using a calibrated portable combustion analyzer or EPA Method 10.

Combustion analyzers include electrochemical cell combustion analyzers, analyzers used for reference method testing, or other analyzers pre-approved by SWCAA.

3. Emission Monitoring Requirements

- a. Dates. Monitoring must be conducted no later than the end of December each calendar year. Monitoring performed more than three months prior to the due date do not satisfy the monitoring requirements without prior written approval by SWCAA. Monitoring must be conducted unless the boiler is not in use during that year or a reference method source test was conducted on the boiler during that year.
- b. Source Operation. Boiler operation during emissions monitoring must be representative of current intended maximum operating conditions.
- c. Data Collection.
 - (1) Sampling must consist of at least one (1) test consisting of at least five (5) minutes of data collection following a "ramp-up phase." The ramp-up phase ends when analyzer readings have stabilized (less than 5% per minute change in emission concentration). Emission concentrations must be recorded at least once every thirty (30) seconds during the data collection phase. All test data collected following the ramp-up phase must be reported to SWCAA.
 - (2) The analyzer(s) response to span gas of a known concentration must be determined before and after testing. No more than twelve (12) hours may elapse between span gas response checks. The results of the analyzer response will not be valid if the pre- and post-response check results vary by more than 10% of the known span gas value.
 - (3) The CO and NO_x span gas concentrations must be no less than 50% and no more than 200% of the emission concentration corresponding to the permitted emission limit. A lower concentration span gas may be used if it is more representative of measured concentrations. Ambient air may be used to zero the CO and NO_x cells/analyzer(s) and span the oxygen cell/analyzer.
 - (4) If the monitoring results from any monitoring event indicate that emission concentrations exceed the permitted emission limits for the unit, the Permittee must either perform sixty (60) minutes of additional monitoring to more accurately quantify CO and NO_x emissions, or initiate corrective action. Additional monitoring

Air Discharge Permit 21-3471 - Appendix A
Emission Monitoring Requirements
Lochinvar Boiler

or corrective action must be initiated as soon as practical but no later than three (3) calendar days after the exceedance is identified. Corrective action includes tuning, maintenance by service personnel, limitation of unit load, or other action taken to maintain compliance with permitted limits. Monitoring of unit emissions must be conducted within three (3) calendar days following completion of any corrective action to confirm that the corrective action has been effective. Initiation of corrective action does not shield the Permittee from enforcement.

4. Reporting Requirements

Monitoring results must be reported to SWCAA within fifteen (15) calendar days of tuning completion. The average of the results of each run is evaluated against the requirements of ADP 21-3471. Results must be submitted on forms provided by SWCAA or in an alternative format previously approved by SWCAA. The report must include the following information:

- a. A description of the emission unit including manufacturer, model number and facility designation;
- b. Time and date of the emissions evaluation;
- c. Identification of the personnel involved;
- d. A summary of collected data (NO_x, CO, O₂, etc.), calculations, and final results, reported in units consistent with the applicable emission standard or limit;
- e. A summary of equipment operating conditions (e.g., firing rate, fuel flow, stack temperature, etc.);
- f. A summary of control system or equipment operating conditions;
- g. A description of the evaluation methods or procedures used, including all field data, quality assurance/quality control procedures and documentation; and
- h. Analyzer response check and calibration error documentation, including calibration gas certificates.

Individual data points must be reported as read. Final average monitoring results must be corrected to 3% O₂ and adjusted to reflect analyzer response to zero and span gases.

A spreadsheet version of the SWCAA Combustion Equipment Monitoring Data Sheet is available at <http://www.swcleanair.org>.

5. Changes to Requirements

Tuning must be conducted as specified in the sections above. The Permittee may submit a written request to SWCAA for approval of minor modifications to the requirements above or the tuning schedule. Upon review of the request and in accordance with EPA delegation, SWCAA will inform the Permittee in writing of any approved modifications.

State Environmental Policy Act

DETERMINATION OF NONSIGNIFICANCE (DNS) – SWCAA 21-020

Description of proposal:

ADP Application L-3167: Installation of an emergency generator. Applicant proposes to install and operate an emergency generator at the wastewater treatment plant. The proposed project does not involve any excavation, building construction or change in land use. Existing repair and service operations will continue unchanged. Impact on media other than air will be negligible. Air impact will be minimized by operational limits in SWCAA's air discharge permit.

Proponent: BNSF Railway (Ryan Hibbs, Senior Manager - Environmental Operations)

Location of proposal, including street address if any:

1310 West 11th Street in Vancouver, WA 98660

Lead agency: Southwest Clean Air Agency

The lead agency for this proposal has determined that it does not have a probable significant impact on the environment. An environmental impact statement (EIS) is not required under RCW 43.21C.030(2)(c). This decision was made after review of a completed environmental checklist and other information on file with the lead agency. This information is available to the public on request.

- There is no comment period for this DNS.
- This DNS is issued after using the optional DNS process in WAC 197-11-355. There is no further comment period in the DNS.
- This DNS is issued under WAC 197-11-340(2); the lead agency will not act on this proposal for 15 days from the date below. Comments must be submitted by _____.

Responsible official: Paul T. Mairose, P.E.

Position/title: Chief Engineer

Address: Southwest Clean Air Agency
11815 NE 99th St, Suite 1294
Vancouver, WA 98682-2322

Phone: (360) 574-3058, ext 130

Signature: Paul T. Mairose

Date: 7/20/2021

