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September 28, 2022

Mr. Paul Richie, Supervisor of Facilities  
Kelso School District No. 458  
601 Crawford Street  
Kelso, WA 98626

Subject: Final Air Discharge Permit for New Boilers and Water Heaters at Huntington Middle School

Dear Mr. Richie:

A final determination to issue Air Discharge Permit 22-3543 (ADP 22-3543) has been completed for Air Discharge Permit (ADP) Application CO-1059 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 CO-1059 was published in the permit section of SWCAA's internet website on September 8, 2022. 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 22-3543 and the associated Technical Support Document are available for public review in the permit section of SWCAA's internet website (<http://www.swcleanair.gov/permits/adpfinal.asp>). Original copies are enclosed for your files.

This Air Discharge Permit may be appealed directly to the Pollution Control Hearings Board (PCHB) at P.O. Box 40903, Olympia, Washington 98504-0903 within 30 days of receipt as provided in RCW 43.21B.

If you have any comments, or desire additional information, please contact me or Wess Safford at (360) 574-3058, extension 126.

Sincerely,



Uri Papish  
Executive Director

UP:wls

Enclosure – Air Discharge Permit 22-3543 and Technical Support Document





**SWCAA**  
Southwest Clean Air Agency

**AIR DISCHARGE PERMIT  
22-3543**

**Issued: September 28, 2022**

Kelso School District No. 458  
601 Crawford Street, Kelso, WA 98626

SWCAA ID - 575



REVIEWED BY:

Clinton H. Lamoreaux  
Clinton Lamoreaux, Chief Engineer

APPROVED BY:

Uri Papish for Uri Papish  
Uri Papish, Executive Director

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**1. Equipment/Activity Identification**

<b>ID No.</b>	<b>Equipment/Activity</b>	<b>Control Measure/Equipment</b>
1	Kelso High School – Natural Gas-fired Equipment	Low Sulfur Fuel (natural gas), Low Emission Burners (some units)
2	Huntington Middle School – Natural Gas-fired Equipment	Low Sulfur Fuel (natural gas), Low Emission Burners (some units)
3	Coweeman Middle School – Natural Gas-fired Equipment	Low Sulfur Fuel (natural gas)
4	Barnes Elementary School – Natural Gas-fired Equipment	Low Sulfur Fuel (natural gas)
5	Rose Valley Elementary School – Boiler	Ultra-Low Sulfur Diesel ( $\leq 0.0015\%$ S)
6	Kelso High School – Emergency Generator Engine	Ultra-Low Sulfur Diesel ( $\leq 0.0015\%$ S), Limited Operation
7	Barnes Elementary School – Emergency Generator Engine	Ultra-Low Sulfur Diesel ( $\leq 0.0015\%$ S), Limited Operation

**2. Approval Conditions**

The following tables detail the specific requirements of this permit. In addition to the requirements listed below, equipment at this facility may be subject to other federal, state, and local regulations. The permit 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 22-3543 supersedes ADP 20-3381 in its entirety.

**Emission Limits**

<b>Req. No.</b>	<b>Emission Limits</b>	<b>Equipment/Activity ID No.</b>																								
1.	<p>Emissions from natural gas-fired equipment must not exceed:</p> <table border="1"> <thead> <tr> <th></th> <th>NO<sub>x</sub></th> <th>CO</th> <th>PM<sub>10</sub></th> </tr> <tr> <th><u>Facility</u></th> <th><u>(tpy)</u></th> <th><u>(tpy)</u></th> <th><u>(tpy)</u></th> </tr> </thead> <tbody> <tr> <td>Kelso High School</td> <td>4.73</td> <td>4.51</td> <td>0.58</td> </tr> <tr> <td>Huntington Middle School</td> <td>0.98</td> <td>1.13</td> <td>0.20</td> </tr> <tr> <td>Coweeman Middle School</td> <td>1.79</td> <td>1.50</td> <td>0.14</td> </tr> <tr> <td>Barnes Elementary School</td> <td>1.17</td> <td>0.98</td> <td>0.09</td> </tr> </tbody> </table> <p>Annual emissions must be calculated from actual fuel consumption using the emission factors presented in the Technical Support Document for this Air Discharge Permit unless more recent source test data has been collected.</p>		NO <sub>x</sub>	CO	PM <sub>10</sub>	<u>Facility</u>	<u>(tpy)</u>	<u>(tpy)</u>	<u>(tpy)</u>	Kelso High School	4.73	4.51	0.58	Huntington Middle School	0.98	1.13	0.20	Coweeman Middle School	1.79	1.50	0.14	Barnes Elementary School	1.17	0.98	0.09	1-4
	NO <sub>x</sub>	CO	PM <sub>10</sub>																							
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<b>Req. No.</b>	<b>Emission Limits</b>	<b>Equipment/ Activity ID No.</b>								
2.	Emissions from Kelso High School Boilers B-1 through B-7, B-9 through B-12, B-15, and B-16 must not exceed the following: <table border="0"> <tr> <td><u>Pollutant</u></td> <td><u>Emission Limit</u></td> </tr> <tr> <td>NO<sub>x</sub></td> <td>30 ppmvd @ 3% O<sub>2</sub> (1-hr avg)</td> </tr> <tr> <td>CO</td> <td>50 ppmvd @ 3% O<sub>2</sub> (1-hr avg)</td> </tr> </table>	<u>Pollutant</u>	<u>Emission Limit</u>	NO <sub>x</sub>	30 ppmvd @ 3% O <sub>2</sub> (1-hr avg)	CO	50 ppmvd @ 3% O <sub>2</sub> (1-hr avg)	1		
<u>Pollutant</u>	<u>Emission Limit</u>									
NO <sub>x</sub>	30 ppmvd @ 3% O <sub>2</sub> (1-hr avg)									
CO	50 ppmvd @ 3% O <sub>2</sub> (1-hr avg)									
3.	Emissions from Huntington Middle School Boilers 1 and 2 must not exceed the following: <table border="0"> <tr> <td><u>Pollutant</u></td> <td><u>Emission Limit</u></td> </tr> <tr> <td>NO<sub>x</sub></td> <td>30 ppmvd @ 3% O<sub>2</sub> (1-hr avg)</td> </tr> <tr> <td>CO</td> <td>50 ppmvd @ 3% O<sub>2</sub> (1-hr avg)</td> </tr> </table>	<u>Pollutant</u>	<u>Emission Limit</u>	NO <sub>x</sub>	30 ppmvd @ 3% O <sub>2</sub> (1-hr avg)	CO	50 ppmvd @ 3% O <sub>2</sub> (1-hr avg)	2		
<u>Pollutant</u>	<u>Emission Limit</u>									
NO <sub>x</sub>	30 ppmvd @ 3% O <sub>2</sub> (1-hr avg)									
CO	50 ppmvd @ 3% O <sub>2</sub> (1-hr avg)									
4.	Emissions from Coweeman Elementary School Boiler 1 and Barnes Elementary School Boiler 1 must not exceed the following: <table border="0"> <tr> <td><u>Pollutant</u></td> <td><u>Emission Limit</u></td> </tr> <tr> <td>NO<sub>x</sub></td> <td>81 ppmvd @ 3% O<sub>2</sub> (1-hr avg)</td> </tr> <tr> <td>CO</td> <td>112 ppmvd @ 3% O<sub>2</sub> (1-hr avg)</td> </tr> </table>	<u>Pollutant</u>	<u>Emission Limit</u>	NO <sub>x</sub>	81 ppmvd @ 3% O <sub>2</sub> (1-hr avg)	CO	112 ppmvd @ 3% O <sub>2</sub> (1-hr avg)	3-4		
<u>Pollutant</u>	<u>Emission Limit</u>									
NO <sub>x</sub>	81 ppmvd @ 3% O <sub>2</sub> (1-hr avg)									
CO	112 ppmvd @ 3% O <sub>2</sub> (1-hr avg)									
5.	Emissions from the Rose Valley Elementary School Boiler must not exceed:  <table border="0"> <tr> <td><u>Pollutant</u></td> <td><u>Emission Limit</u></td> </tr> <tr> <td>NO<sub>x</sub></td> <td>0.50 tpy</td> </tr> <tr> <td>CO</td> <td>0.12 tpy</td> </tr> <tr> <td>PM<sub>10</sub></td> <td>0.08 tpy</td> </tr> </table> <p>Annual emissions must be calculated from actual fuel consumption using the emission factors presented in the Technical Support Document for this Air Discharge Permit unless more recent source test data has been collected.</p>	<u>Pollutant</u>	<u>Emission Limit</u>	NO <sub>x</sub>	0.50 tpy	CO	0.12 tpy	PM <sub>10</sub>	0.08 tpy	5
<u>Pollutant</u>	<u>Emission Limit</u>									
NO <sub>x</sub>	0.50 tpy									
CO	0.12 tpy									
PM <sub>10</sub>	0.08 tpy									
6.	Visible emissions from natural gas-fired equipment must not exceed zero percent opacity for more than three minutes in any one-hour period as determined in accordance with SWCAA Method 9 (See Appendix A of SWCAA 400).	1-4								
7.	Visible emissions from the Rose Valley Elementary School diesel-fired boiler must not exceed five percent opacity for more than three minutes in any one-hour period as determined in accordance with SWCAA Method 9 (See Appendix A of SWCAA 400).	5								
8.	Visible emissions from the Kelso High School and Barnes Elementary School Emergency Generator Engines must not exceed ten percent opacity for more than 3 minutes in any one-hour period as determined in accordance with SWCAA Method 9 (See Appendix A of SWCAA 400) except during startup. For the purposes of this requirement, the startup period ends when the earlier of the following operating events occurs: (a) The engine has reached normal operating temperature; or (b) The engine has been operating for 15 minutes.	6-7								

**Operating Limits and Requirements**

<b>Req. No.</b>	<b>Operating Limits and Requirements</b>	<b>Equipment/ Activity ID No.</b>
9.	Reasonable precautions must be taken at all times to prevent and minimize fugitive emissions from plant operations.	Facility-wide
10.	The permittee must use recognized good practice and procedures to reduce odors to a reasonable minimum.	Facility-wide
11.	Each pollution control device/measure must be in use whenever the associated production equipment is in operation. Control devices must be operated and maintained in accordance with the manufacturer's specifications and operated in a manner that minimizes emissions.	1-7
12.	Emission units identified in this Permit must be maintained and operated in total and continuous conformity with the conditions identified in this Permit. SWCAA reserves the right to take any and all appropriate action to maintain the conditions of this Permit, including directing the facility to cease operations until corrective action can be completed.	1-7
13.	Corrective action must be taken within 3 business days if emission monitoring results for the emission units listed in Condition 22 of this Permit indicate emission concentrations in excess of permitted emission limits. Corrective action includes, but is not limited to, service by maintenance personnel or retesting for each pollutant of concern using a reference test method. Emission monitoring of affected units must be conducted following completion of any corrective action to confirm that the corrective action has been effective. Corrective action must be pursued until observed emission concentrations no longer exceed permitted emission limits.	1-4
14.	The Rose Valley Elementary School Boiler, Kelso High School Emergency Generator Engine, and the Barnes Elementary School Emergency Generator Engine must only be fired on #2 diesel or better. The sulfur content of the fuel fired in the diesel engines must not exceed 0.0015% by weight (15 ppm). A fuel certification from the fuel supplier may be used to demonstrate compliance with this requirement.	5-7
15.	Operation of the Kelso High School Emergency Generator Engine and the Barnes Elementary School Emergency Generator Engine must be limited to maintenance checks, readiness testing, and as necessary to provide emergency power.	6-7
16.	Operation of the Kelso High School Emergency Generator Engine and the Barnes Elementary School Emergency Generator Engine for maintenance checks and readiness testing must not exceed 100 hours per year each. Emergency operation of the emergency engines is not limited. A nonresettable time totalizer must be installed on each engine and used to measure hours of operation.	6-7

**Monitoring and Recordkeeping Requirements**

<b>Req. No.</b>	<b>Monitoring and Recordkeeping Requirements</b>	<b>Equipment/ Activity ID No.</b>
17.	All air quality related complaints, including odor complaints, received by the permittee and the results of any subsequent investigation or corrective action must be recorded for each occurrence.	Facility-wide
18.	With the exception of data logged by a computerized data acquisition system, each record required by this Air Discharge Permit must include the date and the name of the person making the record entry.	Facility-wide
19.	All records required by this Permit must be kept for a minimum period of no less than three years and must be maintained in a form readily available for inspection by SWCAA representatives.	Facility-wide
20.	Excess emissions and upset conditions must be recorded for each occurrence.	1-7
21.	<p>The following information must be collected, recorded at the intervals specified below, and made readily available on-site for inspection:</p> <p>(a) Quantity of fuel consumed by natural gas fired equipment at each school Recorded monthly</p> <p>(b) Hours of operation for each emergency generator engine Recorded annually</p> <p>(c) Quantity of diesel consumed by the Rose Valley Elementary School Boiler Recorded annually</p> <p>(d) Fuel sulfur content of fuel burned in each Emergency Generator Engine and the Rose Valley Elementary School Boiler Recorded for each fuel delivery. A fuel supplier certification may be used in lieu of actual fuel testing.</p> <p>(e) Maintenance activities that may affect emissions Recorded for each occurrence</p> <p>(f) All air quality related complaints, including odor complaints, received by the permittee and the results of any subsequent investigation or corrective action Recorded for each occurrence</p>	1-7

**Emission Monitoring and Testing Requirements**

<b>Req. No.</b>	<b>Emission Monitoring and Testing Requirements</b>	<b>Equipment/ Activity ID No.</b>										
22.	The permittee must conduct initial and periodic emission monitoring of the equipment listed below as described in Appendix A of this Permit.  <table border="0"> <tr> <td><u>School</u></td> <td><u>Equipment to be Monitored</u></td> </tr> <tr> <td>Kelso High School</td> <td>Boilers B-1 through B-7, B-9 through B-12, B-15, and B-16</td> </tr> <tr> <td>Huntington Middle School</td> <td>Boilers 1 and 2</td> </tr> <tr> <td>Coweeman Elem School</td> <td>Boiler 1</td> </tr> <tr> <td>Barnes Elem School</td> <td>Boiler 1</td> </tr> </table>	<u>School</u>	<u>Equipment to be Monitored</u>	Kelso High School	Boilers B-1 through B-7, B-9 through B-12, B-15, and B-16	Huntington Middle School	Boilers 1 and 2	Coweeman Elem School	Boiler 1	Barnes Elem School	Boiler 1	1-4
<u>School</u>	<u>Equipment to be Monitored</u>											
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Huntington Middle School	Boilers 1 and 2											
Coweeman Elem School	Boiler 1											
Barnes Elem School	Boiler 1											

**Reporting Requirements**

<b>Req. No.</b>	<b>Reporting Requirements</b>	<b>Equipment/ Activity ID No.</b>
23.	All air quality related complaints received by the permittee must be reported to SWCAA within three days of receipt. Complaint reports must include the following information: (a) Date and time of the complaint; (b) Name of the complainant; (c) Nature of the complaint; and (d) Description of corrective action taken in response to complaint (if any).	Facility-wide
24.	Excess emissions must be reported to SWCAA as follows: (a) As soon as possible, but no later than 12 hours after discovery for emissions that represent a potential threat to human health or safety; (b) As soon as possible, but no later than 48 hours after discovery for emissions which the permittee wishes to claim as unavoidable pursuant to SWCAA 400-107; and (c) No later than 30 days after the end of the month of discovery for all other excess emissions.	Facility-wide
25.	Emission monitoring results must be reported to SWCAA in writing within 15 days of completion.	1-4
26.	The following emission-related information must be reported to SWCAA by March 15 <sup>th</sup> for the previous calendar year: (a) Quantity of fuel consumed by natural gas fired equipment at each school; (b) Hours of operation for each emergency generator engine; (c) Quantity of diesel consumed by the Rose Valley Elementary School Boiler; and (d) Air emissions of criteria air pollutants, volatile organic compounds, toxic air pollutants (TAPs), and hazardous air pollutants (HAPs).	1-7



**3. General Provisions**

<b>Req. No.</b>	<b>General Provisions</b>
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 invalidated, in whole or in part, 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 without prior SWCAA approval, 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.

## **Appendix A**

### **Emission Monitoring Requirements**

### **Boilers and Water Heaters**

#### **1. Introduction:**

The purpose of periodically monitoring boiler and water heater exhaust is to minimize emissions and provide a reasonable assurance of proper operation. Periodic monitoring may be conducted with an electrochemical cell combustion analyzer, analyzers used for reference method testing, or other analyzers pre-approved by SWCAA.

#### **2. Monitoring Procedure:**

- a. Monitoring of exhaust gases to determine emission concentrations of the constituents listed below must be conducted no later than the end of January of each calendar year.

##### Constituents to be Measured

CO  
NO<sub>x</sub>  
O<sub>2</sub>

- b. Source operation during testing must be representative of maximum intended operating conditions during that year.

#### **3. Minimum Quality Assurance/Quality Control Measures:**

- a. The analyzer(s) response to span gas of a known concentration must be determined before and after testing. No more than 12 hours may elapse between span gas response checks. The results of the analyzer response must not be valid if the difference between the pre and post response check results vary by more than 10% of the initial span gas value.
- b. Span gas concentrations must be no less than 50% and no more than 200% of the emission concentration of the corresponding permitted emission limit. A lower concentration span gas may be used if it is more representative of actual measured concentrations. Ambient air may be used to zero the CO and NO<sub>x</sub> cells/analyzer(s) and span the oxygen cell/analyzer.
- c. Sampling must consist of at least 1 test consisting of at least 5 minutes of data collection. Data must not be collected until after analyzer readings have stabilized (less than 5% per minute change in emission concentration). Emission concentrations must be recorded at least once every 30 seconds during the data collection phase for a minimum of 10 readings. All test data collected following the ramp-up phase(s) must be reported to SWCAA in the designated format.

**Appendix A**  
**Emission Monitoring Requirements**  
**Boilers and Water Heaters**

**4. Reporting:**

- a. All monitoring results must be recorded at the facility and reported to SWCAA in writing in a format designated by the Agency. Results must be reported within 15 calendar days of monitoring completion. At a minimum, the following information must be included in the report:
- (1) Time and date of the performance monitoring;
  - (2) Identification of the personnel involved;
  - (3) Identification of the affected unit;
  - (4) A summary of results (NO<sub>x</sub>, CO, O<sub>2</sub>, etc), reported in units consistent with the applicable emission standard or limit;
  - (5) A summary of equipment operating conditions (e.g., firing rate, fuel flow, stack temperature, etc);
  - (6) A description of the evaluation methods or procedures used including all field data, quality assurance/quality control procedures and documentation;
  - (7) Copies of span gas documentation; and
  - (8) Analyzer response check documentation.

The SWCAA Combustion Equipment Monitoring Data Sheet spreadsheet is available at <http://www.swcleanair.gov/forms/misc.asp>.

- b. Individual monitoring results must be reported as read. Final average monitoring results must be reported corrected to 3% O<sub>2</sub> and adjusted to reflect analyzer response to the zero and span gases (bias/drift adjustment).

**5. Changes to Monitoring Requirements:**

Emission monitoring 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 monitoring schedule. Upon review of the request and in accordance with EPA delegation, SWCAA will inform the Permittee in writing of any approved modifications.