TECHNICAL SUPPORT DOCUMENT

Air Discharge Permit ADP 25-3711
Air Discharge Permit Application L-751

Issued: May 28, 2025

Centralia School District #401

SWCAA ID - 278

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Southwest Clean Air Agency

TABLE OF CONTENTS

ABBREVIATIONS

List of Acronyms

ADP	Air Discharge Permit
AP-42	Compilation of Emission Factors, AP-42, 5th Edition, Volume 1, Stationary Point and Area Sources – published by EPA
ASIL	Acceptable Source Impact Level
BACT	Best available control technology
CAS#	Chemical Abstracts Service registry number
CFR	Code of Federal Regulations
EPA	U.S. Environmental Protection Agency
EU	Emission Unit
NESHAP	National Emission Standards for Hazardous Air Pollutants
NOV	Notice of Violation/
NSPS	New Source Performance Standard
PSD	Prevention of Significant Deterioration
RCW	Revised Code of Washington
SCC	Source Classification Code
SDS	Safety Data Sheet
SQER	Small Quantity Emission Rate listed in WAC 173-460
Standard	Standard conditions at a temperature of 68°F (20°C) and a pressure of 29.92 in Hg (760 mm Hg)
SWCAA	Southwest Clean Air Agency
T-BACT	Best Available Control Technology for toxic air pollutants
WAC	Washington Administrative Code

List of Units and Measures

acfm	Actual cubic foot per minute
bhp	Brake horsepower
gpm	Gallon per minute
gr/dscf	Grain per dry standard cubic foot
hp	Horsepower
hp-hr	Horsepower-hour
kW	Kilowatt
MMBtu	Million British thermal unit
ppm	Parts per million
ppmv	Parts per million by volume
ppmvd	Parts per million by volume, dry
ppmw	Parts per million by weight
rpm	Revolution per minute
tph	Ton per hour
tpy	Tons per year

List of Chemical Symbols, Formulas, and Pollutants

CO	Carbon monoxide
CO_2	Carbon dioxide
CO_2e	Carbon dioxide equivalent
HAP	Hazardous air pollutant listed pursuant to Section 112 of the Federal Clean Air Act
NO_2	Nitrogen dioxide
NO_x	Nitrogen oxides
O_2	Oxygen
PM	Particulate Matter with an aerodynamic diameter 100 µm or less
PM_{10}	PM with an aerodynamic diameter 10 µm or less
$PM_{2.5}$	PM with an aerodynamic diameter 2.5 µm or less
SO_2	Sulfur dioxide
SO_x	Sulfur oxides
TAP	Toxic air pollutant pursuant to Chapter 173-460 WAC
VOC	Volatile organic compound

Terms not otherwise defined have the meaning assigned to them in the referenced regulations or the dictionary definition, as appropriate.

1. FACILITY IDENTIFICATION

Applicant Name:	Centralia School District #401
Applicant Address:	123 South Gold Street, Centralia, WA 98531
Facility Name/Address:	Centralia High School 813 Eshom Road, Centralia Centralia Middle School 901 Johnson Road, Centralia
SWCAA Identification:	278
Contact Person:	Carli Byrer, Facilities and Maintenance Dept
Primary Process:	Elementary and Secondary Schools
SIC/NAICS Code:	8211 / Elementary and Secondary Schools 61111 / Elementary and Secondary Schools
Facility Latitude and Longitude	46° 43' 33.93" N 122° 58' 58.18" W
Facility Classification:	Natural Minor

2. FACILITY DESCRIPTION

Centralia School District #401 (Centralia) is the primary public education provider for Centralia, Washington. This permitting action is for replacement of equipment as described in Section 3 below.

3. CURRENT PERMITTING ACTION

This permitting action is in response to Air Discharge Permit application number L-751 (ADP Application L-751) dated May 1, 2025. Centralia submitted ADP Application L-751 requesting approval of the following:

- Installation of an emergency diesel engine powered generator at Centralia High School; and
- Replacement of (2) existing hot water heaters at Centralia Middle School.

The current permitting action provides approval for installation of new equipment as proposed in ADP Application L-751 and consolidation of existing approvals. ADP 25-3711 will supersede the following orders/approvals in their entirety:

- ADP 10-2943
- SUN 278
- SUN 221
- SUN 220
- SUN 219
- SUN 218
- SUN 065
- SUN 064

4. PROCESS DESCRIPTION

4.a. Space Heating (*existing*). Package boilers and heaters are used to provide hot water to hydronic heating systems at associated school campuses. Boilers and heaters typically operate less than half of the year.

4.b. Domestic Hot Water (*existing*). Package hot water heaters are used to provide domestic hot water at associated school campuses.

4.c. Emergency Power Generation (*existing*). A diesel engine driven generator is used to generate emergency electrical power at the high school campus.

5. EQUIPMENT/ACTIVITY IDENTIFICATION

5.a. Block House (*existing*). Location: TBD
The following emission units are installed at the Middle School Block House:

Unit	Make	Model	Serial #	Rating
Hot Water 1	AO Smith	BC420	--	0.420 MMBtu/hr
Hot Water 2	AO Smith	BC420	--	0.420 MMBtu/hr

5.b. Centralia High School (*modified*). Location: 46°43'34.85"N 123°0'10.61"W
The following emission units are installed at Centralia High School:

Unit	Make	Model	Serial #	Rating
HWT 1	AO Smith	BTH-199(A)	1826110945053	0.199 MMBtu/hr
HWT 2	AO Smith	BTH-400(A)	1845112518461	0.3999 MMBtu/hr
HWT 3	AO Smith	BTH-250(A)	1904113493013	0.250 MMBtu/hr
HWT 4 (*SUN-278*)	AO Smith	BTH-500(A) *(Low NOx)*	1908113782733	0.500 MMBtu/hr
Emergency Generator Engine (*new*)	Cummins	QSL9-G2	--	364 bhp

ADP Application L-751. Centralia is installing a new emergency diesel engine powered generator at the Centralia High School campus. No other changes are proposed at this location.

5.c. Centralia Middle School (*modified*). Location: 46°43'33.50"N 122°58'57.93"W
The following emission units are installed at Centralia Middle School:

Unit	Make	Model	Serial #	Rating
Boiler 1 (*ADP 10-2943*)	Cleaver Brooks	CFC 1500 *(Low NOx)*	16010150110003	1.5 MMBtu/hr
Boiler 2 (*ADP 10-2943*)	Cleaver Brooks	CFC 1500 *(Low NOx)*	16010150110001	1.5 MMBtu/hr
Hot Water 1	AO Smith	BTR 365A 118	1138M001963	0.365 MMBtu/hr
Hot Water 2 (*new*)	AO Smith	BTR 500A 130	2328134872279	0.500 MMBtu/hr
Hot Water 3 (*new*)	AO Smith	BTR 500A 130	2247131838783	0.500 MMBtu/hr

The following insignificant emission units are installed at Centralia Middle School:

- One natural gas fired ceramic kiln.
- A metal foundry area vented to ambient through roof.
- Five instructional welding stations exhausted to ambient air through roof.
- Wood Shop exhausted via Torit cyclone to ambient air.
- Wood finishing room exhausted to ambient air.

ADP Application L-751. Centralia is replacing two existing water heaters (AO Smith BT-500A 830) with two new water heaters of similar design and capacity (AO Smith BTR-500A 130).

5.d. Centralia Pool (*existing*). Location: 46°43'35.43"N 122°58'52.49"W
The following emission units are installed at the Centralia Pool:

Unit	Make	Model	Serial #	Rating
Boiler 1 (*SUN-065*)	Cleaver Brooks	CFC 1500 *(Low NOx)*	16010150110165	1.5 MMBtu/hr
Boiler 2 (*SUN-064*)	Cleaver Brooks	CFC 1500 *(Low NOx)*	16010150110166	1.5 MMBtu/hr

5.e. Edison Elementary School (*existing*). Location: 46°43'18.59"N 122°57'34.24"W
The following emission units are installed at Edison Elementary School:

Unit	Make	Model	Serial #	Rating
Boiler 1 (*ADP 10-2943*)	Cleaver Brooks	CFC 700-1000-60 HW *(Low NOx)*	16010100010020	1.0 MMBtu/hr
Boiler 2 (*ADP 10-2943*)	Cleaver Brooks	CFC 700-1000-60 HW *(Low NOx)*	16010100010019	1.0 MMBtu/hr

5.f. Fords Prairie Elementary School (*existing*). Location: 46°44'04.34"N 122°59'12.90"W
The following emission units are installed at Fords Prairie Elementary School:

Unit	Make	Model	Serial #	Rating
Boiler 1 (*SUN-219*)	Lochinvar	FBN150 *(Low NOx)*	1824 110749504	1.5 MMBtu/hr
Boiler 2 (*SUN-218*)	Lochinvar	FBN1501 *(Low NOx)*	1828 111047565	1.5 MMBtu/hr
Hot Water 1	AO Smith	Mxi BTH-199	1831111438326	0.1999 MMBtu/hr
Hot Water 2	AO Smith	Mxi BTH-199	1831111438324	0.1999 MMBtu/hr

5.g. Jefferson-Lincoln Elementary School (*existing*). Location: 46°42'21.42"N 122°57'45.95"W
The following emission units are installed at Jefferson-Lincoln Elementary School:

Unit	Make	Model	Serial #	Rating
Boiler 1 (*SUN-221*)	Lochinvar	FBN1501 *(Low NOx)*	1828 111047566	1.5 MMBtu/hr
Boiler 2 (*SUN-220*)	Lochinvar	FBN1501 *(Low NOx)*	1824 110749509	1.5 MMBtu/hr
Hot Water 1 (*ADP 10-2943*)	AO Smith	Mxi BTH-199	1831111438352	0.199 MMBtu/hr
Hot Water 2	AO Smith	Mxi BTH-199	1831111438327	0.199 MMBtu/hr

5.h. Logan Elementary School (*existing*). Location: 46°43'53.93"N 122°56'31.62"W
The following emission units are installed at Logan School:

Unit	Make	Model	Serial #	Rating
Furnace (*ADP 10-2943*)	Trane	T0140A960K2	N224SN1G	0.140 MMBtu/hr

5.i. Maintenance Department (*existing*). Location: 46°42'54.71"N 122°57'09.49"W
The following emission units are installed at the Maintenance Department:

Unit	Make	Model	Serial #	Rating
Furnace	Reznor	EEXL225		0.175 MMBtu/hr
Furnace	Reznor	UDAP22520		0.250 MMBtu/hr
Furnace	Hastings	GB-100Y		0.100 MMBtu/hr
Furnace	Janitrol	2300		0.230 MMBtu/hr
Furnace	Trane	XR-90		0.090 MMBtu/hr

5.j. Transportation Co-Op (*existing*). Location: 46°42'48.95"N 122°58'13.35"W
The following emission units are installed at the Transportation Co-Op:

Unit	Make	Model	Serial #	Rating
Air Heater (*ADP 10-2943*)	Trane		B81503870	5.5 MMBtu/hr
Air Heater (*ADP 10-2943*)	Trane		B81J03869	1.1 MMBtu/hr
Hot Water	AO Smith			0.0751 MMBtu/hr
Gasoline Tank (*ADP 10-2943*)		Underground, submerged fill		12,000 gal

The following insignificant emission units are installed at the Transportation Co-Op:

- One abrasive blasting box vented to atmosphere.

5.k. Equipment/Activity Summary.

ID No.	Equipment/Activity	Control Equipment/Measure
1	Block House (2 Water Heaters)	Low Sulfur Fuel (Nat gas)
2	Centralia High School (4 Water Heaters, Diesel Engine Generator)	Low Sulfur Fuel (Nat Gas), Ultra-low Sulfur Diesel (≤0.0015% by wt), Emergency Tier 3
3	Centralia Middle School (2 Boilers, 3 Water Heaters)	Low Sulfur Fuel (Nat Gas) Low Emission Burners (Boilers)
4	Centralia Pool (2 Boilers)	Low Sulfur Fuel (Nat Gas) Low Emission Burners
5	Edison Elementary School (2 Boilers)	Low Sulfur Fuel (Nat Gas) Low Emission Burners
5	Fords Prairie Elementary School (2 Boilers, 2 Water Heaters)	Low Sulfur Fuel (Nat Gas) Low Emission Burners (Boilers)
6	Jefferson-Lincoln Elementary School (2 Boilers, 2 Water Heaters)	Low Sulfur Fuel (Nat Gas) Low Emission Burners (Boilers)
7	Logan Elementary School (1 Furnace)	Low Sulfur Fuel (Nat Gas)
8	Maintenance Department (5 Furnaces)	Low Sulfur Fuel (Nat Gas)
9	Transportation Co-Op (2 Air Heaters, 1 Water Heater, 1 Gasoline Storage Tank)	Low Sulfur Fuel (Nat Gas), Submerged Fill

6. EMISSIONS DETERMINATION

Emissions to the ambient atmosphere from new and existing equipment proposed in ADP Application L-751 consist of nitrogen oxides (NO_x), carbon monoxide (CO), volatile organic compounds (VOC), particulate matter (PM), sulfur dioxide (SO_2), toxic air pollutants (TAPs), and hazardous air pollutants (HAPs).

Unless otherwise specified by SWCAA, actual emissions must be determined using the specified input parameter listed for each emission unit and the following hierarchy of methodologies:

(a) Continuous emissions monitoring system (CEMS) data;
(b) Source emissions test data (EPA reference method). When source emissions test data conflicts with CEMS data for the time period of a source test, source test data must be used;
(c) Source emissions test data (other test method); and
(d) Emission factors or methodology provided in this TSD.

6.a. Low Emission Natural Gas Equipment (*modified*). Potential emissions from low emission natural gas fired equipment are calculated from a combined heat input of 14.0 MMBtu/hr, 4,380 hr/yr (50% capacity), and applicable emission factors. Emission factors for NO_X and CO correspond to 30 ppmv and 50 ppmv at 3% O_2, respectively. All other emission factors are taken from EPA AP-42 §1.4 "Natural Gas Combustion" (3/98). All PM is assumed to be $PM_{2.5}$. Annual emissions will be calculated based on actual fuel consumption using the same methodology.

Heat Input Rating =	14.000	MMBtu/hr		
Fuel Consumption =	61,320	MMBtu/yr		
	Emission Factor		Emissions	
Pollutant	(lb/MMBtu)	(lb/hr)	(lb/yr)	(tpy)
NO_X	0.0364	0.51	2,232	1.12
CO	0.0370	0.52	2,269	1.13
VOC	0.0054	0.08	331	0.17
SO_X as SO_2	5.88E-04	8.2E-03	36	0.018
PM/PM_{10}	0.0075	0.10	457	0.23
$PM_{2.5}$	0.0075	0.10	457	0.23
Benzene	2.06E-06	2.9E-05	1.3E-01	6.3E-05
Formaldehyde	7.35E-05	1.0E-03	4.5E+00	2.3E-03
CO_2e	117	1638.0	7,174,440	3,587

6.b. Conventional Natural Gas Equipment (*modified*). Potential emissions from conventional natural gas fired equipment are calculated from a combined heat input of 12.01 MMBtu/hr, 4,380 hr/yr (50% capacity), and emission factors from EPA AP-42 §1.4 "Natural Gas Combustion" (3/98). All PM is assumed to be $PM_{2.5}$. Annual emissions will be calculated based on actual fuel consumption using the same methodology.

Heat Input Rating =	12.010	MMBtu/hr		
Fuel Consumption =	52,604	MMBtu/yr		
	Emission		Emissions	
Pollutant	(lb/MMBtu)	(lb/hr)	(lb/yr)	(tpy)
NO_X	0.0980	1.18	5,155	2.58
CO	0.0820	0.98	4,314	2.16
VOC	0.0054	0.06	284	0.14
SO_X as SO_2	5.88E-04	7.1E-03	31	0.015
PM/PM_{10}	0.0075	0.09	392	0.20
$PM_{2.5}$	0.0075	0.09	392	0.20
Benzene	2.06E-06	2.5E-05	1.1E-01	5.4E-05
Formaldehyde	7.35E-05	8.8E-04	3.9E+00	1.9E-03
CO_2e	117	1405.2	6,154,645	3,077

6.c. Diesel Engine – Centralia High School (*new*). Potential emissions from emergency engine operation are calculated based on 100 hours per year of operation at full rated load, the use of ultra-low sulfur diesel (<0.0015% sulfur by weight), and a maximum fuel rate of 18.2 gallons per hour. Sulfur oxide emissions are estimated using mass balance methodology, assuming all fuel sulfur is converted to sulfur dioxide. Annual emissions will be calculated from actual hours of operation using the emission factors identified below.

Hours of Operation =	100	hours
Power Output =	364	horsepower
Fuel Sulfur Content =	0.0015	% by weight
Fuel Consumption Rate =	18.20	gal/hr
Fuel Heat Content =	0.138	MMBtu/gal (40 CFR 98)

Pollutant	EF lb/hr	Emissions tpy	EF Source
NO_X	2.15	0.11	EPA Certification
CO	1.38	0.069	EPA Certification
VOC	0.13	0.0065	EPA Certification
SO_X as SO_2	0.0039	0.00020	Mass Balance
PM/PM_{10}	0.06	0.0030	EPA Certification
$PM_{2.5}$	0.06	0.0030	EPA Certification
DPM		0.0030	DPM = PM

Greenhouse Gases	kg/MMBtu	GWP	CO_2e lb/MMBtu	CO_2e lb/gallon	tpy, CO_2e	
CO_2	73.96	1	163.05	22.501	20	40 CFR 98
CH_4	0.003	25	0.165	0.023	0.0	40 CFR 98
N_2O	0.0006	298	0.394	0.054	0.0	40 CFR 98
Total GHG - CO_2e	73.9636		163.61	22.58	20.5	

6.d. Emissions Summary/Facility-wide Potential to Emit. Facility-wide potential to emit as calculated in the sections above is summarized below.

Pollutant	Potential Emissions (tpy)	Project Increase (tpy)
NO_X	3.69	0.11
CO	3.29	0.069
VOC	0.31	0.0065
SO_2	0.034	0.00020
Lead	0.00	0.00
PM	0.43	0.0030
PM_{10}	0.43	0.0030
$PM_{2.5}$	0.43	0.0030
TAP	0.0043	0.0030
HAP	0.0043	0.0030
CO_2e	6,684.5	20.5

Pollutant	CAS Number	Category	Facility-wide Emissions (lb/yr)	Project Increase (lb/yr)	WAC 173-460 SQER (lb/yr)
Benzene	71-43-2	HAP/TAP	0.23	0.0	20
Diesel Exhaust Particulate	--	TAP	6.0	6.0	0.54
Formaldehyde	50-00-0	HAP/TAP	8.4	0.0	20

7. REGULATIONS AND EMISSION STANDARDS

Regulations that have been used to evaluate the acceptability of the proposed facility and establish emission limits and control requirements include, but are not limited to, the regulations, codes, or requirements listed below.

7.a. Title 40 Code of Federal Regulations Part 60 (40 CFR 60) Subpart IIII "Standards of Performance for Stationary Compression Ignition Internal Combustion Engines" applies to each compression ignition (CI) internal combustion engine (ICE) that commences construction after July 11, 2005 and is manufactured after April 1, 2006, or that is modified or reconstructed after July 11, 2005. This regulation is applicable to the emergency generator's power unit.

7.b. 40 CFR 63 Subpart ZZZZ "National Emissions Standards for Hazardous Air Pollutants (NESHAP) for Stationary Reciprocating Internal Combustion Engines" establishes national emission limitations and operating limitations for HAP emitted from stationary reciprocating internal combustion engines (RICE) located at major and area sources of HAP emissions. This regulation is applicable to the emergency generator's power unit. Pursuant to 40 CFR 63.6590(c), the unit complies with this regulation by complying with 40 CFR 60 Subpart IIII.

7.c. 40 CFR 63 Subpart DDDDD "National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters" applies to new, reconstructed, and existing any Industrial, Commercial, and Institutional Boiler and Process Heater located at a major source of hazardous air pollutants. This facility is not a major source so this regulation is not applicable.

7.d. 40 CFR 63 Subpart JJJJJJ "National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers Area Sources" establishes performance standards and requirements for industrial, commercial and institutional boilers operating at an area source of hazardous air pollutants. The boilers at this facility are "gas-fired boilers" and not subject to Subpart JJJJJJ.

7.e. Revised Code of Washington (RCW) 70A.15.2040 empowers any activated air pollution control authority to prepare and develop a comprehensive plan or plans for the prevention, abatement and control of air pollution within its jurisdiction. An air pollution control authority may issue such orders as may be necessary to effectuate the purposes of the Washington Clean Air Act and enforce the same by all appropriate administrative and judicial proceedings subject to the rights of appeal as provided in Chapter 62, Laws of 1970 ex. sess.

7.f. RCW 70A.15.2210 provides for the inclusion of conditions of operation as are reasonably necessary to assure the maintenance of compliance with the applicable ordinances, resolutions, rules and regulations when issuing an Air Discharge Permit for installation and establishment of an air contaminant source.

7.g. Washington Administrative Code (WAC) 173-460 "Controls for New Sources of Toxic Air Pollutants" requires Best Available Control Technology for toxic air pollutants (T-BACT), identification and quantification of emissions of toxic air pollutants and demonstration of protection of human health and safety.

7.h. WAC 173-476 "Ambient Air Quality Standards" establishes ambient air quality standards for PM_{10}, $PM_{2.5}$, lead, sulfur dioxide, nitrogen dioxide, ozone, and carbon monoxide in the ambient air, which shall not be exceeded.

7.i. SWCAA 400-040 "General Standards for Maximum Emissions" requires all new and existing sources and emission units to meet certain performance standards with respect to Reasonably Available Control Technology (RACT), visible emissions, fallout, fugitive emissions, odors, emissions detrimental to persons or property, sulfur dioxide, concealment and masking, and fugitive dust.

7.j. SWCAA 400-050 "Emission Standards for Combustion and Incineration Units" requires that all provisions of SWCAA 400-040 be met and that no person shall cause or permit the emission of particulate matter from any combustion or incineration unit in excess of 0.23 grams per dry cubic meter (0.1 grains per dry standard cubic foot) of exhaust gas at standard conditions.

7.k. SWCAA 400-060 "Emission Standards for General Process Units" prohibits particulate matter emissions from all new and existing process units in excess of 0.1 grains per dry standard cubic foot of exhaust gas.

7.l. SWCAA 400-109 "Air Discharge Permit Applications" requires that an Air Discharge Permit application be submitted for all new installations, modifications, changes, or alterations to process and emission control equipment consistent with the definition of "new source". Sources wishing to modify existing permit terms may submit an Air Discharge Permit application to request such changes. An Air Discharge Permit must be issued, or written confirmation of exempt status must be received, before beginning any actual construction, or implementing any other modification, change, or alteration of existing equipment, processes, or permits.

7.m. SWCAA 400-110 "New Source Review" requires that SWCAA issue an Air Discharge Permit in response to an Air Discharge Permit application prior to establishment of the new source, emission unit, or modification.

7.n. SWCAA 400-113 "Requirements for New Sources in Attainment or Nonclassifiable Areas" requires that no approval to construct or alter an air contaminant source shall be granted unless it is evidenced that:

(1) The equipment or technology is designed and will be installed to operate without causing a violation of the applicable emission standards;
(2) Best Available Control Technology will be employed for all air contaminants to be emitted by the proposed equipment;
(3) The proposed equipment will not cause any ambient air quality standard to be exceeded; and
(4) If the proposed equipment or facility will emit any toxic air pollutant regulated under WAC 173-460, the proposed equipment and control measures will meet all the requirements of that Chapter.

8. RACT/BACT/BART/LAER/PSD/CAM DETERMINATIONS

The proposed equipment and control systems incorporate Best Available Control Technology (BACT) for the types and amounts of air contaminants emitted by the processes as described below:

New BACT Determinations

8.a. BACT Determination – Water Heaters. The proposed use of low sulfur fuel (natural gas) and proper combustion controls has been determined to meet the requirements of BACT for the new water heaters at Centralia Middle School.

8.b. BACT Determination – Emergency Generator. The proposed use of a modern diesel engine design (EPA Tier 3), limited hours of operation (testing, maintenance, and emergency use only), and ultra-low sulfur distillate fuel (less than 0.0015% sulfur by weight) has been determined to meet the requirements of BACT for the new emergency generator at Centralia High School.

Previous BACT Determinations

8.c. BACT Determination – Hot Water Boilers (*ADP 10-2943*). The proposed use of low sulfur fuel (natural gas), low emission burner technology, annual emission monitoring, and proper combustion controls has been determined to meet the requirements of BACT for the boilers proposed for installation at Centralia Middle School, Edison Elementary School, and Jefferson-Lincoln Elementary School.

Other Determinations

8.d. Prevention of Significant Deterioration (PSD) Applicability Determination. The potential to emit of this facility is less than applicable PSD applicability thresholds. Likewise, this permitting action will not result in a potential increase in emissions equal to or greater than the PSD thresholds. Therefore, PSD review is not applicable to this action.

8.e. Compliance Assurance Monitoring (CAM) Applicability Determination. CAM is not applicable to any emission unit at this facility because it is not a major source and is not required to obtain a Part 70 permit.

9. AMBIENT IMPACT ANALYSIS

9.a. Criteria Air Pollutant Review. Criteria pollutant emissions from approved operations are not expected to cause an adverse impact on ambient air quality.

9.b. TAP Small Quantity Review. The incremental increases in TAP emissions associated with this permitting action are quantified in Section 6 of this Technical Support Document. The incremental increase in potential emissions of diesel exhaust particulate exceed the applicable small quantity emission rate (SQER) identified in WAC 173-460.

9.c. TAP Ambient Impact Analysis – Diesel Exhaust Particulate. Emissions of diesel exhaust particulate were modeled using the AERSCREEN dispersion model (ver 16216). The results of the model indicate that the project will not cause an incremental increase in ambient concentrations greater than the applicable acceptable source impact level (ASIL) identified in WAC 173-460.

Toxic Compound	CAS #	Incremental Ambient Impact ($\mu g/m^3$)	Acceptable Source Impact Level ($\mu g/m^3$)
Diesel Exhaust Particulate	--	0.0012 (Annual)	0.0033 (Annual)

Conclusions

9.d. Installation of new equipment, as proposed in ADP Application L-751, will not cause the ambient air quality requirements of Title 40 Code of Federal Regulations (CFR) Part 50 "National Primary and Secondary Ambient Air Quality Standards" to be violated.

9.e. Installation of new equipment, as proposed in ADP Application L-751, will not cause the requirements of WAC 173-460 "Controls for New Sources of Toxic Air Pollutants" or WAC 173-476 "Ambient Air Quality Standards" to be violated.

9.f. Installation of new equipment, as proposed in ADP Application L-751, will not cause a violation of emission standards for sources as established under SWCAA General Regulations Sections 400-040 "General Standards for Maximum Emissions," 400-050 "Emission Standards for Combustion and Incineration Units," and 400-060 "Emission Standards for General Process Units."

10. DISCUSSION OF APPROVAL CONDITIONS

SWCAA has made a determination to issue ADP 25-3711 in response to ADP Application L-751. ADP 25-3711 contains approval requirements deemed necessary to assure compliance with applicable regulations and emission standards as discussed below.

10.a. Supersession of Previous Permits. ADP 25-3711 supersedes the following orders/approvals in their entirety:

- ADP 10-2943
- SUN 278
- SUN 221
- SUN 220
- SUN 219
- SUN 218
- SUN 065
- SUN 064

10.b. General Basis. Permit requirements for equipment affected by this permitting action incorporate the operating schemes proposed by the applicant in ADP Application L-751. Permit requirements established by this action are intended to implement BACT, minimize emissions, and assure compliance with applicable requirements on a continuous basis. Emission limits for approved equipment are based on the maximum potential emissions calculated in Section 6 of this Technical Support Document.

10.c. Monitoring and Recordkeeping Requirements. ADP 25-3711 establishes monitoring and recordkeeping requirements sufficient to document compliance with applicable emission limits, ensure proper operation of approved equipment and provide for compliance with generally applicable requirements. Specific monitoring requirements are established for fuel consumption and hours of operation.

10.d. Reporting Requirements. ADP 25-3711 establishes general reporting requirements for annual air emissions, upset conditions, and excess emissions. Specific reporting requirements are established for fuel consumption and hours of operation. Reports are to be submitted on an annual basis.

10.e. Boilers and Water Heaters. Annual emission limits for approved boilers and water heaters are established at the quantity of emissions anticipated from the operation of each unit for 4,380 hours per year (50% capacity) at full rated load using the emission factors supplied in Section 6. This capacity level is a conservative estimate of maximum actual operation. Units with low emission burners are required to take corrective action whenever performance monitoring indicates that short-term emission concentrations exceed 30 ppmvd NO_X @ 3% O_2 or 50 ppmvd CO @ 3% O_2. Performance monitoring was paired with appropriate corrective action to maintain these levels. Visible emissions from the natural gas-fired emission units were limited to 0% opacity.

10.f. Emergency Generator. Permit requirements for the diesel engine powered emergency generator are based on limited service (≤ 100 hr/yr testing and maintenance) and the use of ultra-low sulfur diesel (≤ 0.0015% S by weight). A visible emission limit of 5% opacity has been established consistent with proper operation of the diesel engine. Due to the technical limitations of the engine, the opacity limit does not apply during periods of start-up and shutdown. Annual operation will be monitored with an integral hourmeter and reported to SWCAA by the permittee.

10.g. Requirements for Unmodified Emission Units. Permit requirements for existing emission units not affected by ADP Application L-751 are carried forward unchanged from previous approvals.

11. START-UP AND SHUTDOWN/ALTERNATIVE OPERATING SCENARIOS/POLLUTION PREVENTION

11.a. Start-up and Shutdown Provisions. Pursuant to SWCAA 400-081 "Start-up and Shutdown", technology based emission standards and control technology determinations shall take into consideration the physical and operational ability of a source to comply with the applicable standards during start-up or shutdown. Where it is determined that a source is not capable of achieving continuous compliance with an emission standard during start-up or shutdown, SWCAA shall include appropriate emission limitations, operating parameters, or other criteria to regulate performance of the source during start-up or shutdown.

Emergency Engine. Visible emissions from the emergency generator diesel engine are limited to 5% opacity or less during normal operation. However, the engine is not capable of reliably limiting visible emissions to less than 5% opacity until the engine achieves normal operating temperature. Therefore, the 5% opacity limit does not apply to the generator exhaust during start-up periods.

11.b. Alternate Operating Scenarios. SWCAA conducted a review of alternate operating scenarios applicable to equipment affected by this permitting action. The permittee did not propose or identify any applicable alternate operating scenarios. Therefore, none were included in the permit requirements.

11.c. Pollution Prevention Measures. SWCAA conducted a review of possible pollution prevention measures for the facility. No pollution prevention measures were identified by either the permittee or SWCAA separate from those measures required under BACT considerations. Therefore, none were included in the permit requirements.

12. EMISSION MONITORING AND TESTING

12.a. Emission Monitoring. Emission monitoring of the equipment listed below is required on a continuing 12-month cycle for the purpose of assuring proper ongoing operation. All emission monitoring must be conducted in accordance with ADP 25-3711, Appendix A.

Facility	Emission Unit(s)
Centralia High School	Hot Water 4
Centralia Middle School	Boiler 1, Boiler 2
Centralia Pool	Boiler 1, Boiler 2
Edison Elementary School	Boiler 1, Boiler 2
Fords Prairie Elementary School	Boiler 1, Boiler 2
Jefferson-Lincoln Elementary School	Boiler 1, Boiler 2

13. FACILITY HISTORY

13.a. Previous Permitting Actions. SWCAA has previously issued the following Permits/Approvals for this facility:

Permit Number	Application Number	Date	Purpose
SUN-278	--	4/6/2022	Installation of AO Smith BTH-500A hot water boiler at Centralia High School.
SUN-221	--	12/18/2019	Installation of Lochinvar FBN 1501 hot water boiler at Jefferson-Lincoln Elementary School.
SUN-220	--	12/18/2019	Installation of Lochinvar FBN 1501 hot water boiler at Jefferson-Lincoln Elementary School.
SUN-219	--	12/18/2019	Installation of Lochinvar FBN 1501 hot water boiler at Fords Prairie Elementary School.
SUN-218	--	12/18/2019	Installation of Lochinvar FBN 1501 hot water boiler at Fords Prairie Elementary School.
SUN-065	--	8/13/2014	Installation of Cleaver Brooks CFC 1500 hot water boiler at Centralia Pool.
SUN-064	--	8/13/2014	Installation of Cleaver Brooks CFC 1500 hot water boiler at Centralia Pool.
10-2943	L-644	7/27/2010	Installation of replacement hot water boilers at Centralia Middle School, Edison Elementary School, and Jefferson-Lincoln Elementary School.
02-2435	L-503	11/13/2002	Installation of two replacement hot water boilers at Centralia Middle School. Superseded by ADP 10-2943.
85-774	L-134	3/7/1985	Installation of (1) 12,000 gallon and (1) 6,000 gallon underground gasoline storage tanks and Universal Equipment "glove box" type bead blaster at bus facility at Chestnut and Marsh streets (Transportation Co-Op). Superseded by ADP 10-2943.

13.b. Compliance History. A search of source records on file at SWCAA identified the following compliance issues during the past 5 years:

Date	NOV Number	Violation
2/26/2025	11396	Installation of two natural gas fired hot water heaters and an emergency generator without prior approval.
6/8/2023	10844	Failure to submit 2022 emissions inventory in violation of Air Discharge Permit10-2943.
4/7/2022	10581	Installation of a natural gas fired hot water heater without prior approval.

14. PUBLIC INVOLVEMENT OPPORTUNITY

14.a. Public Notice for ADP Application L-751. Public notice for ADP Application L-751 was published on the SWCAA internet website for a minimum of 15 days beginning on May 8, 2025.

14.b. Public/Applicant Comment for ADP Application L-751. SWCAA did not receive specific comments, a comment period request or any other inquiry from the public regarding this ADP application. Therefore, no public comment period was provided for this permitting action.

14.c. State Environmental Policy Act. This project is exempt from SEPA requirements pursuant to WAC 197-11-800(3) since it only involves repair and/or maintenance of existing structures, equipment or facilities, and will not involve material expansions or changes in use. SWCAA has made a Determination of SEPA Exempt (SWCAA 25-026) concurrent with issuance of ADP 25-3711.