

TECHNICAL SUPPORT DOCUMENT

Air Discharge Permit 24-3666 Air Discharge Permit Application CL-3274

Issued: October 30, 2024

Georgia-Pacific Consumer Operations LLC

SWCAA ID - 2538

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Air Quality Engineer I

Southwest Clean Air Agency

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ABBREVIATIONS

List of Acronyms

ADP Air Discharge Permit AP-42 Compilation of Emission Factors,	PSD Prevention of Significant Deterioration
AP-42, 5th Edition, Volume 1, Stationary Point and Area Sources –	RACTReasonably Available Control Technology
published by EPA	RCW Revised Code of Washington
ASIL Acceptable Source Impact Level	SQER Small Quantity Emission Rate listed
BACT Best available control technology	in WAC 173-460
BART Best Available Retrofit Technology	Standard Standard conditions at a temperature
CAM Compliance Assurance Monitoring	of 68°F (20°C) and a pressure of
CFR Code of Federal Regulations	29.92 in Hg (760 mm Hg)
EPA U.S. Environmental Protection	SWCAA Southwest Clean Air Agency
Agency	WAC Washington Administrative Code
LAER Lowest achievable emission rate	

List of Units and Measures

μ m Micrometer (10^{-6} meter)	MMscfMillion standard cubic feet
acfm Actual cubic foot per minute	ppmParts per million
kpph Kilo Pascal per hour	ppmvdParts per million by volume, dry
	tpyTons per year
MMBtu Million British thermal unit	

List of Chemical Symbols, Formulas, and Pollutants

CO Carbon monoxide	PMParticulate Matter with an
CO ₂ Carbon dioxide	aerodynamic diameter 100 μm or
CO ₂ e Carbon dioxide equivalent	less
HAP Hazardous air pollutant listed pursuant to Section 112 of the	PM ₁₀ PM with an aerodynamic diameter 10 μm or less
Federal Clean Air Act	PM _{2.5} PM with an aerodynamic diameter
Hg Mercury	2.5 μm or less
NO ₂ Nitrogen dioxide	SO ₂ Sulfur dioxide
NO _x	SO _x Sulfur oxides
O ₂ Oxygen	TAPToxic air pollutant pursuant to Chapter 173-460 WAC
O ₃ Ozone	VOCVolatile 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: Georgia-Pacific Consumer Operations LLC Applicant Address: 401 NE Adams Street, Camas, WA 98607

Facility Name: Georgia-Pacific Consumer Operations LLC Facility Address: 401 NE Adams Street, Camas, WA 98607

SWCAA Identification: 2538

Contact Person: Spencer Giles – Environmental Manager

Primary Process: Non-Integrated Paper Mill

SIC/NAICS Code: 2621: Paper Mills

322299: All Other Converted Paper Product Manufacturing

Facility Latitude and 45° 35' 02.91" N Longitude: 122° 24' 38.32" W Facility Classification: Major Source

2. FACILITY DESCRIPTION

Georgia-Pacific Consumer Operations LLC operates a non-integrated paper mill that currently utilizes a single paper machine and converting operations to produce tissue and towel from purchased pulp. Purchased pulp is delivered to the two repulpers where steam and water are added to produce a slurry. The pulp slurry is then sent to Paper Machine #11, which can produce 65,700 tons of paper per year.

3. CURRENT PERMITTING ACTION

This permitting action is in response to Air Discharge Permit (ADP) application number CL-3274 dated July 31, 2024. Georgia-Pacific Consumer Operations LLC submitted ADP application CL-3274 requesting the following:

• NO_X emission limits for Boiler No. 6 be increased from 9 ppmvd to 12 ppmvd at 3% oxygen.

ADP 24-3666 will supersede ADP 20-3413 in its entirety.

4. PROCESS DESCRIPTION

Georgia-Pacific currently operates a single paper machine (Paper Machine #11) and associated converting operations at the Facility to produce tissue and towel from purchased pulp. Purchased pulp is delivered to the two repulpers (Halsey (H2F) Repulper and Outside Repulper) by truck.

Steam and water are added at the repulpers to produce a pulp slurry from the purchased pulp. The pulp slurry is then sent to Paper Machine #11, which can produce 65,700 machine-dried (approximately 4% moisture) tons of paper per year.

The paper machine consists of a forming roll, thru air dryer (TAD) that is heated with natural gas, Yankee dryer that is heated with natural gas, and a winder that produces parent rolls. Steam from Boiler #6 also aids in drying. Dust from the paper machine operations is collected and controlled by a venturi scrubber.

Parent rolls from Paper Machine #11 and purchased paper rolls are processed into consumer products in associated converting operations. The paper is unwound from the parent roll, slit, embossed, and rewound onto cores. The tissue and towel products are then packaged for shipment. Trim is collected and baled as broken for reuse in the papermaking process. Central dust collection systems (Converting Dust Collection, Converting Baler and Trim Collection) are used to control paper dust produced by the converting operations. Each system is equipped with a baghouse that vents back inside the converting buildings.

Three machines are used to manufacture paper cores in the converting process. Cores are typically made of three plys of core stock that are received in ribbon form. The core ribbons are fed over a glue application wheel and then excess glue is removed by a doctor blade. The ribbons are then wrapped around a forming mandrel that is driven by a forming belt. As the core forms on the mandrel, a cut off saw cuts the forming material to the correct length for the machine the core will be used on. Process glue is stored in totes. The finished cores are air dried.

Boiler #6 is a Rentech RTD-66 water tube package boiler with an ultra-low-NOx burner and flue gas recirculation (FGR). Boiler #6 is rated at 80,000 pounds per hour (lb/hr) of steam and 97.74 million British thermal units per hour (MMBtu/hr) heat input capacity and is used to provide steam for the paper machine. The boiler is fired exclusively on pipeline natural gas fuel.

The Facility operates various maintenance shops and minor construction equipment for the purpose of inspecting, maintaining and repairing production equipment and Facility structures. The Facility has eight gasoline, diesel, or natural gas emergency engines that power various pumps and generators.

Georgia-Pacific operates an industrial wastewater treatment plant to treat wastewater from the Facility. Wastewater receives primary and secondary treatment before being discharged to the main channel of the Columbia River. The clarifier, aeration basins and an associated limited purpose solid waste landfill are located on Lady Island, a 476-acre site separated from the mill proper by the Camas Slough. Waste fiber from the clarifier is thickened and conveyed to the landfill. Sanitary wastewater from the Facility is discharged to the City of Camas for treatment.

5. EQUIPMENT/ACTIVITY IDENTIFICATION

5.a. Package Boiler No. 6 (Modified). Rentech RTD-66 natural gas fired boiler with heat input rating of 97.74MMBtu/hr. Exhaust gases are discharged to ambient air through a 42" diameter stack at approximately 80' above ground level.

Location: 45°34'56.61"N 122°24'87"W

Boiler Manufacturer: Rentech Model Number: RTD-66 Serial Number: 2020-10

Heat Rate: 97.74 MMBtu/hr

Burner Manufacturer: ZEECO Burner Model Number: Free Jet

Stack Latitude: 45° 34′ 56.61″ N Stack Longitude: 122° 24′ 31.87″ W

Stack Diameter: 42" Stack Height: 80'

Stack Flow: 30,251 acfm

Stack Temperature: 300 °F

5.b. <u>Equipment/Activity Summary</u>.

ID No.	Equipment/Activity	Control Equipment/Measure
1	Package Boiler (Boiler 6), Rentch RTD-66, 2020-10	Ultra-low NO _X burner, low sulfur fuel (Nat Gas), and flue gas recirculation (FGR)

6. EMISSIONS DETERMINATION

Emissions to the ambient atmosphere from the Package Boiler (Boiler 6), as proposed in ADP Application CL-3125, consist of nitrogen oxides (NO_x), carbon monoxide (CO), volatile organic compounds (VOC), filterable and condensable particulate matter (PM/PM₁₀/PM_{2.5}), sulfur dioxide (SO₂), toxic air pollutants (TAPs), and hazardous air pollutants (HAPs).

6.a. <u>Package Boiler (Boiler 6)</u>. Potential emissions from the combustion of natural gas by this boiler were calculated with the assumption that the boiler could operate at full rated capacity for 8,760 hours per year.

Package Boiler						
Heat Rate =			97.74	MMBtu/hr		
Fuel Type =				Natural Gas		
Natural Gas Heat Valu	ie =		1,020	Btu/scf for A	AP-42 emiss	ion factors
Natural Gas Heat Valu	ıe =		1,026	Btu/scf for 4	0 CFR 98 G	HG emission factors
Fuel Consumption =			839.4	MMscf/yr		
	ppmvd	Emissic	n Factor			
Pollutant	@ 3% O ₂	lb/MMBtu	lb/MMscf	lb/hr	tpy	Emission Factor Source
NO_X	12	0.015	14.86	1.42	6.24	Manufacturer
СО	30	0.022	22.61	2.17	9.49	Manufacturer
VOC		0.0054	5.50	0.53	2.31	AP-42 Sec. 1.4 (7/98)
SO _X as SO ₂		0.0006	0.60	0.057	0.25	AP-42 Sec. 1.4 (7/98)
PM/PM ₁₀ /PM _{2.5} (filtera	ıble)	0.0019	1.90	0.182	0.80	AP-42 Sec. 1.4 (7/98)
PM/PM ₁₀ /PM _{2.5} (conde	ensable)	0.0056	5.70	0.55	2.39	AP-42 Sec. 1.4 (7/98)
Benzene		2.06E-06	0.0021	2.0E-04	8.81E-04	AP-42 Sec. 1.4 (7/98)
Formaldehyde		7.35E-05	0.075	7.2E-03	3.15E-02	AP-42 Sec. 1.4 (7/98)
Greenhouse			CO ₂ e	CO ₂ e		
Gases	kg/MMBtu	GWP	lb/MMBtu	lb/MMscf	tpy, CO ₂ e	Emission Factor Source
CO_2	53.06	1	116.98	120,019	50,078	40 CFR 98
CH ₄	0.001	25	0.055	56.55	23.6	40 CFR 98
N_2O	0.0001	298	0.066	67.41	28.1	40 CFR 98
Total GHG - CO ₂ e			117.098	120,143	50,130	

Emissions must be calculated using the emission factors identified above unless new emission factors are provided by the manufacturer or developed through source testing and are approved by SWCAA.

6.b. Emissions Summary

Air Pollutant	Potential to Emit (tpy)	Project Impact (tpy)
NO_x	6.24	+1.56 tpy
CO	9.49	+ 0 tpy
VOC	2.31	+ 0 tpy
SO ₂	0.25	+ 0 tpy
PM	3.19	+ 0 tpy

Air Pollutant	Potential to Emit (tpy)	Project Impact (tpy)
PM_{10}	3.19	+ 0 tpy
PM _{2.5}	3.19	+ 0 tpy
CO_2	50,078	+ 0 tpy
CO ₂ e	50,129	+ 0 tpy

Toxic/Hazardous Air Pollutant	Potential to Emit (tpy)	Project Impact (tpy)
benzene [0-00-0]	8.81E-04	+ 0 tpy
Formaldehyde [50-00-0]	3.15E-02	+ 0 tpy

7. REGULATIONS AND EMISSION STANDARDS

Regulations have been established for the control of emissions of air pollutants to the ambient air. Regulations applicable to the proposed facility 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 following regulations, codes, or requirements. These items establish maximum emissions limits that could be allowed and are not to be exceeded for new or existing facilities. More stringent limits are established in this Permit consistent with implementation of Best Available Control Technology (BACT):

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. <u>Title 40 Code of Federal Regulations (40 CFR) 51.166(c) "Ambient air increments"</u> requires approved State Implementation Plans to contain emission limitations and other measures as may be necessary to assure that increases in pollutant concentration over the baseline concentration in areas designated as Class I, II, or III shall not exceed the incremental limits contained 40 CFR 51.166(c).
- 7.b. <u>Title 40 Code of Federal Regulations (40 CFR) 60.7 "Notification and Recordkeeping"</u> requires that notification shall be submitted to SWCAA, the delegated authority, for date construction commenced, anticipated initial startup, and initial startup. The permit application includes information about the anticipated initial startup.
- 7.c. 40 CFR Part 60.8 "Performance Tests" requires that emission tests be conducted according to test methods approved in advance by the permitting authority and a copy of the results be submitted to the permitting authority.
- 7.d. <u>40 CFR 60 Subpart Dc "Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units"</u> applies to any steam generating unit with a heat input

- greater than or equal to 10 million Btu/hr, but less than or equal to 100 million Btu/hr constructed, modified, or reconstructed after June 9, 1989. Boiler 6 is subject to this regulation.
- 7.e. 40 CFR 63 Subpart A [§63.7] "Performance Testing Requirements" requires that emission tests be conducted according to test methods approved in advance by the permitting authority and a copy of the results be submitted to the permitting authority. This subpart is not applicable to the proposed Boiler 6 at this facility because it is fired solely on natural gas as provided in 40 CFR 63.11195(e).
- 7.f. 40 CFR 63 Subpart JJJJJ "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. This source is exempt from requirements is this statute because this unit is fired solely on natural gas, as provided in 40 CFR 63.11195(e).
- 7.g. 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 ADP for installation and establishment of an air contaminant source.
- 7.h. WAC 173-401 "Operating Permit Regulation" requires all major sources and other sources as defined in WAC 173-401-300 to obtain an operating permit. This regulation is applicable to this source and the site will complete an additional permit covering existing emission units.
- 7.i. WAC 173-476 "Ambient Air Quality Standards" establishes ambient air quality standards for PM₁₀, PM_{2.5}, lead, sulfur dioxide, nitrogen dioxide, ozone, and carbon monoxide in the ambient air, which shall not be exceeded.
- 7.j. 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.k. SWCAA 400-040(1) "Visible Emissions" requires that no emission of an air contaminant from any emissions unit shall exceed twenty percent opacity for more than three minutes in any one hour at the emission point, or within a reasonable distance of the emission point.
- 7.1. SWCAA 400-040(2) "Fallout" requires that no emission of particulate matter from any source shall be deposited beyond the property under direct control of the owner(s) or operator(s) of the source in sufficient quantity to interfere unreasonably with the use and enjoyment of the property upon which the material is deposited.
- 7.m. <u>SWCAA 400-040(3) "Fugitive Emissions"</u> requires that reasonable precautions be taken to prevent the fugitive release of air contaminants to the atmosphere.

- 7.n. SWCAA 400-040(4) "Odors" requires that any person who shall cause or allow the generation of any odor from any source, which may unreasonably interfere with any other property owner's use and enjoyment of their property use recognized good practices and procedures to reduce these odors to a reasonable minimum.
- 7.o. SWCAA 400-040(6) "Sulfur Dioxide" requires that no person shall emit a gas containing in excess of one thousand ppm of sulfur dioxide on a dry basis, corrected to 7% O₂ or 12% CO₂ as required by the applicable emission standard for combustion sources.
- 7.p. <u>SWCAA 400-040(8) "Fugitive Dust Sources"</u> requires that reasonable precautions be taken to prevent fugitive dust from becoming airborne and minimize emissions.
- 7.q. 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.r. <u>SWCAA 400-060 "Emission Standards for General Process Units"</u> 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.s. SWCAA 400-091 "Voluntary Limits on Emissions" allows sources to request voluntary limits on emissions and potential to emit by submittal of an ADP application as provided in SWCAA 400-109. Upon completion of review of the application, SWCAA shall issue a Regulatory Order that reduces the source's potential to emit to an amount agreed upon between SWCAA and the permittee. No request for a voluntary limit has been made by the facility.
- 7.t. 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.u. <u>SWCAA 400-110 "New Source Review"</u> 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.v. SWCAA 400-111 "Requirements for Sources in a Maintenance Plan Area" 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) Emissions will be minimized to the extent that the new source will not exceed emission levels or other requirements provided in the maintenance plan;
- (3) Best Available Control Technology will be employed for all air contaminants to be emitted by the proposed equipment;
- (4) The proposed equipment will not cause any ambient air quality standard to be exceeded; and
- (5) 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 BACT for the types and amounts of air contaminants emitted by the processes as described below:

New BACT Determination(s)

8.a. <u>BACT Determination – Package Boiler (Boiler 6)</u>. The use of the gas fired boiler equipped with ultra-low nitrogen oxide (NOx) burners, proper combustion controls, use of low sulfur fuel, and internal flue gas recirculation allow for the boiler to achieve NOx emissions of 12 ppmvd and CO emissions of 30 ppmvd.

In a previous BACT determination, nitrogen oxide (NOx) emissions were required to be below 9 ppmvd @ 3% O₂ for a one-hour average. Georgia Pacific Consumer Operations has now proved this limit to be difficult to maintain. The narrow compliance limit leads to unstable operation of the boiler at the mill. GP estimated the cost to study and remedy NOx emissions has cost them \$247,000 from February 2022 to March 2024 which does not include planned operational downtime.

The facility has conducted tuning and emissions verification testing two to three times per year. The manufacturer for Boiler 6, Zeeco Inc., completed testing and tuning 4 times since start up in March 2021 to meet the NOx requirement. During these tuning efforts it was discovered that the heating value of the natural gas changes randomly by 5-7% on a regular basis. Zeeco concluded the fuel variability "makes stable, reliable operations and consistent compliance with the [9 ppmv] NOx limit difficult." In the letter Zeeco concludes the letter by saying "we recommend a higher NOx emission limit of 12 ppm at 3% O₂ for this boiler due to fuel quality and variability."

Previous BACT Determination(s)

8.b. <u>BACT Determination – Package Boiler (Boiler 6).</u> The use of natural gas fired boilers equipped with ultra-low nitrogen oxide (NOx) burners, proper combustion controls, use of low sulfur fuel, and internal flue gas recirculation to achieve NOx emissions of 9 parts per million (ppm) and CO emissions of 30 ppm meets the requirements of BACT for boilers with rated heat inputs between 10 MMBtu/hr and 100 MMBtu/hr. This is the top control

option for the top-down BACT analysis so a detailed evaluation of lesser options was not required.

9. AMBIENT IMPACT ANALYSIS

The emission units at this facility will not emit any toxic air pollutant other than formaldehyde at a rate exceeding the applicable squall quantity emission rate (SQER) listed in WAC 173-460 (8/21/98). Toxic impacts of pollutants below the SQER are presumed to be negligible. Facility-wide increases in emission rates of criteria air pollutants will not exceed 10 tons per year, well below the significant levels for a PSD permit modification. At these emission rates no adverse ambient air quality impact is expected.

The facility completed an ambient air impact analysis using AERMOD. Concentrations of all criteria pollutants and HAPs/TAPs were estimated using this model. Only pollutants with an AP-42 emission factor rating of A or B are included in this permit. Note the model was done prior to ADP 20-3413, and NOx emissions were scaled to fit updated NOx criteria. Results of this modeling are as follows:

Pollutant*	Maximum Impact (ug/m³)	ASIL WAC-173 (ug/m³)
NOx	15.5	630
CO	23.4	23,000
SOx	0.644	660
Benzene	0.00036	0.12
Formaldehyde	0.0046	0.077

^{*} All SO_x is assumed to be emitted as SO₂ and all NO_x is assumed to be emitted as NO₂

Up to 62.6 lbs/year of formaldehyde could be emitted from the boiler if it is operated at full fire for 8760 hours a year, which exceeds the small quantity emission rate of 20 lbs/year. The modeling results indicate that these emissions will not result in ambient air concentrations that exceed the Acceptable Source Impact Level (ASIL) for formaldehyde.

9.a. <u>Criteria Air Pollutant Review</u>. Emissions of NO_X, CO, PM, VOC (as a precursor to O₃), and SO₂ are emitted at levels where no adverse ambient air quality impact is anticipated.

9.b. Toxic Air Pollutant Review.

The modifications proposed in ADP application CL-3274 will not affect the type or quantity of TAP emissions from the Package Boiler (Boiler 6). Previously approved BACT measures at the facility will limit emissions of Class A and B toxic air pollutants to below the applicable Small Quantity Emission Rates (SQER) or Acceptable Source Impact Level (ASILs) specified in WAC 173-460.

Conclusions

9.c. Modification of Package Boiler (Boiler 6), as proposed in ADP application CL-3274, will not cause the ambient air quality requirements of 40 CFR 50 "National Primary and Secondary Ambient Air Quality Standards" to be violated.

- 9.d. Modification of Package Boiler (Boiler 6), as proposed in ADP application CL-3274, 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.e. Modification of Package Boiler (Boiler 6), as proposed in ADP application CL-3274, will not violate 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 24-3666 in response to ADP application CL-3274. ADP 24-3666 contains approval requirements deemed necessary to assure compliance with applicable regulations and emission standards as discussed below.

- 10.a. <u>Supersession of Previous Permits</u>. ADP 24-3666 supersedes ADP 20-3413 in its entirety. Compliance will be determined under this ADP, not previously superseded ADPs. Existing approval conditions not affected by this project have been carried forward unchanged.
- 10.b <u>Emission Limits.</u> Annual emission limits were established at levels proposed by the permittee. These limits are equivalent to the maximum amount of emissions, based on relevant emission factors and manufacturers guarantees, and the maximum possible annual operating hours.
- 10.c <u>Monitoring and Recordkeeping Requirements.</u> ADP 24-3666 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.
- 10.d <u>Reporting Requirements.</u> ADP 24-3666 establishes general reporting requirements for annual air emissions, upset conditions and excess emissions. Reports are to be submitted on a semi-annual basis.

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

11.a. <u>Start-up and Shutdown Provisions</u>. Pursuant to SWCAA 400-081 "Start-up and Shutdown", technology-based emission standards and control technology determinations must 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 will include appropriate emission limitations, operating

parameters, or other criteria to regulate performance of the source during start-up or shutdown.

During boiler startup, the burner operates below its minimum turndown for an approximate 4-hour warm up procedure to minimize thermal stress on system components. The boiler is not capable of achieving the identified short-term emissions limits until the boiler has reached 20% of its rated steaming capacity (16,000 pounds steam per hour or kpph). Additionally, the main steam line requires a 2-4 hour warm up to prevent water hammer and ensure the line is free of steam condensate. The boiler must be operated to minimize emissions at all times; however, this total startup period is not to exceed 8 hours from first igniting the boiler. In the event that a boiler startup is aborted due to an unplanned maintenance event, the burner will be shutdown and the 8-hour startup period will restart when the burner is re-ignited.

- 11.b. <u>Alternate Operating Scenarios</u>. 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 approval conditions.
- 11.c. <u>Pollution Prevention Measures</u>. 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 or in addition to those measures required under BACT considerations. Therefore, none were included in the approval conditions.

12. EMISSION MONITORING AND TESTING

- 12.a <u>Emission Testing Package Boiler (Boiler 6).</u> Permit requirements for the Package Boiler (Boiler 6) require the permittee to conduct emission testing within 60 days of initial operation, and every five years thereafter, for the purposes of demonstrating compliance with applicable emission limits. All emission testing must be conducted in accordance with the provisions of ADP 24-3666, unless otherwise approved in advance by SWCAA.
- 12.b <u>Emission Monitoring Package Boiler (Boiler 6).</u> Permit requirements for the Package Boiler (Boiler 6) require the permittee to conduct emission monitoring annually no later than the end of the month in which the initial source testing was performed, except in years when source testing is performed, for the purpose of demonstrating compliance with applicable emission limits. All emission monitoring must be conducted in accordance with the provisions of ADP 24-3666.

13. FACILITY HISTORY

13.a. <u>General History</u>. This facility was previously regulated by the Department of Ecology until 2020.

13.b. <u>Previous Permitting Actions</u>. The following past permitting actions have been taken by SWCAA for this facility:

Permit	Application	Date Issued	Description
20-3413	CL-3125	July 14, 2020	Installation of a natural gas fired Package Boiler (Boiler 6).

13.c. <u>Compliance History</u>. A search of source records on file at SWCAA did not identify any previous or outstanding compliance issues over the past five (5) years. Until 2020 the facility was regulated by the Department of Ecology.

14. PUBLIC INVOLVEMENT OPPORTUNITY

- 14.a. <u>Public Notice for ADP Application CL-3274</u>. Public notice for ADP application CL-3274 was published on the SWCAA website for a minimum of fifteen (15) days beginning on August 8, 2024.
- 14.b. <u>Public/Applicant Comment for ADP Application CL-3274</u>. SWCAA did not receive specific comments, a comment period request, or any other inquiry from the public or the applicant regarding ADP application CL-3274. Therefore, no public comment period was provided for this permitting action.
- 14.c. <u>State Environmental Policy Act.</u> After reviewing the SEPA Checklist for this project, SWCAA has determined that the project does not have a probable significant impact on the environment and has issued Determination of Non-Significance 24-038. An Environmental Impact Statement is not required under RCW 43.21C.030(2)(c). SWCAA has adopted the New Boiler Project SEPA checklist created April 2020 that was used for ADP 20-3413.