SWCAA
Southwest Clean Air Agency

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Vancouver, WA 98662
(360) 574-3058
www.swcleanair.gov

August 26, 2024

Eric Finke
Alphia
350 N. Pekin Rd.
Woodland, WA 98674

RE: Final Air Discharge Permit for New Natural Gas Boilers

Dear Eric Finke:

A final determination to issue Air Discharge Permit (ADP) 24-3657 has been completed for ADP application CO-1094 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-1094 was published in the permit section of SWCAA's website on March 26, 2024. 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 24-3657 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.gov*). Original copies are enclosed for your files.

ADP 24-3657 may be appealed directly to the Pollution Control Hearings Board (PCHB) 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 Vannessa McClelland at (360) 574-3058, extension 129.

Sincerely,

Uri Papish
Executive Director

UP:vm

Enclosure: Technical Support Document and Air Discharge Permit 24-3657

SWCAA
Southwest Clean Air Agency

AIR DISCHARGE PERMIT
24-3657

Issued: August 26, 2024

Alphia
350 N. Pekin Rd.
Woodland, WA 98674

SWCAA ID – 1286

REVIEWED BY: _____
Clinton Lamoreaux, Chief Engineer

APPROVED BY: _____
Uri Papish, Executive Director

TABLE OF CONTENTS

1. Equipment/Activity Identification

ID No.	Equipment/Activity	Control Equipment/Measure
1	Cleaver Brooks Model CBEX-E 700-400-150ST Natural Gas-fired Boiler	Ultra-low Sulfur Fuel (Natural Gas)
2	Sioux SF-25 Natural Gas-fired Boiler	Ultra-low Sulfur Fuel (Natural Gas)
3	Twenty-eight Raw Ingredient Storage Silos	Filter Vents
4	Process Units: Extruder, Dryers, Coolers, Digest Coater	Odor Scrubbing System – Two Primary Scrubbers, One Secondary Scrubber, and an Odor Neutralizing System.

2. Permit Requirements

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 requirement is contained in the middle column. The emission unit, equipment, or activity to which the requirement applies is listed in the right-hand column.

ADP 24-3657 supersedes ADP 01-2333 in its entirety.

Emission Limits

<table>
<tr><th>Req. No.</th><th>Emission Limits</th><th>Equipment/ Activity ID No.</th></tr>
<tr><td>1.</td><td>Emissions from the Cleaver Brooks boiler must not exceed any of the following:

<table>
<tr><th>Pollutant</th><th>Emission Limit</th><th></th></tr>
<tr><td>NO_x</td><td>0.85 tpy</td><td>12 ppmvd</td></tr>
<tr><td>CO</td><td>1.30 tpy</td><td>30 ppmvd</td></tr>
</table>

Emissions must be calculated consistent with the methodology presented in Section 6 of the Technical Support Document (TSD) for this ADP unless unit specific source test data is collected. The short-term emission limits are determined as a 1-hour average, corrected to 3% O_2.</td><td>1</td></tr>
</table>

<table>
<tr><th>Req. No.</th><th>Emission Limits</th><th>Equipment/ Activity ID No.</th></tr>
<tr><td>2.</td><td>Emissions from the Sioux boiler must not exceed any of the following:

<table><tr><th>Pollutant</th><th colspan="2">Emission Limit</th></tr><tr><td>NO_x</td><td>0.16 tpy</td><td>30 ppmvd</td></tr><tr><td>CO</td><td>0.16 tpy</td><td>50 ppmvd</td></tr></table>
Emissions must be calculated consistent with the methodology presented in Section 6 of the TSD for this ADP unless unit specific source test data is collected. The short-term emission limits are determined as a 1-hour average, corrected to 3% O_2.</td><td>2</td></tr>
<tr><td>3.</td><td>Emissions from the material handling/silo baghouses must not exceed any of the following:

<table><tr><th>Pollutant</th><th colspan="2">Emission Limit</th></tr><tr><td>PM/PM_{10}</td><td>0.2 tpy (all units combined)</td><td>0.005 gr/dscf</td></tr></table>
The long-term emission limits are 12-month rolling sums. Emissions must be calculated consistent with the methodology presented in Section 6 of the TSD for this ADP unless unit specific source test data is collected.</td><td>3</td></tr>
<tr><td>4.</td><td>Emissions from the process scrubbers must not exceed any of the following:

<table><tr><th>Pollutant</th><th colspan="2">Emission Limit</th></tr><tr><td>PM/PM_{10}</td><td>0.50 tpy</td><td>0.15 lb/hr</td></tr></table>
The long-term emission limits are 12-month rolling sums. Emissions must be calculated consistent with the methodology and emission factors presented in Section 6 of the TSD for this ADP unless unit specific source test data is collected.</td><td>4</td></tr>
<tr><td>5.</td><td>Visible emissions from approved equipment must not exceed zero percent (0%) opacity for more than three (3) minutes in any 1-hour period as determined by an observer in accordance with SWCAA Method 9.</td><td>1 - 4</td></tr>
</table>

Operating Limits and Requirements

Req. No.	Operating Limits and Requirements	Equipment/ Activity ID No.
6.	Reasonable precautions must be taken at all times to prevent and minimize fugitive emissions from plant operations.	Facility-wide
7.	Operations that cause or contribute to a nuisance odor must use recognized good practice and procedures to reduce these odors to a reasonable minimum.	Facility-wide

Req. No.	Operating Limits and Requirements	Equipment/ Activity ID No.
8.	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.	1 - 4
9.	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.	3 - 4
10.	Boiler exhausts must be discharged vertically into the ambient air above the level of the building roof. Any device that obstructs or prevents vertical discharge is prohibited.	1 - 2
11.	The boilers must only be fired on natural gas.	1 - 2
12.	The primary scrubbing liquor pH must be equal to or greater than 10.	4
13.	The secondary scrubbing liquor free halogen concentration (bromine and/or chlorine) must be equal to or greater than 2 ppm at all times during operation.	4
14.	Doors, windows, and any other natural draft opening must remain closed except as necessary for loading and unloading.	Facility-wide

Monitoring and Recordkeeping Requirements

Req. No.	Monitoring and Recordkeeping Requirements	Equipment/ Activity ID No.
15.	Except for 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, a record must be made to that effect.	1 - 4
16.	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.	1 - 4
17.	Excess emissions and upset conditions must be recorded for each occurrence.	Facility-wide
18.	For each for product used or produced at the facility that contains VOC, HAP, or TAP, the Permittee must maintain purchase receipts for quantities, Safety Data Sheet (SDS) information, and Technical Data Sheets (TDS) in a readily accessible form.	4

Req. No.	Monitoring and Recordkeeping Requirements	Equipment/ Activity ID No.
19.	The following must be recorded in an operation and maintenance log: (a) Each baghouse venting to the ambient air must be inspected for proper operation (including wear, torn bags, and loose bags) weekly, and the results of the inspections must be recorded; (b) Primary scrubbing liquor pH must be recorded daily; (c) Secondary scrubbing liquor free bromine and/or chlorine concentration must be recorded daily; (d) The amount and type of chemicals added to the scrubbing liquor must be recorded for each occurrence if added periodically, or the rate of addition recorded weekly and for each rate change; (e) Amount of natural gas consumed in each boiler must be recorded monthly; and (f) Maintenance and repair activities that may affect the emissions of air pollutants, including filter replacements on baghouses, must be recorded for each occurrence.	1 - 4

Emission Monitoring and Testing Requirements

Req. No.	Emission Monitoring and Testing Requirements	Equipment/ Activity ID No.
20.	The Cleaver Brooks natural gas boiler emission testing must be conducted in accordance with Appendix A no later than sixty days following start-up of the unit. Subsequent testing must be conducted by the end of December 2030 and the end of December every five (5) years thereafter. Emission testing may be conducted within the three calendar months preceding the month in which testing is due. Emission testing conducted earlier requires prior approval by SWCAA. Testing before or after the due date does not modify or reset the test schedule.	1
21.	The Cleaver Brooks and Sioux natural gas boilers must be emission monitored in accordance with Appendix B each calendar year, no later than December 31. Subsequent monitoring must be conducted on a 12-month cycle, no later than the end of December. Emission monitoring is not required on the Cleaver Brooks in a year when an emission test is performed.	1 - 2

Reporting Requirements

Req. No.	Reporting Requirements	Equipment/ Activity ID No.
22.	Upset conditions must be reported to SWCAA within five (5) business days after discovery. The Permittee must report to SWCAA as soon as possible after discovery by phone call or phone message, email, or fax. It is the Permittee's responsibility to verify that the upset conditions information was received.	Facility-wide
23.	Excess emissions must be reported to SWCAA as follows: (a) 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; (b) 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 (c) No later than thirty (30) calendar days after the end of the month of discovery for all other excess emissions.	Facility-wide
24.	Deviations from permit conditions must be reported as soon as possible but no later than 30 days after the end of the month during which the deviation is discovered.	Facility-wide
25.	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.	Facility-wide
26.	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: (a) Annual emissions of NO_x, CO, VOC, PM, PM_{10}, $PM_{2.5}$, SO_2, TAPs, and HAPs; (b) The quantity of product produced; (c) The quantity of grains received; (d) The quantity and types of chemicals added to the secondary scrubbing liquor; (e) The minutes the scrubbers operated; and (f) The quantity of natural gas consumed by each boiler.	1 – 4
27.	The results of all emission testing required by this ADP must be reported to SWCAA in writing within forty-five (45) calendar days of test completion.	1
28.	The results of all emission monitoring required by this ADP must be reported to SWCAA in writing within fifteen (15) calendar days of completion.	1 - 2

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 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 ensure 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.
K.	For the purposes of establishing if a condition of this ADP has been violated or is being violated, nothing in this ADP precludes the use, including the exclusive use, of any credible evidence or information relevant to whether a source would have been in compliance with applicable requirements if the appropriate performance or compliance test procedures or methods had been performed.

Appendix A
Emission Testing Requirements
Cleaver Brooks Boiler

1. Background

The purpose of this testing is to quantify emissions from the Cleaver Brooks boiler and to provide an adequate assurance of compliance with the terms and conditions of this ADP.

2. Test Constituents and Test Methods

(a) Sample ports, traverse points, volumetric flow rate, gas velocity, and temperature using EPA Methods 1 and 2;
(b) O_2 and CO_2 using EPA Methods 3 or 3A;
(c) Moisture content of stack gas using EPA Method 4;
(d) Carbon monoxide (CO) using EPA Method 10;
(e) Nitrogen oxides (NO_x) using EPA Method 7E; and
(f) Visible emissions (opacity) using SWCAA Method 9.

3. Test Plan and Notification

A comprehensive test plan must be submitted to SWCAA for review and approval a minimum of ten (10) business days prior to the proposed test date. SWCAA must be notified a minimum of three (3) calendar days prior to the proposed test date so that a SWCAA representative may be present during testing.

4. Test Requirements

(a) Test Dates.
  (1) Initial testing of the Cleaver Brooks boiler must be conducted no later than 60 days following start-up of the unit; and
  (2) Subsequent testing must be conducted by the end of December 2030 and the end of December every five years thereafter. Testing conducted more than three (3) months prior December does not fulfill the testing requirement unless approved in advance by SWCAA.

(b) Test Duration. Tests must include a minimum of three (3) test runs, each at least one (1) hour in duration.

(c) Test Location. The Permittee must provide the necessary platform and sampling ports for testing personnel to perform a test of the systems. Testing must be performed on the exhaust of the boiler at a location that meets the requirements of EPA Methods 1 and 2.

(d) Source Operations. Source operations during the emissions test must be representative of the maximum intended level of normal operation. Inability to achieve maximum intended level of normal operation must be preapproved by SWCAA in advance of performing the test.

(e) Test Records. A complete record of production related parameters, including process startups and shutdowns, control equipment startups and shutdowns, and any adjustments made during testing must be kept during emissions testing to correlate operations with emissions and must be recorded in the test results final report. Include a summary of production related parameters, which may include fuel type, operating temperature, process throughput, or other parameters unique to the operation of the unit being tested.

Appendix A
Emission Testing Requirements
Cleaver Brooks Boiler

5. Reporting Requirements

Unless otherwise directed by SWCAA, a final test report must be prepared and submitted in an approved electronic format to SWCAA within forty-five (45) calendar days of test completion and, at a minimum, must contain the following information:

(a) A brief description of the purpose of the test, for example, an initial test, a periodic test required by an ADP, a test required by a federal, state, or local rule or regulation, or a test required to determine compliance with a Notice to Correct;
(b) Description of the unit being tested, including manufacturer, model number, serial number, design capacity, and maximum intended level of operation;
(c) The location and description of the discharge point (stack, port, etc.), including the dimensions (diameter, length and width, or other) and height above ground level. A photo of the discharge point is highly recommended;
(d) The location of the sample ports or test location and a description of how the sampling location relates to the discharge point. For example, the sampling location may be in a square duct some distance away from the discharge point, which is a round stack. A photo of the sample ports or test location is highly recommended;
(e) Time and date of the test and identification and qualifications of the personnel involved;
(f) Summary of results, reported in units and averaging periods consistent with the application emissions standard or unit;
(g) Test results must be reported in:
    (1) ppmvd, corrected to 3% O_2; and
    (2) pound per hour (lb/hr).
(h) Summary of air pollution control systems or equipment operating conditions during the test;
(i) Summary of production related parameters, which may include fuel type, operating temperature, process throughput, pressure or pressure drop, pH, recirculation rates, or other parameters unique to the operation of the unit being tested;
(j) A description of the test methods or procedures used, including all field data, quality assurance/quality control procedures and documentation;
(k) A description of the analytical procedures used, including all laboratory data, quality assurance/quality control procedures and documentation;
(l) Copies of field data and example calculations;
(m) Chain of custody information;
(n) Calibration documentation;
(o) Discussion of any abnormalities associated with the results; and
(p) A statement signed by the senior management official of the testing firm certifying the validity of the source test report. Reports with material mistakes or misinformation may be rejected by SWCAA.

Appendix A
Emission Testing Requirements
Cleaver Brooks Boiler

6. Changes to Testing Requirements

The source test must be conducted as specified in the sections above. Minor modifications to the requirements above or to the testing schedule may be requested by the Permittee or their representative, in writing, to SWCAA. Upon review of the request and in accordance with EPA delegation, SWCAA will inform the Permittee, in writing, of any approved modifications.

Appendix B
Performance Monitoring Requirements
Cleaver Brooks and Sioux Boilers

1. Background

The purpose of emission monitoring ("tuning") is to determine proper operation of the natural gas boilers and to adjust as necessary to minimize emissions and provide a reasonable assurance that the boilers are operating properly.

2. Test Constituents and Monitoring Methods

(a) Oxygen (O_2) 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. Emission monitoring must be conducted each calendar year no later than December 31 on the primary fuel, unless the unit is not in use during that year, or a reference method source testing was conducted on that unit during that year. A primary fuel is the fuel that was burned in the largest quantity (in therms or MMBtu) in the previous twelve (12) months. Monitoring conducted more than three (3) months prior to the month testing is due does not fulfill the monitoring requirement unless approved in advance by SWCAA.
(b) Source Operation. Boiler operation during the emissions monitoring must be representative of current intended 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 limits. 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

Appendix B
Performance Monitoring Requirements
Cleaver Brooks and Sioux Boilers

must either perform sixty (60) minutes of additional monitoring to more accurately quantify CO and NO_x emissions or initiate corrective action. Additional monitoring 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.

Boiler	NO_X (ppmvd @ 3% O_2)	CO (ppmvd @ 3% O_2)
Cleaver Brooks	12	30
Sioux	30	50

4. Reporting Requirements

Monitoring results must be reported to SWCAA within fifteen (15) calendar days of completion. Compliance must be determined by comparing the average of the results of each evaluation run with the requirements of the ADP. 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) Test "tapes" or other direct information generated by the monitoring equipment;
(e) A summary of collected data, calculations, and final results, reported in units consistent with the applicable emission standard or limit.
(f) Final test result concentrations must be corrected to 3% O_2 and adjusted to reflect analyzer response to zero and span gases
(g) A summary of control system or equipment operating conditions;
(h) A description of the evaluation methods or procedures used, including all field data, quality assurance/quality control procedures and documentation; and
(i) Calibration error checks documentation.

5. Changes to Testing Requirements

Monitoring must be conducted as specified in the sections above. Minor modifications to the requirements above or to the schedule may be requested by the Permittee or their representative, in writing, to SWCAA. Upon review of the request and in accordance with EPA delegation, SWCAA will inform the Permittee, in writing, of any approved modifications.