NORTH COAST UNIFIED AIR QUALITY MANAGEMENT DISTRICT
707 L Street, Eureka, CA 95501
Phone: (707) 443-3093 Fax: (707) 443-3099

TITLE V FEDERAL OPERATING PERMIT
&
NCUAQMD PERMIT TO OPERATE
NCU 060-12

ISSUED TO:
Humboldt Redwood Company, LLC
PO Box 37
Scotia, CA 95565

LOCATION:
Humboldt Redwood Company
169 Main Street
Scotia, CA 95565

PERMIT ISSUED:
November 14, 2024

#001241-1	Boiler A
#001262-1	Boiler B
#001263-1	Boiler C
#000936-2 rev. 2	Dry Lumber Kilns
#001146-2	Knife Planer & Gang Trimmer
#000938-2	Emergency Compression Ignition Engine

RESPONSIBLE OFFICIAL:
Mr. Gary Anderson
Director, Humboldt Sawmill Company
Phone: (707) 764-4371
gandersen@hrcllc.com

CONTACT PERSON:
Mr. Tim Burke
EHS Director
Phone: (707) 468-1712
tburke@hrcllc.com

NATURE OF BUSINESS:
Electric power generation, transmission, and distribution; sawmill and planing mill.

STANDARD INDUSTRIAL CLASSIFICATION (SIC):
2421 and 4911

DEFINITIONS

As used in this permit, the terms shall have the meaning set out herein.

a. **acfm**: actual cubic feet per minute
b. **Active Drying**: means any time steam heat is being applied, or while temperature or humidity is being regulated and controlled in the dry lumber kilns.
c. **Annual Capacity Factor**: the ratio between the actual heat input to a steam generating unit from fuel (e.g. diesel oil) during a calendar year and the potential heat input to the steam generating unit had it been operated for 8,760 hours during a calendar year at the maximum steady state design heat input capacity.
d. **APCO**: the NCUAQMD Air Pollution Control Officer
e. **BDT**: Wood Waste that weighs 2,000 lb at 0% moisture content
f. **Breakdown or Malfunction**: any unforeseeable failure or malfunction of any air pollution control equipment or operating equipment which causes a violation of any emission standard or limitation prescribed by the NCUAQMD, State, or federal rules, regulations, laws, or similar failure of any required in-stack continuous monitoring equipment where such failure or malfunction:
    1. Is not the result of intent, neglect, or disregard of any air pollution control law, rule, or regulation;
    2. Is not the result of improper maintenance, careless or improper operation, or operator error;
    3. Is not the result of improperly designed or installed equipment;
    4. Does not constitute a nuisance; and
    5. Is not an excessively recurrent breakdown of the same equipment.
g. **Calendar Day**: any continuous 24-hour period beginning at 12:00 AM or 0000 hours
h. **California Air Resources Board (CARB) Diesel Fuel**: any diesel fuel that is commonly or commercially known, sold, or represented by the supplier as diesel fuel No. 1-D or No. 2-D, pursuant to the specifications in ASTM D975-81, “Standard Specification for Diesel Fuel Oils,” as modified in May 1982, which is incorporated herein by reference, and that meets the specifications defined in Title 13 CCR, sections 2281, 2282 and 2284
i. **CAM Plan**: Compliance Assurance Monitoring Plan, as defined in 40 CFR 64
j. **CARB**: the California Air Resources Board
k. **CEMS**: Continuous Emissions Monitoring System
l. **CFR**: the Code of Federal Regulations
m. **Clean Dry Biomass**: means any biomass-based solid fuel that have not been painted, pigment-stained, or pressure treated, does not contain contaminants at concentrations not normally associated with virgin biomass materials and has a moisture content of less than 20 percent and is not a solid waste.
n. **COMS**: Continuous Opacity Monitor
o. **Daily Block Average**: means the arithmetic mean of all valid emission concentrations or parameter levels recorded when a unit is operating measured over the 24-hour period from 12 a.m. (midnight) to 12 a.m. (midnight), except for periods of Startup and Shutdown and periods when the unit is not operating.

p. **Diesel Fuel Oil**: a liquid fuel derived from crude oil or petroleum, including distillate and residual oil
q. **Diesel Particulate Matter (DPM)**: filterable particulate matter (PM) measured using EPA method 5
r. **District**: North Coast Unified Air Quality Management District
s. **dscfm**: dry standard cubic feet per minute
t. **Emergency**: any situation arising from a sudden and reasonably unforeseeable event beyond the control of a permittee which causes the excess of a technology-based emission limitation under a permit and requires immediate corrective action to restore compliance. An emergency does not include non-compliance as a result of improperly designed or installed equipment, lack of preventative maintenance, careless or improper operation, or operator error.
u. **EPA**: the United States Environmental Protection Agency
v. **Facility**: the site of the equipment authorized for use by this permit
w. **Heat Input**: the energy (heat) input of the fuel combusted at the higher heating value (HHV) of the fuel
x. **HEPA filter**: means a High Efficiency Particulate Air filter used to remove particles less than one (1) micron in aerodynamic diameter and operates at removal efficiencies of 99.9 percent or better.
y. **HHV**: Higher Heating Value
z. **H&SC**: California Health & Safety Code
aa. **hr**: one hour – a standard measurement of time
bb. **H_2S**: Hydrogen Sulfide
cc. **Initial Startup**: The first day the Authorized Equipment is operated for its intended purpose or function. Operation prior to Initial Startup, for example during a commissioning period or initial testing phase, shall not be considered as the Initial Startup.
dd. **KPPH**: thousand pounds per hour
ee. **lb**: pound – an English unit of measurement of weight and mass being equivalent to 7000 grains, 16 ounces, and 0.453 kilograms
ff. **MMBtu**: million British thermal units
gg. **MMbf**: million board-feet
hh. **Natural Gas**: any mixture of gaseous hydrocarbons containing at least 80 percent methane by volume as determined by Standard Method ASTM D1945-64
ii. **Natural Vegetation**: All plants, excluding those defined as “Wood Waste”, including but not limited to grasses, tree, shrubs, bushes, canes, leaves, flowers, or vines that grow in the wild or under cultivation. Natural vegetation excludes vegetative materials that have been processed, treated, or preserved with chemicals for subsequent human or animal use, including but not limited to chemically-treated timber, wood products, or paper products.
jj. **NCUAQMD**: North Coast Unified Air Quality Management District
kk. **NFPA**: National Fire Protection Association
ll. **Notice**: unless otherwise stated, shall be in writing, sent postage prepaid, to the APCO and include all information required. Notice shall be sent to the APCO at the following address: 707 L Street, Eureka, CA 95501. Hand delivery or facsimile are also acceptable.
mm. **O_2**: Oxygen

nn. **Paper Wastes**: Newspaper, cardboard, and any other paper excluding mixed paper from magazines or junk mail, or glossy paper wastes.
oo. **Permittee:** the owner or operator identified on the Permit title page
pp. **PM**: Particulate Matter
qq. **Ppmvd**: parts per million, volumetric dry
rr. **Quarter**: calendar quarter, consisting of the following Q1 – January through March; Q2 – April through June; Q3 – July through September; Q4 – October through December
ss. **Responsible Official**: person(s) who have direct authority or control to affect operations of the equipment authorized pursuant to this Permit, and who have the ability to certify that a source complies with all applicable federal requirements and federally enforceable permit conditions as generally defined in NCUAQMD Rule 101(B)
tt. **ROC**: reactive organic compound consistent with NCUAQMD Rule 101(B)
uu. **Shutdown**: The cessation of operation, for any purpose, of a facility subject to a District, State, or federal rule or regulation.
vv. **Shutdown, Boiler**: means the period in which cessation of operation of a boiler or process heater is initiated for any purpose. Shutdown begins when the boiler or process heater no longer supplies useful thermal energy (such as heat or steam) for heating, cooling, or process purposes and/or generates electricity or when no fuel is being fed to the boiler or process heater, whichever is earlier. Shutdown ends when the boiler or process heater no longer supplies useful thermal energy (such as steam or heat) for heating, cooling, or process purposes and/or generates electricity, and no fuel is being combusted in the boiler or process heater.
ww. **SO_2**: Sulfur Dioxide
xx. **Startup**: The setting in operation of an emission unit for any purpose.
yy. **Startup, Boiler**: means either:

The first-ever firing of fuel in a boiler or process heater for the purpose of supplying useful thermal energy for heating and/or producing electricity, or for any other purpose, or the firing of fuel in a boiler after a Shutdown event for any purpose. Startup ends when any of the useful thermal energy from the boiler or process heater is supplied for heating, and/or producing electricity, or for any other purpose, or

The period in which operation of a boiler or process heater is initiated for any purpose. Startup begins with either the first-ever firing of fuel in a boiler or process heater for the purpose of supplying useful thermal energy (such as steam or heat) for heating, cooling, or process purposes, or producing electricity, or the firing of fuel in a boiler or process heater for any purpose after a Shutdown event. Startup ends four hours after when the boiler or process heater supplies useful thermal energy (such as heat or steam) for heating, cooling, or process purposes, or generates electricity, whichever is earlier.

zz. **Useful Thermal Energy**: Useful thermal energy means energy (i.e., steam, hot water, or process heat) that meets the minimum operating temperature, flow, and/or pressure required by any energy use system that uses energy provided by the affected boiler or process heater.
aaa. **VEE**: Visible Emissions Evaluation

bbb. **Wood Waste**: combustible Wood Waste from timber, sawmill residues, forest residues, chip, and vegetation, which is not treated with any chemicals or lead-based paints.

ccc. **Year**: any consecutive twelve-month period of time.

PERMIT HISTORY

Initial Permit	July 20, 1998
Minor Modification	August 10, 1999
Minor Modification	July 18, 2000
Minor Modification	January 22, 2003
Minor Modification	May 28, 2003
Minor Modification	January 29, 2015
Significant Modification	January 31, 2017
Significant Modification	November 14, 2024

Applicable Rules

A review of Federal, State, and local regulations was performed to determine applicability based upon the operation equipment and mechanical processes that occur at the facility. The results of the search are listed in the tables below. In this evaluation, each rule is discussed in the *Permitted Unit* section to which it applies.

Table 1 Federally Enforceable Rules & Regulations

Citation	Description	Adoption Date
Regulation I, Rule 102	Permit Requirements	7-9-15
Regulation I, Rule 110	New Source Review Standards	7-9-15
Regulation I, Rule 103	Action on Applications	7-9-15
Regulation I, Rule 104(B)	Visible Emissions	7-9-15
Regulation I, Rule 104(C)	Particulate Matter	7-9-15
Regulation I, Rule 104(D)	Fugitive Dust	7-9-15
Regulation I, Rule 104(E)	Sulfur Oxide Emissions	7-9-15
Regulation 1, Rule 200	New Source Review Standards (SIP Approved)	9-25-1998
Regulation V	Procedures for Issuing Permits to Operate for Sources Subject to Title V	10-16-14
NSPS	40 CFR 60 Subpart Db – Standards of Performance for Industrial, Commercial, and Institutional Steam Generating Units	6-13-2007
NESHAP	40 CFR 63 Subpart DDDDD – Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial, and Institutional Boilers	10-6-2022
CAM	40 CFR Part 64	10-22-97

Table 2 Non-Federally Enforceable Rules & Regulations

Citation	Description	Adoption Date
Regulation IV, Rule 400	Stationary Source Permit Fees	10-16-14
Regulation IV, Rule 406	Title V Fees	10-16-14
Regulation IV, Rule 407	Air Toxic “Hot Spots” (AB2588) Fees	10-16-14
HSC §44300-44394	Air Toxic “Hot Spots” Regulations	10-16-14
Regulation IV, Rule 402(B)	Major Source Assessment	10-16-14

Process Description

HSC operates three wood waste fired boilers, each rated at 150,000 pounds of steam/hour (235 MMBtu/hour) to produce electricity for internal use and sale. The boilers are stoker type, where fuel is fed to a large horizontal traveling grate system (combustion air mechanism) by pneumatic fuel spreaders. Diesel fuel oil burners, rated at 90 MMBTU/hour, are used in each boiler to supply heat for startups, shutdowns and periods of poor wood combustion (i.e. high moisture content). The powerhouse, completed in 1989, contains two primary electric generators, manufactured by General Electric, rated at 25 MW each. A third generator, located in the old powerhouse, is rated at 7.5 MW

Biomass fuel used at the power plant includes mill waste, green waste, and other wood wastes defined as: wood, wood residue, bark, or any derivative fuel or residue thereof, including, but not limited to, sawdust, sanderdust, wood chips, millings, shavings, and processed pellets made from wood residue provided it is not treated with any chemicals. A portion of the biomass fuel is obtained directly as wood waste from the facility’s sawmill.

FEDERALLY ENFORCEABLE GENERAL REQUIREMENTS

TITLE V PERMIT MODIFICATIONS AND RENEWAL

1. The Permittee shall submit to the Air Pollution Control Officer a completed Title V permit application for renewal no earlier than 18 months prior to the expiration date of the Title V permit and no later than 6 months prior to the expiration date of the Title V permit). [*District Rule 502(B)(2); 40 CFR 70.5(a)(1)(iii)*]

2. If modifications to the permit are necessary, the Permittee shall submit to the Air Pollution Control Officer a complete Title V permit application for either an Administrative, Minor, or Significant Title V permit modification. The application shall not be submitted prior to receiving any required preconstruction permit from the District. [*District Rule 502(B)(3); 40 CFR 70.5(a)(1)(ii)*]

3. The Permittee shall submit to the Air Pollution Control Officer updates to the Title V application as new requirements become applicable to the source, and in no event later than 180 days after the end of the quarter during which the new requirement takes effect. [*40 CFR 70.5(b)*]

4. Upon the discovery of inaccuracies contained within an application or supplement thereto, the Permittee shall immediately notify the APCO. The Permittee shall undertake action to correct the deficiency within the time frame specified by the APCO. [*District Rule 502(E)(3); 40 CFR 70.5(a)(2) and (b)*]

5. Upon written request of the Air Pollution Control Officer, the Permittee shall supplement any complete application with additional information within the time frame specified by the Air Pollution Control Officer. [*District Rule 502(E)(2); 40 CFR 70.5(a)(2) and (b)*]

6. When submitting an application for a permit pursuant to Regulation V, the Permittee shall include the following information: A certification by a responsible official of all reports and other documents submitted for permit application; compliance progress reports at least every 6 months for, and submitted no later than 30 days after, the periods January 1st through June 30th and July 1st through December 31st of each year; statements on compliance status with any applicable enhanced monitoring; and annual compliance plans, no later than January 30th of each year, which shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document(s) are true, accurate, and complete. [*40 CFR 70.5(c)(9) and (d)*]

7. With the exception of acid rain units subject to Title IV of the Clean Air Act and solid waste incinerators subject to section 129(e) of the Clean Air Act, each permit issued pursuant to District Regulation 5 for any source shall include a condition for a fixed term not to exceed five years from the time of issuance. A permit to operate for an acid rain unit shall have a fixed permit term of five years. A permit to operate for a solid waste incinerator shall have a permit term of 12 years. However, the permit shall be reviewed at least every five years. [*District Rule 504(K); 40 CFR 70.6(a)(2)*]

COMPLIANCE

8. The Permittee shall comply with all conditions of the Title V permit. [*District Rule 504(B)(7)*]

9. The Permittee may not assert or use as a defense, expressly, impliedly, or by operation of law or past practice, in any enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this Title V permit. [*District Rule 504(B)(7)(d)*]

10. This Title V permit may be modified, revoked, reopened and reissued or terminated for cause. [*District Rule 503(I)*]

11. The Permittee shall furnish to the Air Pollution Control Officer, within 10 (ten) days of the request, any information that the Air Pollution Control Officer may request in writing to determine whether cause exists for modifying, revoking and reissuing, terminating this permit, or to determine compliance with this Title V permit. Upon request, the Permittee shall also furnish to the Air Pollution Control Officer copies of records required to be kept by conditions of this permit. For information claimed to be confidential, the Permittee may furnish such records along with a claim of confidentiality. [*40 CFR 70.6(a)(6)(v)*]

12. Noncompliance with any federally enforceable requirement in this Title V permit is grounds for Title V permit termination, revocation and reissuance, modification, enforcement action, or denial of the Title V permit renewal application. [*District Rule 504(B)(7)(c)*]

13. A pending Title V permit action (e.g. a proposed permit revision) or notification of anticipated noncompliance does not stay any permit condition. [*District Rule 504(B)(7)(e)*]

14. This Title V permit does not convey any property rights of any sort or any exclusive privilege. [*District Rule 504(B)(7)(b)*]

15. Upon presentation of credentials and other documents as may be required by law, the Permittee shall allow the Air Pollution Control Officer or an authorized representative to perform all of the following:
    a. Enter the stationary source's premises where this source is located or emissions related activity is conducted, or where records must be kept under the conditions of this permit;
    b. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this Title V permit;
    c. Inspect at reasonable times, the stationary source, equipment (including monitoring and air pollution control equipment), practices and operations regulated or required under this Title V permit; and
    d. As authorized by District rules or by the Federal Clean Air Act, sample or monitor at reasonable times substances or parameters for the purpose of ensuring compliance with the Title V permit conditions or applicable federal requirements. [*District Rule 504(B)(5)*]

REPORTS AND RECORDKEEPING

16. Monitoring Reports
    a. The Permittee shall submit to the Air Pollution Control Officer at least once every six months, unless required more frequently by an applicable requirement, reports of all required monitoring set out in this Title V permit.
    b. The reporting periods for this permit shall be for the six month periods January 1st through June 30th and July 1st through December 31st. The reports shall be submitted by July 30th and January 30th of each year respectively.

c. Any and all instances of deviations from Title V permit conditions must be clearly identified in such reports. All required reports must be certified by the responsible official and shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate and complete. [*District Rule 502(K) and Rule 504(E); 40 CFR 70.6(a)(3)(ii) and (iii)*]

17. Compliance Reports
    a. The Permittee shall submit to the Air Pollution Control Officer and to U.S. EPA (Air-3, U.S. EPA, Region IX) on an annual basis, unless required more frequently by additional applicable federal requirements, a certification of compliance by the Permittee with all terms and conditions contained in the Title V permit, including emission limitations, standards and work practices.
    b. The reporting period for this permit shall be January 1st through December 31st. The report shall be submitted by January 30th of each year.
    c. All required reports must be certified by the responsible official and shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate and complete.
    d. The compliance certification shall include the following:
        i. The identification of each term or condition of the Title V permit that is the basis of the certification.
        ii. The method(s) used for determining the compliance status of the source, currently and over the reporting period, and whether such method(s) provides continuous or intermittent data.
        iii. The status of compliance with the terms and conditions of the Title V permit for the period covered by the certification, based on the method designated in Section D (ii) of this condition.
        iv. Such other facts as the Air Pollution Control Officer may require in order to determine the compliance status of the source.
        v. A method for monitoring the compliance of the stationary source with its emissions limitations, standards and work practices. [*District Rule 504(J); 40 CFR 70.6(b)(5)*]

18. The Permittee shall report within 24 hours of detection any deviation from a federally enforceable Title V permit condition. In order to fulfill the reporting requirement of this condition, the Permittee shall notify the Air Pollution Control Officer by telephone, email, or fax followed by a written statement within seven (7) days describing the nature of the deviation from the federally enforceable permit condition. [*District Rule 504(E); 40 CFR 70.6(a)(3)(iii)*]

19. All monitoring data and support information required by a federally enforceable applicable requirement must be kept by the stationary source for a period of 5 years from the date of the monitoring sample, measurement, report or application. Support information includes all calibration and maintenance records, all electronic data for continuous monitoring instrumentation, and copies of all reports required by the federally enforceable applicable requirement in the Title V permit. [*District Rule 502(J) and Rule 504(C); 40 CFR 70.6(a)(3)(ii)*]

PUBLIC NUISANCE

20. The Permittee shall not discharge such quantities of air contaminants or other material which cause injury, detriment, nuisance or annoyance to any considerable number of persons or to the public; or which endanger the comfort, repose, health or safety of any such persons or the public; or which cause or have a natural tendency to cause injury or damage to business or property. [*District Rule 104(A)(1)*]

VISIBLE EMISSIONS

21. The Permittee shall not discharge into the atmosphere from any single source of emission, any air contaminant other than uncombined water vapor, for a period or periods aggregating more than three minutes in any one hour which is:
    a. As dark or darker in shade as that designated No. 2 (3-minute average), on the Ringelmann Chart, as published by the United States Bureau of Mines, or
    b. Of such opacity as to obscure a human observer's view, or a certified calibrated in-stack opacity monitoring system to a degree equal to or greater than forty percent (40%) opacity. [*H&SC §41701*]

PARTICULATE MATTER

22. Particulate Discharge Limitations
    a. General Combustion Sources: The Permittee shall not discharge particulate matter into the atmosphere from any combustion source in excess of 0.46 grams per standard cubic meter (0.20 grains per standard cubic foot) of exhaust gas, calculated to 12 percent carbon dioxide; or in excess of the limitations of NSPS (District Rule 104(K)), as applicable. [*District Rule 104(C)(1)*]
    b. Steam Generating Units: The Permittee shall not discharge particulate matter into the atmosphere from any steam generating unit, installed or modified after July 1, 1976, in excess of 0.23 grams per standard cubic meter (0.10 grains per standard cubic foot) of exhaust gas, calculated to 12 percent carbon dioxide; or in excess of the limitations of NSPS [*District Rule 104(C)(2)*]
    c. Steam Generating Utility Power Plants: Notwithstanding the limitations set out above, no steam generating power plants which produce electric power for sale to any public utility shall discharge particulate matter into the atmosphere in excess of 0.10 pounds per million BTU heat input or any other specific applicable permit limitation, whichever is the more restrictive emission condition. [*District Rule 104(C)(3)*]
    d. Non-Combustion Sources: The Permittee shall not discharge particulate matter into the atmosphere from any non-combustion source in excess of 0.46 grams per actual cubic meter (0.20 grains per cubic foot) of exhaust gas or in total quantities in excess of the maximum allowable process weight rate as listed in Rule 104 Table 1. [*District Rule 104(C)(5)*]

23. The Permittee shall not handle, transport or store, or allow open storage of materials in such a manner which allows or has the potential to allow unnecessary amounts of particulate matter to become airborne. Reasonable precautions shall be taken to prevent particulate matter from becoming airborne, including, but not limited to, the following:

a. Covering open bodied trucks when used for transporting materials likely to give rise to airborne dust.
b. Installation and use of hoods, fans, and fabric filters to enclose and vent the handling of dusty materials. Containment methods can be employed during sandblasting and other similar operations.
c. Conduct agricultural practices in such a manner as to minimize the creation of airborne dust.
d. The use of water or approved dust surfactants for control of dust in the demolition of existing buildings or structures, construction operations, the grading of roads or the clearing of land.
e. The application of asphalt, oil, water or suitable chemicals on dirt roads, materials stockpiles, and other surfaces which can give rise to airborne dusts.
f. The paving of roadways and their maintenance in a clean condition.
g. The prompt removal of earth or other material from paved streets onto which earth or other material has been transported by trucking or earth moving equipment, erosion by water, or other means. [*District Rule 104(D)*]

SULFUR COMPOUNDS

24. The Permittee shall not discharge into the atmosphere from any single source of emissions, sulfur oxides (calculated as sulfur dioxide (SO_2)) in excess of 1,000 ppm or in excess of the emission limitations of Federal New Source Performance Standards, as applicable. [*District Rule 104(E)*]

OPEN BURNING

25. The Permittee shall not ignite or cause to be ignited or suffer, allow or maintain any open outdoor fire for the disposal of rubber, petroleum or plastic wastes, demolition debris, tires, tar paper, wood waste, asphalt shingles, linoleum, cloth, household garbage or other combustible refuse, or for metal salvage or burning of motor vehicle bodies. [*District Rules 201*]

26. The Permittee shall not conduct any open outdoor burning unless written authorization is obtained from the District in the form of a District burn permit [District Rule 201(B)(1)]

EMERGENCY EVENTS

27. The Permittee shall comply with the emergency provisions contained in all applicable federal requirements.
    a. Within two working days of the emergency event, the Permittee shall notify the Air Pollution Control Officer with a description of the emergency and any mitigating or corrective actions taken. [*District Rule 502(I)*]
    b. Within two weeks of an emergency event, the owner(s), operator(s) or the responsible official shall submit to the Air Pollution Control Officer a signed contemporaneous log or other relevant evidence which demonstrates that:
        i. An emergency occurred.
        ii. Identification of the cause(s) of the emergency.
        iii. The facility was being properly operated at the time of the emergency.

iv. Identification of all steps taken to minimize the emissions resulting from the emergency.

c. The Permittee has the burden of proof to establish that an emergency occurred in any enforcement proceeding.

TITLE VI REQUIREMENTS (OZONE DEPLETING SUBSTANCES)

28. The Permittee shall not allow or cause the opening of appliances containing CFCs for maintenance, service, repair, or disposal unless first complying with the required practices set out pursuant to 40 CFR 82.156. [*40 CFR 82 Subpart F*]

29. Equipment used during the maintenance, service, repair, or disposal of appliances containing CFCs shall comply with the standards for recycling and recovery equipment set out in and pursuant to 40 CFR 82.158. [*40 CFR 82 Subpart F*]

30. The Permittee and its contractors and agents performing maintenance, service, repair or disposal of appliances containing CFCs must be certified by an approved technician certification program set out in and pursuant to 40 CFR 82.161. [*40 CFR 82 Subpart F*]

ASBESTOS

31. The Permittee shall comply with the standards of 40 CFR 61 Subpart M which regulates demolition and renovation activities pertaining to asbestos materials.

PAYMENT OF FEES

32. The Permittee shall pay an annual permit fee and other fees as required in accordance with District Regulation IV, Rule 406, Title V Fees. Failure to pay these fees will result in immediate suspension of this Title V Permit to Operate. Operation without an effective Title V permit subjects the Permittee to potential enforcement action by the District and the U.S. EPA pursuant District Rules and Section 502(a) of the Clean Air Act as amended in 1990. [*District Regulation IV Rule 406*]

ACCIDENTAL RELEASES

33. If subject to Section 112(r) of the CAA and 40 CFR Part 68, the Permittee Title V permit shall register and submit to the U.S. EPA the required data related to the risk management plan (RMP) for reducing the probability of accidental releases of any regulated substances listed pursuant to Section 112(r) (3) of the CAA as amended in 68.130. The list of substances, threshold quantities and accident prevention regulations promulgated under Part 68 do not limit in any way the general duty provisions under Section 112(r)(1). [*40 CFR Part 68*]

34. If subject to Section 112(r) of the CAA and 40 CFR Part 68, the Permittee shall comply with the requirements of 40 CFR Part 68 no later than the latest of the following dates as provided in 40 CFR 68.10(a):

    a. June 21, 1999,

b. Three years after the date on which a regulated substance is first listed under 68.130, or
c. The date on which a regulated substance is first present above a threshold quantity in a process. [*40 CFR Part 68*]

35. If subject to Section 112(r) of the CAA and 40 CFR Part 68, the Permittee(s) shall submit any additional relevant information requested by any regulatory agency necessary to ensure compliance with the requirements of 40 CFR Part 68. [*40 CFR Part 68*]

36. If subject to Section 112(r) of the CAA and 40 CFR Part 68, the Permittee(s) shall annually certify compliance with all applicable requirements of Section 112(r) as part of the annual compliance certification. This annual compliance certification shall be submitted and received no later than January 30th of each year. [*40 CFR Part 68*]

CONDITIONAL TRANSFER OF OWNERSHIP

37. In the event of any changes in control or ownership of these facilities, this permit together with its terms and conditions shall be binding on all subsequent owners and operators. The Permittee shall notify the succeeding owner and operator of the existence of this permit and its conditions by letter, a copy of which shall be forwarded to the District, and which shall identify the exact effective date of the transfer of ownership.

38. The new owner(s) and operator(s) of this Title V source shall notify the Air Pollution Control Officer within 30 (thirty) days of the transfer of ownership and which notification shall include a certification by the responsible party that the Title V facility operations are to be operated in the same operational parameters as set out herein, and as before the transfer of ownership.

SEVERABILITY

39. If any term or condition of this permit, for any reason, be adjudged by a court of competent jurisdiction to be invalid, such judgement shall not affect or invalidate the remainder of this permit. These permit conditions are enforceable individually and severally. [*40 CFR 60.6(a)(5); District Rule 504(B)(8)*]

LOCALLY ENFORCEABLE ONLY GENERAL REQUIREMENTS

APPLICABILITY

40. Any permit or written authorization issued pursuant herein shall not be transferable, by operation of law or otherwise, from one location to another, or from one person to another, unless such transfer occurs as a condition of this permit or as a modification to the permit and with written notification to the Air Pollution Control Officer within 30 (thirty) days of transfer of ownership. *[District Rule 102(E)]*

41. If any term or condition of this permit, for any reason, be adjudged by a court of competent jurisdiction to be invalid, such judgment shall not affect or invalidate the remainder of this permit. These permit conditions are enforceable individually and severally. [*40 CFR 60.6(b)(5); District Rule 504(B)(8)*]

ADMINISTRATION

42. The Permittee shall not cause or permit the construction or modification of any new source of air contaminants or modifications to an existing source, either minor or major, without first having obtained an Authority to Construct (ATC) permit from the Air Pollution Control Officer. [*District Rule 102 (A)*]

43. This permit is effective only upon payment of the permit fees set out in District Rules and Regulations. [*District Rule 405(B)(2)*]

44. This Permit is issued pursuant to California Health and Safety Code Section 42300. Commencement of any act or operation authorized by this Permit shall be conclusively deemed to be acceptance of all terms and conditions contained herein. *[District Rule 103(E)]*

45. The Permittee shall comply with all conditions of this permit. Any violation of any condition of this Permit is a violation of District Rules and Regulations, and California State Law. [*District Rule 105(A)*]

46. The Permit Conditions shall be liberally construed for the protection of the health, safety and welfare of the people of the District. [*District Rule 100(F)(3)*]

47. The District Rules and Regulations may be superseded or revised by the District Board with notice as required by state law. It is Permittee's responsibility to stay current with Rules and Regulations governing its business. The Permittee is therefore expected to, and shall, comply with all applicable Rules and Regulations. [*District Rule 100(F); Rule 105(A)*]

48. Permit requirements apply to the facility owner and/or operator(s) and any contractor(s) or subcontractor(s) performing any activity authorized under this Permit. Any person(s) including contractor(s), subcontractor(s), not in compliance with the applicable permit requirements are in violation of State and Local laws, and are subject to appropriate civil and criminal penalties. The facility owner and/operator, and all contractor(s) or subcontractor(s) are strictly liable for the actions and violations of their employee(s). A

violation committed by a contractor(s) or subcontractor(s) shall be considered a violation by the facility owner(s) and/or operator(s), and is also a violation by the contractor(s) and/or any subcontractor(s). [*District Rule 102*]

49. Prior to building, erecting, altering, or replacing any article, machine, equipment, or other contrivance where the use of said article may result in the discharge of air pollutants or in the reduction, elimination, or control of air pollutants, the Permittee shall obtain written authorization from the APCO. [*District Rule 102*]

50. Knowing and willful misrepresentation of a material fact in the application for the Permit, or failure to comply with any condition of the Permit, or of the District Rules and Regulations, or any state or federal law, shall be grounds for revocation of this Permit. [*District Rule 102*]

51. Permittee shall not construct, erect, modify, operate, or use any equipment which conceals the emission of an air contaminant, which would otherwise constitute a violation of the limitations of this Permit. [*District Rule 104(A)(2)*]

52. This Permit does not convey any property rights of any sort, or any exclusive privilege.*[District Rule 102(E)]*

53. The "Right of Entry", as delineated in California Health and Safety Code Section 41510 of Division 26, shall apply at all times. Failure to grant immediate access to District, CARB, or other authorized personnel shall be grounds for permit suspension or revocation. *[District Rule 102(E)]*

54. The APCO reserves the right to amend this Permit in order to ensure compliance with all applicable Federal, State and Local laws, Rules and Regulations or to mitigate or abate any public nuisance. Such amendments may include requirements for additional operating conditions, testing, data collection, reporting and other conditions deemed necessary by the APCO. *[District Rule 102(E)*

55. If any provision or condition of this Permit is found invalid by a court of competent jurisdiction, such finding shall not affect the validity or enforcement of the remaining provisions. [*District Rule 102(E)*]

56. This Permit shall be posted in a conspicuous location at the site and shall be made available to District representatives upon request. [*District Rule 102(H)*]

57. The Permittee shall pay an annual permit fee and other fees as required in accordance with District Regulation IV. Failure to pay these fees will result in the forfeiture of this Permit. Operation without a permit subjects the source to potential enforcement action by the District. In the event of facility closure or change of ownership or responsibility, the new owner or operator shall be assessed and shall pay any unpaid fees. [*District Regulation IV - Fees*]

58. This Permit is not transferable from either one location to another, from one piece of equipment to another, or from one person to another, except as provided herein. In the

event of any change in control or ownership of the subject facility, the Permittee shall notify the succeeding owner of this Permit and its conditions; and shall notify the District of the change in control or ownership within fifteen (15) days of that change. [*District Rule 400(E)*]

59. A request for Transfer of Ownership of this Permit shall be submitted to the APCO prior to commencing any operation of the subject equipment and/or operations by any owner(s) and/or operator(s) not otherwise identified in this Permit. Failure to file the Transfer of Ownership constitutes a separate and independent violation, and is cause for voiding this Permit. The burden of applying for a Transfer of Ownership is on the new owner(s) and/or operator(s). Any Permit transfer authorized pursuant to a transfer of ownership request shall contain the same conditions as this Permit. [*District Rule 400(E)*]

60. For purposes of this Permit, the terms identified in the Definition Section shall have the meaning set out in District Rule 101 and as defined in the definition section of this permit. In the event of any conflict between Rule 101 and the permit definitions, the definitions section of this permit shall prevail. *[District Rule 102(E)]*

EMISSIONS & OPERATION

61. This Permit does not authorize the emission of air contaminants in excess of those allowed by the federal Clean Air Act, California Health and Safety Code or the Rules and Regulations of the District. This Permit shall not be considered as permission to violate existing laws, ordinances, regulation or statutes of other governmental agencies. *[District Rule 102(E)]*

62. The Permittee shall not discharge such quantities of air contaminants or other material which cause injury, detriment, nuisance or annoyance to any considerable number of persons or to the public; or which endanger the comfort, repose, health or safety of any such persons or the public; or which cause or have a natural tendency to cause injury or damage to business or property. [*H&SC §41700; District Rule 104(A)(1)*]

63. The Permittee shall not discharge into the atmosphere from any source whatsoever any air contaminant which is in excess of twenty (20) percent opacity, or as dark or darker in shade as that designated as No. 1 on the Ringelmann Chart, calculated as a six minute average. Opacity observations shall be taken and recorded as described in EPA Reference Method 9. [*District Rule 104(B)(3)*]

64. The handling, transporting, or open storage of material in such a manner which allows unnecessary amounts of particulate matter to become airborne shall not be permitted. Reasonable precautions shall be taken to prevent particulate matter from becoming airborne. [*District Rule 104(D)*]

65. All equipment regulated by this Permit shall at all times be maintained in good working order, and shall be operated as efficiently as possible so as to ensure compliance with all applicable emission limits. For purposes of compliance with this requirement, good working order, efficient operation, and proper maintenance shall mean the implementation of all protocols, procedures, and activities recommended by the device manufacturer or those required by this Permit. *[District Rule 102(E)]*

RECORDS & TRAINING

66. The Permittee shall provide training and instruction to all affected contractor(s), subcontractor(s), and employee(s). Training shall include the identification of all the requirements contained within this Permit, and the appropriate method to be used to comply with the permit conditions. Training shall occur prior to any of the contractor(s), subcontractor(s), or employee(s) constructing or operating equipment authorized by this permit. Records documenting the persons receiving instruction and the instruction materials shall be made available to the APCO upon request. [*District Rule 102*]

67. The Permittee shall furnish to the APCO any information that the District may request to determine compliance with this Permit or whether cause exists for modifying, revoking and reissuing, or terminating this Permit. Upon request, Permittee shall also furnish to the District copies of records required to be kept by this Permit. The information and records shall be submitted within the time period determined by the APCO. [*H&SC §42303; District Rule 103(F)*]

68. The Permittee shall record the following information in the event of an equipment breakdown or malfunction of Authorized Equipment which creates, causes, or results in a violation any emission limitation or restriction prescribed by District Rules or State law: date and time of event; event duration; a description of event; the cause of the event; what corrective measures were taken, including what actions were taken to prevent re-occurrence; if corrective actions were unsuccessful, what additional measures should be taken in the future; and the quantity of excess emissions released during the event. The Permittee shall report the information listed above to the District within 10 days of when the breakdown event was corrected. If the Permittee reports the event to the District in within one hour of its detection pursuant to Rule 105(D)(2), the APCO may elect to not take enforcement action if the requirements of Rule 105(D) are satisfied. [*District Rule 105(D)*]

69. The Permittee shall annually prepare and submit a comprehensive facility wide emission inventory plan for all criteria pollutants and toxic air contaminants emitted from the facility. The plan shall identify the protocols, procedures, and content necessary to prepare an emission inventory report in accordance with the most recent version of the CAPCOA / CARB reference document *Emission Inventory Criteria Guidelines*. The inventory report shall be submitted to the District no later than March 1st of the following calendar year. The inventory report is subject to APCO approval. [*H&SC 42303; District Rule 103(F)*]

PERMIT TERM

70. The Title V permit expiration terminates the Permittee's right to operate the stationary sources itemized in this permit unless a timely and complete Title V permit application for renewal has been submitted in accordance with District Regulation V Rule 502(B)(2), in which case the existing Title V permit will remain in effect until the Title V permit renewal has been issued or denied. [*District Rule 502(A)(2)*]

PERMIT UNITS

Permit Number: #001241-1

Name: Boiler A

AUTHORIZED EQUIPMENT

1. This Permit supplements existing District Permit Number NS-074, issued for the operation of Device S-1 (Boiler A), the wood-fired boiler. Upon the first fire of the unit after the construction and modifications authorized pursuant to District Authority to Construct Permit 001241-1 are completed; the Permittee shall operate Device S-1 in accordance with this permit.

2. This permit authorizes the operation of the following equipment shown in Table 1.0 below: [*District Rule 102(B)*]

Table 1.0 - Authorized Process Equipment

Device S-1	**Boiler A** (External Combustion Traveling Grate Stoker Boiler – Electric Generation)
SCC	10100911
Application	Generation of steam to power turbine generators
Manufacturer	Riley Stoker Company
Input Rating	235 MMBtu/hr
Output Rating	150,000 pounds of steam/hr
Fuel Type	Wood Waste (supplemented with diesel oil as needed from a 90 MMBtu/hr burner, and other authorized fuel types)
Control Device	C-1 (mechanical multiclone collector), C-2 (ESP), C-3 (forced overfire air system)
Useful Thermal Energy Threshold	See approved Startup/Shutdown Plan
Release Point	E-1

3. This permit authorizes the operation of the following control equipment shown in Table 2.0 below: [*102(B)*]

Table 2.0 Authorized Control Equipment

Device C-1	Multiclone Collector
Make / Model	Clarage 11CYT 13X Collector
Pollutant Controlled	PM
Pressure Drop	Max: TBD / Min: TBD
Emission Device Controlled	S-1 (Boiler A)
Device C-2	Electrostatic Precipitator (ESP)

Make / Model	General Electric BE1-1X20(12)-35-0-221-1T
Size	42,120 square feet collection plate area with 3 transformer/rectifier fields
Flow rate	Approx. 127,624 acfm
Max Inlet Loading	0.75 grains/dscf
Max Outlet Loading	0.017 grains/dscf (mfgr mass emission guarantee)
Rating	50 KVA, 50 KVA, and 35 KVA
Pollutant Controlled	PM
Emission Device Controlled	S-1 (Boiler A)
Stack ID	E-1
Stack Location	10 T 398.532 km E 4517.223 km N UTM NAD83
Device C-3	Forced Overfire Air System
Manufacturer	Zurn Air System
Description	Fan and piping which takes a portion of the air from the air heater that would otherwise be injected through the bottom of the combustion chamber and redirects it to the upper portion of the combustion chamber.
Operation	Operated to optimize the combustion and minimize CO emissions. It is adjusted by the boiler operator based on monitoring of CO levels and visual observation of combustion.
Pollutants controlled	CO, NOx
Emission Device Controlled	S-1 (Boiler A)

4. This permit authorizes the operation of the following monitoring equipment shown in Table 3.0 below. The substitution with equivalent devices may occur if approval from the APCO is received prior to their installation and the devices are incorporated into the Facility's *Device Operational and Maintenance Plan*. [*District Rule 102(B)*]

Table 3.0 Authorized Monitoring Equipment

Device	**CEM and COM Systems**
Manufacturers	CEMEX 200 CEM System NOx Analyzer - Thermo Scientific Model 42i-LS CO Analyzer – Thermo Scientific Model 48i O_2 Analyzer - Bran-Gaus Model 4705, single range COM - Teledyne Monitor Labs Model 560
Pollutants Monitored	NOx, CO, O_2, Opacity
Source Monitored	Device S-1 (Boiler A)

5. The Permittee shall install, operate, and maintain a non-resettable fuel volume meter according to manufacturer's recommendations to measure the amount of diesel fuel oil combusted by the supplemental diesel fuel oil burner of Device S-1 (Boiler A). The measuring devices shall be tested/calibrated at least once every 24 months. Measuring devices shall be tested/calibrated at more frequent intervals if necessary to ensure compliance. [District Rule 102(E)]

6. Prior to initiation of operations of device C-1 (Multiclone), the Permittee shall install, calibrate, operate, and maintain equipment necessary to record pressure drop across Device C-1 (inches of water) allowing for continuous measurement/display, recorded at least once every calendar day.

7. The Permittee shall operate, at all times, including during periods of Startup and Shutdown, a continuous opacity monitoring system (COMS) meeting the standards set forth in 40 CFR 63.7540. The COMS shall determine the relative opacity of Device S-1 (Boiler A) exhaust gases. The COMS shall be operated in such a manner as to conform with the requirements of 40 CFR Part 60, Appendix B, Performance Specification. Calibration checks shall be performed in accordance with 40 CFR 60.13. [40 CFR 60.49b and 40 CFR 63.7500]

8. The Permittee shall operate at all times, including during periods of Startup and Shutdown, a continuous emissions monitoring system (CEMS) for the determination of carbon monoxide, nitrogen oxides, and oxygen emissions from Device S-1 (Boiler A). The CEMS shall be operated in conformance with 40 CFR Part 60, Appendix B, Performance Specifications, and Appendix F, Quality Assurance procedures. Calibration checks shall be performed in accordance with 40 CFR 60.13. [*40 CFR 60.49b and 40 CFR 63.7500*]

9. The Permittee shall install points of access to the Authorized Process Equipment, Control Equipment, and Monitoring Equipment such that compliance testing in accordance with the appropriate reference test methods can be performed. All points of access shall conform to the latest Cal-OSHA safety standards. For purposes of compliance with this part, appropriate test methods shall mean the test methods identified in the "Compliance Testing and Monitoring" section of this permit and the collection of gas samples with a portable NOx, CO, and O_2 analyzer. Sample collection ports shall be located in accordance with 40 CFR Part 60 Appendix A, and with the CARB document entitled *California Air Resources Board Air Monitoring Quality Assurance Volume VI, Standard Operating Procedures for Stationary Emission Monitoring and Testing*. [*NCUAQMD Rule 102(E) and 103(A)*]

OPERATIONAL CONDITIONS

10. The Permittee shall operate S-1 (Boiler A) such that the quantity of diesel fuel oil combusted in S-1 does not exceed the lesser of the following:
    a. 10% of the annual capacity factor for a calendar year; and
    b. 1.47 million gallons per calendar year. [*40 CFR 60.44b(d)*]

11. The Permittee shall operate S-1 (Boiler A) such that steam production does not exceed any of the following:
    a. 150,000 pounds per hour;
    b. 407,000 pounds per hour total for Boiler A (S-1), Boiler B (S-2), and Boiler C (S-3) on a monthly average basis;
    c. 1,314.0 million pounds per calendar year.

12. The Permittee shall only operate S-1 (Boiler A) using one of the following fuels:

a. Wood Waste as defined as: Wood, wood residue, bark, or any derivative fuel or residue thereof, including, but not limited to, sawdust, sanderdust, wood chips, millings, shavings, and processed pellets made from wood residue provided it is not treated with any chemicals. Painted wood is allowable provided that the paint is tested for lead. Lumber painted with lead based paints shall not be burned in the boiler;
b. Diesel Fuel Oil with a nitrogen content of 0.30 weight percent or less;
c. Paper Wastes, as defined, not to exceed 1 ton per day and must be less than 10% of the volume of wastes burned per hour; or
d. Natural Vegetation as defined as: All plants, including but not limited to grasses, tree, shrubs, bushes, canes, leaves, flowers, or vines that grow in the wild or under cultivation. Natural vegetation excludes vegetative materials that have been processed, treated, or preserved with chemicals for subsequent human or animal use, including but not limited to chemically-treated timber, wood products, or paper products
e. Any combination of a) through d) above.

13. The Permittee shall conduct periods of Startup according to the applicable work practice standards of 40 CFR 63.7500 including the following:
    a. CMS as authorized in Table 3.0 must be operated during Startup;
    b. For Startup of a boiler or process heater, Permittee must use one or a combination of the following clean fuels: distillate oil, paper, cardboard, clean dry biomass, or any combination of authorized fuels meeting the appropriate HCl, mercury, and TSM emission standard by fuel analysis.
    c. HSC has chosen to and shall comply with paragraph (2) of the definition of Startup and shall therefore comply with the following work practice standard.
        i. Once Permittee begins to feed fuels that are not clean fuels, they must vent emissions to the main stack(s) and engage all of the applicable control devices so as to comply with the emission limits with 4 hours of start of supplying useful thermal energy. They must engage and operate PM controls within one hour of first feeding fuels that are not clean fuels. They must start all applicable control devices as expeditiously as possible, but, in any case, when necessary to comply with other standards applicable to the source by a permit limit or a rule other than this subpart that require operation of the control devices. They must develop and implement a written Startup and Shutdown plan, as specified in § 63.7505(e).

14. The Permittee shall conduct periods of Shutdown according to the applicable work practice standards of 40 CFR 63.7500 including the following:
    a. CMS as authorized in Table 3.0 must be operated during Shutdown;
    b. While firing fuels that are not clean fuels during Shutdown, Permittee must vent emissions to the main stack(s) and operate all applicable control devices.
    c. If, in addition to the fuel used prior to initiation of Shutdown, another fuel must be used to support the Shutdown process, that additional fuel must be one or a combination of the following clean fuels: distillate oil, paper, cardboard, clean dry biomass, or any combination of authorized fuels meeting the appropriate HCl, mercury, and TSM emission standard by fuel analysis.

15. The Permittee shall operate and maintain the Authorized Control Equipment and Authorized Monitoring Equipment at all times that fuel is being combusted in S-1 (Boiler A), including during periods of Startup and Shutdown, and in accordance with manufacturer's recommendations, the *Device Operational Plan*, and *Device Maintenance & Replacement Plan*, and all applicable regulations.

16. The Permittee shall operate C-1 (Multiclone) such that while S-1 (Boiler A) is in operation, including startup and shutdown events, the differential pressure drop across C-1 shall be within the operating range identified during the initial particulate matter performance test required pursuant to this Authority to Construct permit. The operating range during normal operations shall be defined in the required *Device Operational Plan*. The operating range during startup and shutdown shall be defined in the required *Startup, Shutdown, and Malfunction Plan*. [*NCUAQMD Rule 102(E)*]

17. The Permittee shall continuously maintain C-2 (ESP) in accordance with manufacturer's recommendations, the *Device Operational Plan,* the *Device Maintenance and Replacement Plan*, and the requirements of this section which shall include but not be limited to the following:
    a. Inspection of each ESP rapper at least once per day. The inspection shall consist of a visual inspection of the rapper control settings and status lights. Individual rappers found to be out of service shall be identified and appropriate repairs performed on the rappers.
        i. Permittee shall repair rappers that fail due to temporary short circuit or circuit overload that blow a fuse within 2 working days of identification;
        ii. Permittee shall repair working rappers that fail due to an electric/electronic part within 30 days of identification; and
        iii. These repair dates may be adjusted upon approval of the APCO.
    b. Inspection of the ESP on a daily basis, according to the *Device Operational Plan,* and the *Device Maintenance and Replacement Plan*. The Inspection shall include, but not be limited to, a record of each cell voltage, amperage and spark rate.
    c. Maintain the primary and secondary current of each Transformer Rectifier (TR) set within a range, in amps, as determined from operational data obtained and as stated in the *Device Operational Plan*. An alarm shall be set in such a manner as to indicate current excursions from the established range.
    d. Maintain the primary and secondary voltage of each Transformer Rectifier (TR) set within a range, in volts, as determined from operational data obtained and as stated in the *Device Operational Plan*. An alarm shall be set in such a manner as to indicate voltage excursions from the established range.
    e. Maintain the spark rate in each ESP field within a range in sparks/minute as stated in the *Device Operational Plan*. An alarm shall be set in such a manner as to indicate spark rate excursions from the established range.
    f. The ESP shall be maintained leak-free.

18. The Permittee shall operate the C-2 (ESP) automatic rapping system, electric fields, and corona power levels, to maximize collection efficiency and minimize particulate re-entrainment, according to the manufacturer's specifications, and as identified in the *Device Operational Plan* and *Device Maintenance & Replacement Plan*.

19. The Permittee shall take immediate corrective action to restore compliant operation upon detection of a malfunction or breakdown condition that causes or may cause a violation of any emissions limitation, as established in this permit or in District rules. [*NCUAQMD Rule 110(H)(10)*]

20. The Permittee shall maintain all ducting, housings, fans, chambers, exhaust stacks, and waste transfer and collection points in a leak-free state during all times of operation. Emissions of exhaust gases visible to the unaided human eye shall not occur at any point upstream of the final release point (stack). All material collected by C-1 (multiclone) and C-2 (ESP) shall be kept in an enclosed container.

21. The Permittee shall develop, implement, and maintain a *Compliance Assurance Monitoring Plan* in accordance with 40 CFR Part 64. The plan shall be submitted to the APCO within 120 days after initial startup of Device S-1 with newly installed control Device C-1 (Multiclones). The Permittee shall fully implement the plan elements effective the date of approval by the APCO.

22. The Permittee shall implement, and maintain a written *Startup, Shutdown, and Malfunction Plan* as described in 40 CFR Part 63.6(e)(3) that contains specific procedures for maintaining the authorized equipment, associated control devices, associated CEMS, sensors, measuring devices, during periods of Startup, Shutdown, and malfunction. The plan must clearly describe the Startup and Shutdown sequence procedure for each unit. The plan shall also include a specific program of corrective actions to be implemented in the event of a malfunction in either the process or control systems. The plan shall be submitted to the APCO within 120 days after the permit renewal date and is subject to APCO approval. Modifications to the plan are subject to APCO approval and the Permittee shall not operate the authorized equipment and their associated control devices unless an APCO-approved *Startup, Shutdown, and Malfunction Plan* is in effect.

23. The Permittee shall implement, and maintain a written *Device Operational Plan* that contains specific procedures for operating the authorized equipment, associated control devices, associated CEMS, sensors, and measuring devices. The plan shall be consistent with the requirements of this permit, and all local, state and federal laws, rules, and regulations. The plan shall include, but not be limited to, daily system integrity inspections and the recording of operational parameters. The plan shall be submitted to the APCO within 120 days after the permit renewal date and is subject to APCO approval. Modifications to the plan are subject to APCO approval and the Permittee shall not operate the authorized equipment and their associated control devices unless an APCO-approved *Device Operational Plan* is in effect. *[NCUAQMD Rule 102(E)]*

24. The Permittee shall implement, and maintain a written *Device Maintenance & Replacement Plan* that contains specific procedures for equipment maintenance and identifies replacement intervals for components of the authorized equipment, associated control devices, associated CEMS, sensors, and measuring devices. The plan shall be submitted to the APCO within 120 days after the permit renewal date and is subject to APCO approval. Modifications to the plan are subject to APCO approval and the Permittee shall not operate the authorized equipment and their associated control devices unless an APCO-approved *Device Maintenance & Replacement Plan* is in effect. *[NCUAQMD Rule*

102(E)]

EMISSION LIMITATIONS

25. The Permittee shall not discharge pollutants into the atmosphere from S-1 (Boiler A), release point E-1 in excess of the following emission limits:
    a. Particulate Matter (PM)
        i. Particulate loading – The Permittee shall not discharge from filterable particulate matter from release point E-1 into the atmosphere in excess of 0.034 pounds per million Btu of heat input. [*40 CFR 63.7500*]
        ii. The permittee shall not discharge particulate matter into the atmosphere from release point E-1 (Boiler Stack A) in excess of 0.04 lb/mmBTU. [Rule 110(E)(1), ATC dated 12-2-1986, and reissued 5-30-1990, 9-24-1991, and 1-31-2017]
        iii. The Permittee shall not discharge particulate matter into the atmosphere from release point E-1 (Boiler Stack A) in excess of 0.1 grains per standard cubic foot of exhaust gas, calculated to 12% carbon dioxide. [*NCUAQMD Rule 104(C)(2)*]
        iv. Visible Emissions – The Permittee shall not discharge into the atmosphere from release point E-1 exhaust gases that exhibit greater than 20 percent opacity (6-minute average), except for one 6-minute period per hour of not more than 27 percent opacity. The opacity standard listed in this section applies at all times except during periods of Startup and Shutdown. [*40 CFR 60.43b(f), District Rule 104(B)(3) and District ATC/PSD dated 12/2/86 and reissued on 5/30/90 and 9/24/91*]
        v. Visible Emissions – The Permittee shall not discharge into the atmosphere from release point E-1 exhaust gases that exhibit greater than 10 percent opacity calculated as a daily block average. [*40 CFR 63.7500*]
        vi. Visible Emissions – The Permittee shall not cause to be discharged into the atmosphere from any source whatsoever any air contaminant for a period or periods aggregating more than three (3) minutes in any one hour which is as dark or darker in shade as that designated as No. 1 on the Ringelmann Chart, as published by the United States Bureau of Mines; or of such opacity as to obscure an observers view to a degree equal to or greater than Ringelmann 2 or forty (40) percent opacity for more than twelve (12) individual readings recorded during any one hour period. This exemption does not apply to emissions which exceed a period or periods of time aggregating more than 30 minutes in any 24-hour period, or which result from the failure to operate and maintain in good working order any emission control equipment. [*HSC 41701, HSC 41704 (n)*]

    b. Mercury (Hg) – The Permittee shall not discharge Hg into the atmosphere in excess of 5.4E-06 lb per MMBtu of heat input. [40 CFR 63.7575 subpart DDDDD, Table 2]

    c. Hydrogen Chloride (HCl) – The Permittee shall not discharge HCl into the atmosphere in excess of 2.0E-02 lb per MMBtu of heat input. [40 CFR 63.7575 subpart DDDDD, Table 2]

d. Sulfur Oxides (SOx) – The Permittee shall not discharge into the atmosphere from any any single source of emissions whatsoever sulfur oxides, calculated as sulfur dioxide (SO2) in excess of 1,000 ppm. [*District Rule 104(E)*]

e. Carbon Monoxide (CO)
   i. Volumetric Limit – The Permittee shall not discharge CO into the atmosphere in excess of 720 ppm by volume on a dry basis corrected to 3% oxygen (30-day rolling average) [*40 CFR 63.7500*]
   ii. Tier Limits for PSD Compliance – The Permittee shall not discharge CO in excess of the limits shown in Table 4.0 below. [*District Rule 102(E) and District Authority to Construct dated 12/2/86 and reissued on 5/30/90 and 9/24/91*]

Table 4.0 Device S-1 (Boiler A) - Carbon Monoxide Emission Limits

Tier	Lb CO/MMBTU 24-Hour Average	Allowable Frequency in Each Tier for Each Month
1	1.2	CO emissions may not exceed the Tier 1 limit except as noted below for Tier 2 and Tier 3.
2	1.2 < x ≤ 2.0	CO emissions shall not occur in the Tier 2 *and* Tier 3 ranges for more than eight (8) 24-hour averages each month.
3	2.0 < x ≤ 3.0	CO emissions shall not occur in the Tier 3 range for more than three (3) 24-hour averages each month.

f. Nitrogen Oxides - The Permittee shall not discharge nitrogen oxides (as NO_2) into the atmosphere in excess of the limits shown in Table 5.0 below. [*District Rule 110(H)(10) and District Authority to Construct dated 12/2/86 and reissued on 5/30/90 and 9/24/91*]

Table 5.0 Device S-1 (Boiler A) - Nitrogen Oxides Emission Limits

Tier	Lb NOx/MMBTU 24-Hour Average	Allowable Frequency in Each Tier for Each Month
1	0.20	NOx emissions may not exceed the Tier 1 limit except as noted below for Tier 2 and Tier 3.
2	0.20 < x ≤ 0.22	NOx emissions shall not occur in the Tier 2 *and* Tier 3 ranges for more than eight (8) 24 hour averages each month.
3	0.22 < x ≤ 0.26	NOx emissions shall not occur in the Tier 3 range for more than three (3) 24 hour averages each month.

Annual Emission Limits

26. The Permittee shall not discharge from Boiler A (S-1) such that the emissions of PM, NOx, CO, VOC, SOx, HCl, or Hg exceed the limits per calendar year shown in Table 6.0 below.

Table 6.0 – Annual Emission Limits (Boiler A)

Pollutant	Emission Rate (Tons/Year)
PM	41.2
NOx	215.3
CO	1553.3
VOC	17.5
SOx	25.7
HCl	19.6
Hg	0.0036

COMPLIANCE TESTING & MONITORING

27. The Permittee shall collect all applicable monitoring data as required under 40 CFR §63.7535, 40 CFR 64.3, and the *Site-Specific Monitoring Plan*.

28. The Permittee shall demonstrate applicable continuous compliance as required under 40 CFR §63.7540.

29. Within 180 days after the initial startup of Device S-1 with the newly constructed control device C-1 (Multiclone), the Permittee shall conduct performance testing in accordance with this section to verify compliance with particulate matter emission limits, and to establish the operating range (minimum/maximum differential pressure drop) for device C-1.

30. The Permittee shall conduct the following applicable performance tests for S-1 (Boiler A), in accordance with 40 CFR §63.7520, on an annual basis, and no more than 13 months after the previous test. The Permittee shall cause an independent party, which is CARB certified, to conduct the performance tests. Testing shall only be conducted while greater than 90% of the heat input to the device is derived from wood waste. [*District Rule 504(D), 40 CFR 63.7515(a)*] Compliance for sulfur oxides and volatile organic chemicals emissions will be conducted utilizing AP-42 emission factors and fuel throughputs to determine the mass of emissions.
    a. Filterable PM
        i. EPA Method 5 or 17 at 40 CFR 60, Appendix A-3 or A-6.
    b. Total PM
        i. CARB Method 5, if the compliance test result is less than one-half of the permitted limit, then the next year compliance test may be waived by the District.
    c. Hydrogen chloride

i. EPA Method 26 or 26A at 40 CFR 60, Appendix A-8

d. Mercury
   i. EPA Method 29, 30A, or 30B at 40 CFR 60, Appendix A-8; or
   ii. EPA Method 101A at 40 CFR 61, Appendix B; or
   iii. ASTM Method D6784.

e. Carbon monoxide, nitrogen oxides, particulate matter, and oxygen:
   i. The Permittee shall operate at all times a continuous emissions monitoring system (CEMS) for the determination of carbon monoxide, nitrogen oxides, and oxygen from device S-1 (Boiler A).
   ii. The Permittee shall operate at all times a continuous opacity monitoring system (COMS) for the determination of particulate matter from device S-1 (Boiler A)
   iii. The CEMS shall be operated in conformance with 40 CFR 60, Appendix B, Performance Specifications and Appendix F, Quality Assurance Procedures.
   iv. The COMS shall be operated in conformance with 40 CFR 60, Appendix B, Performance Specifications and Appendix F, Quality Assurance Procedures.
   v. Monitoring shall be conducted in accordance with 40 CFR 60.13

f. Quality Assurance (COMS)
   i. In order to verify compliance with emission limits, the Permittee shall perform Relative Response Audits and Response Correlation Audits on the COMS system in conformance with 40 CFR 60, Appendix B, Performance Specifications and Appendix F, Quality Assurance Procedures.

g. Annual Relative Accuracy Test Audit (RATA)
   i. In order to verify compliance with emission limits, the Permittee shall perform an annual Relative Accuracy Test Audit (RATA) for carbon monoxide, nitrogen oxides, and oxygen on the CEMS.

31. Should performance tests for Hg, HCl, or FPM for at least 2 consecutive years show that emissions are at or below 75 percent of the emission limit, and if there are no changes in the operation of the individual boiler or process heater or air pollution control equipment that could increase emissions, permittee may conduct performance tests for the pollutant every third year. Each such performance test shall be conducted no more than 37 months after the previous performance test. [40 CFR 63.7515(b)]

32. All performance tests shall be conducted at an operating capacity of 90% or greater of the maximum capacity, rating, or design specification of the unit as identified in the Authorized Equipment Section of this permit, or under conditions determined by the APCO to most challenge the emission control equipment. The Permittee may request that the equipment be tested under alternative operating parameters (e.g. different flow rate, production rate, feed rate). Any such request shall be submitted pursuant to this permit. Testing using alternate parameters may result in modifications to operational limits as determined by the APCO. [*NCUAQMD Rule 102(E)*]

33. The Permittee shall report facility operating conditions, including the status of process and control systems, which occurred during the performance tests. The Permittee shall record

and include in the final report the following operational parameters taken during compliance testing: [*District Rule 504(D) and Rule 102(E)*]

a. Device S-1 (Boiler A):
    i. Boiler steam rate (lbs/hour),
    ii. Wood fuel moisture content (%),
    iii. Percent overfire air (%),
    iv. Wood waste input (BDT and MMBtu/hour), and
    v. Fuel oil input (gallons and MMBtu/hour).
    vi. Multiclone differential pressure drop (inches)
b. Electrostatic Precipitator (ESP):
    i. Primary and secondary amperage of the Transformer Rectifier (TR) set
    ii. Primary and secondary voltage of the Transformer Rectifier (TR) set
    iii. Spark rate in each ESP field

34. The Permittee shall provide written notification to the District identifying the date the Authorized Equipment is to undergo testing for purposes of satisfying provisions of this Permit. The APCO shall be notified no later than 30 days prior to testing and the notification shall include a compliance testing plan. The plan shall be subject to APCO review and approval. Testing conducted without an APCO-approved plan may be considered invalid or inadequate for compliance purposes. [*NCUAQMD Rule 102(E)*]

35. The Permittee shall report the results of performance tests within 60 days after the completion of the tests. The report must also verify that the operating limits for S-1 (Boiler A) have not changed or provide documentation of revised operating limits established according to 40 CFR §63.7530 and Table 7 of the subpart, as applicable. [*40 CFR §63.7515(f)*]

36. The Permittee shall operate the CEMS and COMS units in accordance with the performance specification requirements of 40 CFR Part 60, Appendix B.

37. The Permittee shall comply with the applicable requirements for quality assurance testing and maintenance of the CEMS and COMS equipment in accordance with the procedures and guidance specified in 40 CFR Part 60, Appendix F.

38. The Permittee shall conduct a tune-up of S-1 (Boiler A) every five years, as specified in 40 CFR §63.7540(a)(12). Each annual tune-up must be conducted no more than 61 months after the previous tune-up. If S-1 is not operating on the required date for a tune-up, the tune-up must be conducted within 30 calendar days of Startup. [*40 CFR §63.7515(d), 40 CFR §63.7540(a)(13)*]

RECORDKEEPING & REPORTING

39. The Permittee shall collect, maintain, and provide to the Administrator all monitoring data as applicable in 40 CFR 63.7535.

40. The Permittee shall submit to the District all applicable reports as required under 40 CFR §63.7550.

41. The Permittee shall keep all applicable records required under 40 CFR §63.7555.

42. The Permittee shall maintain and preserve all records per the applicable standards required under 40 CFR §63.7560.

43. The Permittee shall record S-1 (Boiler A) operational parameters as listed in Table 7.0 below. [*NCUAQMD Rule 102(E)*]

Table 7.0 Recordkeeping (Boiler A)

Frequency	Information to be recorded
At All Times	A. Exhaust gas temperature (degrees Fahrenheit) B. Opacity data, from averages of samples collected every 15 seconds, averaged over periods of 6-minute increments
Upon Occurrence	C. Maintenance or repairs performed D. Equipment breakdown or malfunction E. Date, start time, and end time of each excess emission event F. Date, start time, and end time of each Startup and Shutdown event G. Date, start time, and end time of any period during which the COMS or CEMS is inoperative H. Type and amount of fuels used during each startup and shutdown I. Time clean fuel combustion begins, time when non-clean fuel feed begins, time when useful thermal energy is first supplied, and time when PM controls are engaged during Startup events J. Hourly steam temperature, hourly steam pressure, hourly steam flow, hourly flue gas temperature, and all hourly CMS data during Startup events. K. Performance testing, evaluations, calibration checks, adjustments, and maintenance of COMS or CEMS L. Quantification of excess emissions upon occurrence
Hourly	M. C-2 (ESP) rapper control panel status N. C-2 (ESP) transformer rectifier set current O. C-2 (ESP) transformer rectifier set voltage P. C-2 (ESP) spark rate of each section Q. Quantity of steam produced (KPPH) R. Hourly average emissions: NOx, CO, O_2 (lb/MMBtu)
Daily	S. S-1 (Boiler A) hours of operation T. Quantity of Wood Waste & Natural Vegetation (BDT, MMBtu) combusted in S-1 (Boiler A) U. Quantity of diesel fuel oil (gallons) combusted in S-1 (Boiler A) V. Quantity of paper waste (lbs) combusted in S-1 (Boiler A) W. Daily block average emissions: CO, NOx, O_2 (lb/MMBtu), Opacity X. C-1 (Multiclone) Differential Pressure Readings Y. 30-day rolling average (Oxygen)

Frequency	Information to be recorded
Monthly	Z. Quantity of Wood Waste (BDT, MMBtu) combusted in S-1 (Boiler A) AA. Quantity of diesel fuel oil (gallons) combusted in S-1 (Boiler A) BB. Quantity of Natural Vegetation (BDT, MMBtu) combusted in S-1 (Boiler A) CC. Quantity of Paper Waste (Tons, MMBtu) combusted in S-1 (Boiler A) DD. Quantity of steam produced (KPPH) EE. Number of days operated in each 24-hour tier range for CO and NOx. FF. Quantity of emission (tons): PM, NOx, CO, VOC, SOx, O_2 GG. Quantity of emissions (tons): HCl, Mercury
Annually	HH. Annual capacity factor for diesel fuel oil II. Quantity of Wood Waste (BDT, MMBtu) combusted in S-1 (Boiler A) JJ. Quantity of diesel fuel oil (gallons) combusted in S-1 (Boiler A) KK. Quantity of Natural Vegetation (BDT, MMBtu) combusted in S-1 (Boiler A) LL. Quantity of Paper Waste (Tons, MMBtu) combusted in S-1 (Boiler A) MM. Quantity of steam produced (KPPH) NN. Quantity of emissions (tons): PM, NOx, CO, VOC, SOx OO. Quantity of emissions (tons): HCl, Mercury

44. The Permittee shall submit the following reports to the District according to the interval listed in Table 8.0 below.

Table 8.0 Facility Wide - Reporting

Frequency	Information to be Reported
Upon occurrence	A. All occurrences of excess emissions in accordance with the timing requirements of District Rule 105(D) Equipment Breakdown and Rule 502(I) Emergency Events. B. Testing and Calibration results for fuel volume meter (diesel). C. C-2 (ESP) maintenance, inspections, and repairs: i. Identification of the equipment ii. Date of inspection iii. Corrective action taken iv. Identification of the individual performing inspection

Frequency	Information to be Reported
Monthly - by the 15th of the following month	D. Identify any deviation from permit requirements, including a summary of those deviations attributable to breakdowns reported in accordance with District Rule 105(D). E. Daily block average emissions: CO, NOx (lb/MMBtu). F. Daily block average: Opacity. G. Daily six-minute average reports. H Hourly O_2% average reports. I. Number of days operated in each tier range for CO and NOx. J. Hourly average steam production for S-1 (Boiler A), averaged over the calendar month. K. Quantity of diesel oil (gallons) combusted by S-1 (Boiler A). L. Quantity of Wood Waste (BDT, MMBtu) combusted in S-1 (Boiler A)
Yearly – by January 30th of the following year	N. Quantity of emissions (tons): PM, NOx, CO, VOC, SOx O. Quantity of emissions (tons): HCl, Mercury P. Number of operating days of S-1 (Boiler A) Q. Quantity of steam produced (KPPH) R. Quantity of diesel oil (gallons) combusted in S-1 (Boiler A) S. Quantity of Wood Waste (BDT, MMBtu) combusted in S-1 (Boiler A) T. Calculation of the annual capacity factor for diesel oil [*40 CFR 60.49b(d)*] U. Activity of Insignificant Emission Units

45. The Permittee shall maintain a *Breakdown Log* that describes the breakdown or malfunction, includes the date and time of the malfunction, the cause of the malfunction, corrective actions taken to minimize emissions, and the date and time when the malfunction was corrected. [*District Rule 105(D)*]

46. The Permittee shall obtain and maintain at the affected facility fuel receipts from the fuel supplier that certify that the oil meets the definition of distillate oil as defined in 60.41b and the applicable sulfur limit. [40 CFR §60.45b]

47. The Permittee shall immediately record the following information when an event occurs in which emissions from the equipment listed under the Authorized Equipment section of this permit are in excess of any limits incorporated within this permit, or in violation of District Rules:
    a. Date and time of the excess emission event;
    b. Duration of the excess emission event;
    c. Description of the condition or circumstance causing or contributing to the excess emission event;
    d. Emission unit or control device or monitor affected;
    e. Estimation of the quantity and type of pollutants released;
    f. Description of corrective action taken; and
    g. Actions taken to prevent reoccurrence of excess emission event.

48. The Permittee shall provide to the APCO a completed *Compliance Certification Form*, signed by the facility's Responsible Official, which certifies the compliance status of the facility, twice per calendar year. The *Compliance Certification Form* must be submitted to

the District according to the following schedule: the semiannual certification (covering quarters 1 and 2) must be submitted prior to July 31st of the reporting year, and the annual certification (covering quarters 1, 2, 3, and 4) prior to March 1st of the following calendar year. The content of the Certification shall include copies of the records designated in Table 7.0 (Recordkeeping) to be kept annually.

49. For each month, the Permittee shall submit a written report to the APCO detailing the following items for the operation of each CEMS and/or COMS. The report shall conform to the requirements of District Rules and Regulations Appendix B, Section (B)(2), and shall be submitted within 30 days of the end of the month.
    a. Time stamp/intervals for all data points;
    b. Date and magnitude of excess emissions;
    c. Nature and cause of excess (if known);
    d. Corrective actions taken and preventive measures adopted;
    e. Averaging period used for data reporting shall correspond to the averaging period for each respective emission standard;
    f. Applicable time and date of each period during which the CEM was inoperative (except for zero and span checks) and the nature of system repairs and adjustments; and
    g. A negative declaration when no excess emissions occurred.

50. The Permittee shall continuously maintain the records required in this section for the most recent five-year period. Records shall be retained on site, either at a central location or at the equipment's location, and shall be made immediately available to the District staff upon request. [*NCUAQMD Rule 102(E)*]

LOCALLY ENFORCEABLE OPERATIONAL CONDITION

51. The Permittee shall prepare emission inventory plans, develop site-specific inventories of both criteria and toxic pollutants, and conduct health risk assessments as required by the Air Toxics "Hot Spots" Information and Assessment Act of 1987 (HSC 44300-44394) and the Regulation for the Reporting of Criteria Air Pollutants and Toxic Air Contaminants. [H&SC 44382]

52. The Permittee shall provide the District with internet-based access to poll and receive electronic data from the CEMS and COMS for device S-1 ("Remote Polling"). Permittee shall make CEMS and COMS data available for automatic polling of the daily records. Permittee shall make hourly records available for manually polling within no more than a one-hour delay. Upon notice by the District that the facility's polling system is not operating, Permittee shall provide data using a District approved alternative format and method for up to a maximum of thirty (30) days. The polling data is not a substitute for other required recordkeeping or reporting. [Settlement Agreement dated April 19, 2017]

Permit Number: #001262-1

Name: Boiler B

AUTHORIZED EQUIPMENT

1. This Permit supplements existing District Permit Number NS-074, issued for the operation of Device S-2 (Boiler 2), the wood-fired boiler. Upon the first fire of the unit after the construction and modifications authorized pursuant to District Authority to Construct Permit 001262-1 are completed; the Permittee shall operate Device S-2 in accordance with this permit.

2. This permit authorizes the operation of the following equipment shown in Table 1.0 below: [*District Rule 102(B)*]

Table 1.0 - Authorized Process Equipment

Device S-2	**Boiler B** (External Combustion Traveling Grate Stoker Boiler – Electric Generation)
SCC	10100911
Application	Generation of steam to power turbine generators
Manufacturer	Riley Stoker Company
Input Rating	235 MMBtu/hr
Output Rating	150,000 pounds of steam/hr
Fuel Type	Wood Waste (supplemented with diesel oil as needed from a 90 MMBtu/hr burner, and other authorized fuel types)
Control Device	C-4 (mechanical multiclone collector), C-5 (ESP), C-6 (forced overfire air system)
Useful Thermal Energy Threshold	See approved Startup/Shutdown Plan
Release Point	E-2

3. This permit authorizes the operation of the following control equipment shown in Table 2.0 below: [*102(B)*]

Table 2.0 Authorized Control Equipment

Device C-4	Multiclone Collector
Make / Model	Clarage 11CYT 13X Collector
Pollutant Controlled	PM
Pressure Drop	Max: TBD / Min: TBD
Emission Device Controlled	S-2 (Boiler B)
Device C-5	Electrostatic Precipitator (ESP)
Make / Model	General Electric BE1-1X20(12)-35-0-221-1T

Size	42,120 square feet collection plate area with 3 transformer/rectifier fields
Flow rate	Approx. 127,624 acfm
Max Inlet Loading	0.75 grains/dscf
Max Outlet Loading	0.017 grains/dscf (mfgr mass emission guarantee)
Rating	50 KVA, 50 KVA, and 35 KVA
Pollutant Controlled	PM
Emission Device Controlled	S-2 (Boiler B)
Stack ID	E-2
Stack Location	10 T 398.532 km E 4517.223 km N UTM NAD83
Device C-6	Forced Overfire Air System
Manufacturer	Zurn Air System
Description	Fan and piping which takes a portion of the air from the air heater that would otherwise be injected through the bottom of the combustion chamber and redirects it to the upper portion of the combustion chamber.
Operation	Operated to optimize the combustion and minimize CO emissions. It is adjusted by the boiler operator based on monitoring of CO levels and visual observation of combustion.
Pollutants controlled	CO, NOx
Emission Device Controlled	S-2 (Boiler B)

4. This permit authorizes the operation of the following monitoring equipment shown in Table 3.0 below. The substitution with equivalent devices may occur if approval from the APCO is received prior to their installation and the devices are incorporated into the Facility's *Device Operational and Maintenance Plan*. [*District Rule 102(B)*]

Table 3.0 Authorized Monitoring Equipment

Device	**CEM and COM Systems**
Manufacturers	CEMEX 200 CEM System NOx Analyzer - Thermo Scientific Model 42i-LS CO Analyzer – Thermo Scientific Model 48i O_2 Analyzer - Bran-Gaus Model 4705, single range COM - Teledyne Monitor Labs Model 560
Pollutants Monitored	NOx, CO, O_2, Opacity
Source Monitored	Device S-2 (Boiler B)

5. The Permittee shall install, operate, and maintain a non-resettable fuel volume meter according to manufacturer's recommendations to measure the amount of diesel fuel oil combusted by the supplemental diesel fuel oil burner of Device S-2 (Boiler B). The measuring devices shall be tested/calibrated at least once every 24 months. Measuring devices shall be tested/calibrated at more frequent intervals if necessary to ensure compliance. [District Rule 102(E)]

6. Prior to initiation of operations of device C-4 (Multiclone), the Permittee shall install, calibrate, operate, and maintain equipment necessary to record pressure drop across Device C-4 (inches of water) allowing for continuous measurement/display, recorded at least once every calendar day.

7. The Permittee shall operate, at all times, including during periods of Startup and Shutdown, a continuous opacity monitoring system (COMS) meeting the standards set forth in 40 CFR 63.7540. The COMS shall determine the relative opacity of Device S-2 (Boiler B) exhaust gases. The COMS shall be operated in such a manner as to conform with the requirements of 40 CFR Part 60, Appendix B, Performance Specification. Calibration checks shall be performed in accordance with 40 CFR 60.13. [40 CFR 60.49b and 40 CFR 63.7500]

8. The Permittee shall operate at all times, including during periods of Startup and Shutdown, a continuous emissions monitoring system (CEMS) for the determination of carbon monoxide, nitrogen oxides, and oxygen emissions from Device S-2 (Boiler B). The CEMS shall be operated in conformance with 40 CFR Part 60, Appendix B, Performance Specifications, and Appendix F, Quality Assurance procedures. Calibration checks shall be performed in accordance with 40 CFR 60.13. [*40 CFR 60.49b and 40 CFR 63.7500*]

9. The Permittee shall install points of access to the Authorized Process Equipment, Control Equipment, and Monitoring Equipment such that compliance testing in accordance with the appropriate reference test methods can be performed. All points of access shall conform to the latest Cal-OSHA safety standards. For purposes of compliance with this part, appropriate test methods shall mean the test methods identified in the "Compliance Testing and Monitoring" section of this permit and the collection of gas samples with a portable NOx, CO, and O_2 analyzer. Sample collection ports shall be located in accordance with 40 CFR Part 60 Appendix A, and with the CARB document entitled *California Air Resources Board Air Monitoring Quality Assurance Volume VI, Standard Operating Procedures for Stationary Emission Monitoring and Testing*. [*NCUAQMD Rule 102(E) and 103(A)*]

OPERATIONAL CONDITIONS

10. The Permittee shall operate S-2 (Boiler B) such that the quantity of diesel fuel oil combusted in S-2 does not exceed the lesser of the following:
    a. 10% of the annual capacity factor for a calendar year; and
    b. 1.47 million gallons per calendar year. [*40 CFR 60.44b(d)*]

11. The Permittee shall operate S-2 (Boiler B) such that steam production does not exceed any of the following:
    a. 150,000 pounds per hour;
    b. 407,000 pounds per hour total for Boiler A (S-1), Boiler B (S-2), and Boiler C (S-3) on a monthly average basis;
    c. 1,314.0 million pounds per calendar year.

12. The Permittee shall only operate S-2 (Boiler B) using one of the following fuels:

a. Wood Waste as defined as: Wood, wood residue, bark, or any derivative fuel or residue thereof, including, but not limited to, sawdust, sanderdust, wood chips, millings, shavings, and processed pellets made from wood residue provided it is not treated with any chemicals. Painted wood is allowable provided that the paint is tested for lead. Lumber painted with lead based paints shall not be burned in the boiler;
b. Diesel Fuel Oil with a nitrogen content of 0.30 weight percent or less;
c. Paper Wastes, as defined, not to exceed 1 ton per day and must be less than 10% of the volume of wastes burned per hour; or
d. Natural Vegetation as defined as: All plants, including but not limited to grasses, tree, shrubs, bushes, canes, leaves, flowers, or vines that grow in the wild or under cultivation. Natural vegetation excludes vegetative materials that have been processed, treated, or preserved with chemicals for subsequent human or animal use, including but not limited to chemically-treated timber, wood products, or paper products
e. Any combination of a) through d) above.

13. The Permittee shall conduct periods of Startup according to the applicable work practice standards of 40 CFR 63.7500 including the following:
    a. CMS as authorized in Table 3.0 must be operated during Startup;
    b. For Startup of a boiler or process heater, Permittee must use one or a combination of the following clean fuels: distillate oil, paper, cardboard, clean dry biomass, or any combination of authorized fuels meeting the appropriate HCl, mercury, and TSM emission standard by fuel analysis.
    c. HSC has chosen to and shall comply with paragraph (2) of the definition of Startup and shall therefore comply with the following work practice standard.
        i. Once Permittee begins to feed fuels that are not clean fuels, they must vent emissions to the main stack(s) and engage all of the applicable control devices so as to comply with the emission limits with 4 hours of start of supplying useful thermal energy. They must engage and operate PM controls within one hour of first feeding fuels that are not clean fuels. They must start all applicable control devices as expeditiously as possible, but, in any case, when necessary to comply with other standards applicable to the source by a permit limit or a rule other than this subpart that require operation of the control devices. They must develop and implement a written Startup and Shutdown plan, as specified in § 63.7505(e).

14. The Permittee shall conduct periods of Shutdown according to the applicable work practice standards of 40 CFR 63.7500 including the following:
    a. CMS as authorized in Table 3.0 must be operated during Shutdown;
    b. While firing fuels that are not clean fuels during Shutdown, Permittee must vent emissions to the main stack(s) and operate all applicable control devices.
    c. If, in addition to the fuel used prior to initiation of Shutdown, another fuel must be used to support the Shutdown process, that additional fuel must be one or a combination of the following clean fuels: distillate oil, paper, cardboard, clean dry biomass, or any combination of authorized fuels meeting the appropriate HCl, mercury, and TSM emission standard by fuel analysis.

15. The Permittee shall operate and maintain the Authorized Control Equipment and Authorized Monitoring Equipment at all times that fuel is being combusted in S-2 (Boiler B), including during periods of Startup and Shutdown, and in accordance with manufacturer's recommendations, the *Device Operational Plan*, and *Device Maintenance & Replacement Plan*, and all applicable regulations.

16. The Permittee shall operate C-4 (Multiclone) such that while S-2 (Boiler B) is in operation, including startup and shutdown events, the differential pressure drop across C-4 shall be within the operating range identified during the initial particulate matter performance test required pursuant to this Authority to Construct permit. The operating range during normal operations shall be defined in the required *Device Operational Plan*. The operating range during startup and shutdown shall be defined in the required *Startup, Shutdown, and Malfunction Plan*. [*NCUAQMD Rule 102(E)*]

17. The Permittee shall continuously maintain C-5 (ESP) in accordance with manufacturer's recommendations, the *Device Operational Plan,* the *Device Maintenance and Replacement Plan*, and the requirements of this section which shall include but not be limited to the following:
    a. Inspection of each ESP rapper at least once per day. The inspection shall consist of a visual inspection of the rapper control settings and status lights. Individual rappers found to be out of service shall be identified and appropriate repairs performed on the rappers.
        i. Permittee shall repair rappers that fail due to temporary short circuit or circuit overload that blow a fuse within 2 working days of identification;
        ii. Permittee shall repair working rappers that fail due to an electric/electronic part within 30 days of identification; and
        iii. These repair dates may be adjusted upon approval of the APCO.
    b. Inspection of the ESP on a daily basis, according to the *Device Operational Plan,* and the *Device Maintenance and Replacement Plan*. The Inspection shall include, but not be limited to, a record of each cell voltage, amperage and spark rate.
    c. Maintain the primary and secondary current of each Transformer Rectifier (TR) set within a range, in amps, as determined from operational data obtained and as stated in the *Device Operational Plan*. An alarm shall be set in such a manner as to indicate current excursions from the established range.
    d. Maintain the primary and secondary voltage of each Transformer Rectifier (TR) set within a range, in volts, as determined from operational data obtained and as stated in the *Device Operational Plan*. An alarm shall be set in such a manner as to indicate voltage excursions from the established range.
    e. Maintain the spark rate in each ESP field within a range in sparks/minute as stated in the *Device Operational Plan*. An alarm shall be set in such a manner as to indicate spark rate excursions from the established range.
    f. The ESP shall be maintained leak-free.

18. The Permittee shall operate the C-5 (ESP) automatic rapping system, electric fields, and corona power levels, to maximize collection efficiency and minimize particulate re-entrainment, according to the manufacturer's specifications, and as identified in the *Device Operational Plan* and *Device Maintenance & Replacement Plan*.

19. The Permittee shall take immediate corrective action to restore compliant operation upon detection of a malfunction or breakdown condition that causes or may cause a violation of any emissions limitation, as established in this permit or in District rules. [*NCUAQMD Rule 110(H)(10)*]

20. The Permittee shall maintain all ducting, housings, fans, chambers, exhaust stacks, and waste transfer and collection points in a leak-free state during all times of operation. Emissions of exhaust gases visible to the unaided human eye shall not occur at any point upstream of the final release point (stack). All material collected by C-4 (multiclone) and C-5 (ESP) shall be kept in an enclosed container.

21. The Permittee shall develop, implement, and maintain a *Compliance Assurance Monitoring Plan* in accordance with 40 CFR Part 64. The plan shall be submitted to the APCO within 120 days after initial startup of Device S-2 with newly installed control Device C-4 (Multiclones). The Permittee shall fully implement the plan elements effective the date of approval by the APCO.

22. The Permittee shall implement, and maintain a written *Startup, Shutdown, and Malfunction Plan* as described in 40 CFR Part 63.6(e)(3) that contains specific procedures for maintaining the authorized equipment, associated control devices, associated CEMS, sensors, measuring devices, during periods of Startup, Shutdown, and malfunction. The plan must clearly describe the Startup and Shutdown sequence procedure for each unit. The plan shall also include a specific program of corrective actions to be implemented in the event of a malfunction in either the process or control systems. The plan shall be submitted to the APCO within 120 days after the permit renewal date and is subject to APCO approval. Modifications to the plan are subject to APCO approval and the Permittee shall not operate the authorized equipment and their associated control devices unless an APCO-approved *Startup, Shutdown, and Malfunction Plan* is in effect.

23. The Permittee shall implement, and maintain a written *Device Operational Plan* that contains specific procedures for operating the authorized equipment, associated control devices, associated CEMS, sensors, and measuring devices. The plan shall be consistent with the requirements of this permit, and all local, state and federal laws, rules, and regulations. The plan shall include, but not be limited to, daily system integrity inspections and the recording of operational parameters. The plan shall be submitted to the APCO within 120 days after the permit renewal date and is subject to APCO approval. Modifications to the plan are subject to APCO approval and the Permittee shall not operate the authorized equipment and their associated control devices unless an APCO-approved *Device Operational Plan* is in effect. *[NCUAQMD Rule 102(E)]*

24. The Permittee shall implement, and maintain a written *Device Maintenance & Replacement Plan* that contains specific procedures for equipment maintenance and identifies replacement intervals for components of the authorized equipment, associated control devices, associated CEMS, sensors, and measuring devices. The plan shall be submitted to the APCO within 120 days after the permit renewal date and is subject to APCO approval. Modifications to the plan are subject to APCO approval and the Permittee shall not operate the authorized equipment and their associated control devices unless an APCO-approved *Device Maintenance & Replacement Plan* is in effect. *[NCUAQMD Rule*

102(E)]

EMISSION LIMITATIONS

25. The Permittee shall not discharge pollutants into the atmosphere from S-2 (Boiler B), release point E-2 in excess of the following emission limits:
    a. Particulate Matter (PM)
        i. Particulate loading – The Permittee shall not discharge from filterable particulate matter from release point E-2 into the atmosphere in excess of 0.034 pounds per million Btu of heat input. [*40 CFR 63.7500*]
        ii. The permittee shall not discharge particulate matter into the atmosphere from release point E-2 (Boiler Stack B) in excess of 0.04 lb/mmBTU. [Rule 110(E)(1), ATC dated 12-2-1986, and reissued 5-30-1990, 9-24-1991, and 1-31-2017]
        iii. The Permittee shall not discharge particulate matter into the atmosphere from release point E-2 (Boiler Stack B) in excess of 0.1 grains per standard cubic foot of exhaust gas, calculated to 12% carbon dioxide. [*NCUAQMD Rule 104(C)(2)*]
        iv. Visible Emissions – The Permittee shall not discharge into the atmosphere from release point E-2 exhaust gases that exhibit greater than 20 percent opacity (6-minute average), except for one 6-minute period per hour of not more than 27 percent opacity. The opacity standard listed in this section applies at all times except during periods of Startup and Shutdown. [*40 CFR 60.43b(f), District Rule 104(B)(3) and District ATC/PSD dated 12/2/86 and reissued on 5/30/90 and 9/24/91*]
        v. Visible Emissions – The Permittee shall not discharge into the atmosphere from release point E-2 exhaust gases that exhibit greater than 10 percent opacity calculated as a daily block average. [*40 CFR 63.7500*]
        vi. Visible Emissions – The Permittee shall not cause to be discharged into the atmosphere from any source whatsoever any air contaminant for a period or periods aggregating more than three (3) minutes in any one hour which is as dark or darker in shade as that designated as No. 1 on the Ringelmann Chart, as published by the United States Bureau of Mines; or of such opacity as to obscure an observers view to a degree equal to or greater than Ringelmann 2 or forty (40) percent opacity for more than twelve (12) individual readings recorded during any one hour period. This exemption does not apply to emissions which exceed a period or periods of time aggregating more than 30 minutes in any 24-hour period, or which result from the failure to operate and maintain in good working order any emission control equipment. [*HSC 41701, HSC 41704 (n)*]

    b. Mercury (Hg) – The Permittee shall not discharge Hg into the atmosphere in excess of 5.4E-06 lb per MMBtu of heat input. [40 CFR 63.7575 subpart DDDDD, Table 2]

    c. Hydrogen Chloride (HCl) – The Permittee shall not discharge HCl into the atmosphere in excess of 2.0E-02 lb per MMBtu of heat input. [40 CFR 63.7575 subpart DDDDD, Table 2]

d. Sulfur Oxides (SOx) – The Permittee shall not discharge into the atmosphere from any any single source of emissions whatsoever sulfur oxides, calculated as sulfur dioxide (SO2) in excess of 1,000 ppm. [*District Rule 104(E)*]

e. Carbon Monoxide (CO)
   i. Volumetric Limit – The Permittee shall not discharge CO into the atmosphere in excess of 720 ppm by volume on a dry basis corrected to 3% oxygen (30-day rolling average) [*40 CFR 63.7500*]
   ii. Tier Limits for PSD Compliance – The Permittee shall not discharge CO in excess of the limits shown in Table 4.0 below. [*District Rule 102(E) and District Authority to Construct dated 12/2/86 and reissued on 5/30/90 and 9/24/91*]

Table 4.0 Device S-2 (Boiler B) - Carbon Monoxide Emission Limits

Tier	Lb CO/MMBTU 24-Hour Average	Allowable Frequency in Each Tier for Each Month
1	1.2	CO emissions may not exceed the Tier 1 limit except as noted below for Tier 2 and Tier 3.
2	1.2 < x ≤ 2.0	CO emissions shall not occur in the Tier 2 *and* Tier 3 ranges for more than eight (8) 24-hour averages each month.
3	2.0 < x ≤ 3.0	CO emissions shall not occur in the Tier 3 range for more than three (3) 24-hour averages each month.

f. Nitrogen Oxides - The Permittee shall not discharge nitrogen oxides (as NO_2) into the atmosphere in excess of the limits shown in Table 5.0 below. [*District Rule 110(H)(10) and District Authority to Construct dated 12/2/86 and reissued on 5/30/90 and 9/24/91*]

Table 5.0 Device S-2 (Boiler B) - Nitrogen Oxides Emission Limits

Tier	Lb NOx/MMBTU 24-Hour Average	Allowable Frequency in Each Tier for Each Month
1	0.20	NOx emissions may not exceed the Tier 1 limit except as noted below for Tier 2 and Tier 3.
2	0.20 < x ≤ 0.22	NOx emissions shall not occur in the Tier 2 *and* Tier 3 ranges for more than eight (8) 24 hour averages each month.
3	0.22 < x ≤ 0.26	NOx emissions shall not occur in the Tier 3 range for more than three (3) 24 hour averages each month.

Annual Emission Limits

26. The Permittee shall not discharge from Boiler B (S-2) such that the emissions of PM, NOx, CO, VOC, SOx, HCl, or Hg exceed the limits per calendar year shown in Table 6.0 below.

Table 6.0 – Annual Emission Limits (Boiler B)

Pollutant	Emission Rate (Tons/Year)
PM	41.2
NOx	215.3
CO	1553.3
VOC	17.5
SOx	25.7
HCl	19.6
Hg	0.0036

COMPLIANCE TESTING & MONITORING

27. The Permittee shall collect all applicable monitoring data as required under 40 CFR §63.7535, 40 CFR 64.3, and the *Site-Specific Monitoring Plan*.

28. The Permittee shall demonstrate applicable continuous compliance as required under 40 CFR §63.7540.

29. Within 180 days after the initial startup of Device S-2 with the newly constructed control device C-4 (Multiclone), the Permittee shall conduct performance testing in accordance with this section to verify compliance with particulate matter emission limits, and to establish the operating range (minimum/maximum differential pressure drop) for device C-4.

30. The Permittee shall conduct the following applicable performance tests for S-2 (Boiler B), in accordance with 40 CFR §63.7520, on an annual basis, and no more than 13 months after the previous test. The Permittee shall cause an independent party, which is CARB certified, to conduct the performance tests. Testing shall only be conducted while greater than 90% of the heat input to the device is derived from wood waste. [*District Rule 504(D), 40 CFR 63.7515(a)*] Compliance for sulfur oxides and volatile organic chemicals emissions will be conducted utilizing AP-42 emission factors and fuel throughputs to determine the mass of emissions.
    a. Filterable PM
        i. EPA Method 5 or 17 at 40 CFR 60, Appendix A-3 or A-6.
    b. Total PM
        i. CARB Method 5, if the compliance test result is less than one-half of the permitted limit, then the next year compliance test may be waived by the District.
    c. Hydrogen chloride

i. EPA Method 26 or 26A at 40 CFR 60, Appendix A-8

d. Mercury
   i. EPA Method 29, 30A, or 30B at 40 CFR 60, Appendix A-8; or
   ii. EPA Method 101A at 40 CFR 61, Appendix B; or
   iii. ASTM Method D6784.

e. Carbon monoxide, nitrogen oxides, particulate matter, and oxygen:
   i. The Permittee shall operate at all times a continuous emissions monitoring system (CEMS) for the determination of carbon monoxide, nitrogen oxides, and oxygen from device S-2 (Boiler B).
   ii. The Permittee shall operate at all times a continuous opacity monitoring system (COMS) for the determination of particulate matter from device S-2 (Boiler B)
   iii. The CEMS shall be operated in conformance with 40 CFR 60, Appendix B, Performance Specifications and Appendix F, Quality Assurance Procedures.
   iv. The COMS shall be operated in conformance with 40 CFR 60, Appendix B, Performance Specifications and Appendix F, Quality Assurance Procedures.
   v. Monitoring shall be conducted in accordance with 40 CFR 60.13

f. Quality Assurance (COMS)
   i. In order to verify compliance with emission limits, the Permittee shall perform Relative Response Audits and Response Correlation Audits on the COMS system in conformance with 40 CFR 60, Appendix B, Performance Specifications and Appendix F, Quality Assurance Procedures.

g. Annual Relative Accuracy Test Audit (RATA)
   i. In order to verify compliance with emission limits, the Permittee shall perform an annual Relative Accuracy Test Audit (RATA) for carbon monoxide, nitrogen oxides, and oxygen on the CEMS.

31. Should performance tests for Hg, HCl, or FPM for at least 2 consecutive years show that emissions are at or below 75 percent of the emission limit, and if there are no changes in the operation of the individual boiler or process heater or air pollution control equipment that could increase emissions, permittee may conduct performance tests for the pollutant every third year. Each such performance test shall be conducted no more than 37 months after the previous performance test. [40 CFR 63.7515(b)]

32. All performance tests shall be conducted at an operating capacity of 90% or greater of the maximum capacity, rating, or design specification of the unit as identified in the Authorized Equipment Section of this permit, or under conditions determined by the APCO to most challenge the emission control equipment. The Permittee may request that the equipment be tested under alternative operating parameters (e.g. different flow rate, production rate, feed rate). Any such request shall be submitted pursuant to this permit. Testing using alternate parameters may result in modifications to operational limits as determined by the APCO. [*NCUAQMD Rule 102(E)*]

33. The Permittee shall report facility operating conditions, including the status of process and control systems, which occurred during the performance tests. The Permittee shall record

and include in the final report the following operational parameters taken during compliance testing: [*District Rule 504(D) and Rule 102(E)*]

a. Device S-2 (Boiler B):
    i. Boiler steam rate (lbs/hour),
    ii. Wood fuel moisture content (%),
    iii. Percent overfire air (%),
    iv. Wood waste input (BDT and MMBtu/hour), and
    v. Fuel oil input (gallons and MMBtu/hour).
    vi. Multiclone differential pressure drop (inches)
b. Electrostatic Precipitator (ESP):
    i. Primary and secondary amperage of the Transformer Rectifier (TR) set
    ii. Primary and secondary voltage of the Transformer Rectifier (TR) set
    iii. Spark rate in each ESP field

34. The Permittee shall provide written notification to the District identifying the date the Authorized Equipment is to undergo testing for purposes of satisfying provisions of this Permit. The APCO shall be notified no later than 30 days prior to testing and the notification shall include a compliance testing plan. The plan shall be subject to APCO review and approval. Testing conducted without an APCO-approved plan may be considered invalid or inadequate for compliance purposes. [*NCUAQMD Rule 102(E)*]

35. The Permittee shall report the results of performance tests within 60 days after the completion of the tests. The report must also verify that the operating limits for S-2 (Boiler B) have not changed or provide documentation of revised operating limits established according to 40 CFR §63.7530 and Table 7 of the subpart, as applicable. [*40 CFR §63.7515(f)*]

36. The Permittee shall operate the CEMS and COMS units in accordance with the performance specification requirements of 40 CFR Part 60, Appendix B.

37. The Permittee shall comply with the applicable requirements for quality assurance testing and maintenance of the CEMS and COMS equipment in accordance with the procedures and guidance specified in 40 CFR Part 60, Appendix F.

38. The Permittee shall conduct a tune-up of S-2 (Boiler B) every five years, as specified in 40 CFR §63.7540(a)(12). Each annual tune-up must be conducted no more than 61 months after the previous tune-up. If S-2 is not operating on the required date for a tune-up, the tune-up must be conducted within 30 calendar days of Startup. [*40 CFR §63.7515(d), 40 CFR §63.7540(a)(13)*]

RECORDKEEPING & REPORTING

39. The Permittee shall collect, maintain, and provide to the Administrator all monitoring data as applicable in 40 CFR 63.7535.

40. The Permittee shall submit to the District all applicable reports as required under 40 CFR §63.7550.

41. The Permittee shall keep all applicable records required under 40 CFR §63.7555.

42. The Permittee shall maintain and preserve all records per the applicable standards required under 40 CFR §63.7560.

43. The Permittee shall record S-2 (Boiler B) operational parameters as listed in Table 7.0 below. [*NCUAQMD Rule 102(E)*]

Table 7.0 Recordkeeping (Boiler B)

Frequency	Information to be recorded
At All Times	A. Exhaust gas temperature (degrees Fahrenheit) B. Opacity data, from averages of samples collected every 15 seconds, averaged over periods of 6-minute increments
Upon Occurrence	C. Maintenance or repairs performed D. Equipment breakdown or malfunction E. Date, start time, and end time of each excess emission event F. Date, start time, and end time of each Startup and Shutdown event G. Date, start time, and end time of any period during which the COMS or CEMS is inoperative H. Type and amount of fuels used during each startup and shutdown I. Time clean fuel combustion begins, time when non-clean fuel feed begins, time when useful thermal energy is first supplied, and time when PM controls are engaged during Startup events J. Hourly steam temperature, hourly steam pressure, hourly steam flow, hourly flue gas temperature, and all hourly CMS data during Startup events. K. Performance testing, evaluations, calibration checks, adjustments, and maintenance of COMS or CEMS L. Quantification of excess emissions upon occurrence
Hourly	M. C-5 (ESP) rapper control panel status N. C-5 (ESP) transformer rectifier set current O. C-5 (ESP) transformer rectifier set voltage P. C-5 (ESP) spark rate of each section Q. Quantity of steam produced (KPPH) R. Hourly average emissions: NOx, CO, O_2 (lb/MMBtu)
Daily	S. S-2 (Boiler B) hours of operation T. Quantity of Wood Waste & Natural Vegetation (BDT, MMBtu) combusted in S-2 (Boiler B) U. Quantity of diesel fuel oil (gallons) combusted in S-2 (Boiler B) V. Quantity of paper waste (lbs) combusted in S-2 (Boiler B) W. Daily block average emissions: CO, NOx, O_2 (lb/MMBtu), Opacity X. C-4 (Multiclone) Differential Pressure Readings Y. 30-day rolling average (Oxygen)

Frequency	Information to be recorded
Monthly	Z. Quantity of Wood Waste (BDT, MMBtu) combusted in S-2 (Boiler B) AA. Quantity of diesel fuel oil (gallons) combusted in S-2 (Boiler B) BB. Quantity of Natural Vegetation (BDT, MMBtu) combusted in S-2 (Boiler B) CC. Quantity of Paper Waste (Tons, MMBtu) combusted in S-2 (Boiler B) DD. Quantity of steam produced (KPPH) EE. Number of days operated in each 24-hour tier range for CO and NOx. FF. Quantity of emission (tons): PM, NOx, CO, VOC, SOx, O_2 GG. Quantity of emissions (tons): HCl, Mercury
Annually	HH. Annual capacity factor for diesel fuel oil II. Quantity of Wood Waste (BDT, MMBtu) combusted in S-2 (Boiler B) JJ. Quantity of diesel fuel oil (gallons) combusted in S-2 (Boiler B) KK. Quantity of Natural Vegetation (BDT, MMBtu) combusted in S-2 (Boiler B) LL. Quantity of Paper Waste (Tons, MMBtu) combusted in S-2 (Boiler B) MM. Quantity of steam produced (KPPH) NN. Quantity of emissions (tons): PM, NOx, CO, VOC, SOx OO. Quantity of emissions (tons): HCl, Mercury

44. The Permittee shall submit the following reports to the District according to the interval listed in Table 8.0 below.

Table 8.0 Facility Wide - Reporting

Frequency	Information to be Reported
Upon occurrence	A. All occurrences of excess emissions in accordance with the timing requirements of District Rule 105(D) Equipment Breakdown and Rule 502(I) Emergency Events. B. Testing and Calibration results for fuel volume meter (diesel). C. C-5 (ESP) maintenance, inspections, and repairs: i. Identification of the equipment ii. Date of inspection iii. Corrective action taken iv. Identification of the individual performing inspection

Frequency	Information to be Reported
Monthly - by the 15th of the following month	D. Identify any deviation from permit requirements, including a summary of those deviations attributable to breakdowns reported in accordance with District Rule 105(D). E. Daily block average emissions: CO, NOx (lb/MMBtu). F. Daily block average: Opacity. G. Daily six-minute average reports. H Hourly O_2% average reports. I. Number of days operated in each tier range for CO and NOx. J. Hourly average steam production for S-2 (Boiler B), averaged over the calendar month. K. Quantity of diesel oil (gallons) combusted by S-2 (Boiler B). L. Quantity of Wood Waste (BDT, MMBtu) combusted in S-2 (Boiler B)
Yearly – by January 30th of the following year	N. Quantity of emissions (tons): PM, NOx, CO, VOC, SOx O. Quantity of emissions (tons): HCl, Mercury P. Number of operating days of S-2 (Boiler B) Q. Quantity of steam produced (KPPH) R. Quantity of diesel oil (gallons) combusted in S-2 (Boiler B) S. Quantity of Wood Waste (BDT, MMBtu) combusted in S-2 (Boiler B) T. Calculation of the annual capacity factor for diesel oil [*40 CFR 60.49b(d)*] U. Activity of Insignificant Emission Units

45. The Permittee shall maintain a *Breakdown Log* that describes the breakdown or malfunction, includes the date and time of the malfunction, the cause of the malfunction, corrective actions taken to minimize emissions, and the date and time when the malfunction was corrected. [*District Rule 105(D)*]

46. The Permittee shall obtain and maintain at the affected facility fuel receipts from the fuel supplier that certify that the oil meets the definition of distillate oil as defined in 60.41b and the applicable sulfur limit. [40 CFR §60.45b]

47. The Permittee shall immediately record the following information when an event occurs in which emissions from the equipment listed under the Authorized Equipment section of this permit are in excess of any limits incorporated within this permit, or in violation of District Rules:
    a. Date and time of the excess emission event;
    b. Duration of the excess emission event;
    c. Description of the condition or circumstance causing or contributing to the excess emission event;
    d. Emission unit or control device or monitor affected;
    e. Estimation of the quantity and type of pollutants released;
    f. Description of corrective action taken; and
    g. Actions taken to prevent reoccurrence of excess emission event.

48. The Permittee shall provide to the APCO a completed *Compliance Certification Form*, signed by the facility's Responsible Official, which certifies the compliance status of the facility, twice per calendar year. The *Compliance Certification Form* must be submitted to

the District according to the following schedule: the semiannual certification (covering quarters 1 and 2) must be submitted prior to July 31st of the reporting year, and the annual certification (covering quarters 1, 2, 3, and 4) prior to March 1st of the following calendar year. The content of the Certification shall include copies of the records designated in Table 7.0 (Recordkeeping) to be kept annually.

49. For each month, the Permittee shall submit a written report to the APCO detailing the following items for the operation of each CEMS and/or COMS. The report shall conform to the requirements of District Rules and Regulations Appendix B, Section (B)(2), and shall be submitted within 30 days of the end of the month.
    a. Time stamp/intervals for all data points;
    b. Date and magnitude of excess emissions;
    c. Nature and cause of excess (if known);
    d. Corrective actions taken and preventive measures adopted;
    e. Averaging period used for data reporting shall correspond to the averaging period for each respective emission standard;
    f. Applicable time and date of each period during which the CEM was inoperative (except for zero and span checks) and the nature of system repairs and adjustments; and
    g. A negative declaration when no excess emissions occurred.

50. The Permittee shall continuously maintain the records required in this section for the most recent five-year period. Records shall be retained on site, either at a central location or at the equipment's location, and shall be made immediately available to the District staff upon request. [*NCUAQMD Rule 102(E)*]

LOCALLY ENFORCEABLE OPERATIONAL CONDITION

51. The Permittee shall prepare emission inventory plans, develop site-specific inventories of both criteria and toxic pollutants, and conduct health risk assessments as required by the Air Toxics "Hot Spots" Information and Assessment Act of 1987 (HSC 44300-44394) and the Regulation for the Reporting of Criteria Air Pollutants and Toxic Air Contaminants. [H&SC 44382]

52. The Permittee shall provide the District with internet-based access to poll and receive electronic data from the CEMS and COMS for device S-2 ("Remote Polling"). Permittee shall make CEMS and COMS data available for automatic polling of the daily records. Permittee shall make hourly records available for manually polling within no more than a one-hour delay. Upon notice by the District that the facility's polling system is not operating, Permittee shall provide data using a District approved alternative format and method for up to a maximum of thirty (30) days. The polling data is not a substitute for other required recordkeeping or reporting. [Settlement Agreement dated April 19, 2017]

Permit Number: #001263-1

Name: Boiler C

AUTHORIZED EQUIPMENT

1. This Permit supplements existing District Permit Number NS-074, issued for the operation of Device S-3 (Boiler C), the wood-fired boiler. Upon the first fire of the unit after the construction and modifications authorized pursuant to District Authority to Construct Permit 001263-1 are completed; the Permittee shall operate Device S-3 in accordance with this permit.

2. This permit authorizes the operation of the following equipment shown in Table 1.0 below: [*District Rule 102(B)*]

Table 1.0 - Authorized Process Equipment

Device S-3	**Boiler C** (External Combustion Traveling Grate Stoker Boiler – Electric Generation)
SCC	10100911
Application	Generation of steam to power turbine generators
Manufacturer	Riley Stoker Company
Input Rating	235 MMBtu/hr
Output Rating	150,000 pounds of steam/hr
Fuel Type	Wood Waste (supplemented with diesel oil as needed from a 90 MMBtu/hr burner, and other authorized fuel types)
Control Device	C-7 (multiclone collector), C-8 (ESP), C-9 (forced overfire air system)
Useful Thermal Energy Threshold	See approved Startup/Shutdown Plan
Release Point	E-3

3. This permit authorizes the operation of the following control equipment shown in Table 2.0 below: [*102(B)*]

Table 2.0 Authorized Control Equipment

Device C-7	Multiclone Collector
Make / Model	Clarage 11CYT 13X Collector
Pollutant Controlled	PM
Pressure Drop	Max: TBD / Min: TBD
Emission Device Controlled	S-3 (Boiler C)
Device C-8	Electrostatic Precipitator (ESP)
Make / Model	General Electric BE1-1X20(12)-35-0-221-1T

Size	42,120 square feet collection plate area with 3 transformer/rectifier fields
Flow rate	Approx. 127,624 acfm
Max Inlet Loading	0.75 grains/dscf
Max Outlet Loading	0.017 grains/dscf (mfgr mass emission guarantee)
Rating	50 KVA, 50 KVA, and 35 KVA
Pollutant Controlled	PM
Emission Device Controlled	S-3 (Boiler C)
Stack ID	E-3
Stack Location	10 T 398.532 km E 4517.223 km N UTM NAD83
Device C-9	Forced Overfire Air System
Manufacturer	Zurn Air System
Description	Fan and piping which takes a portion of the air from the air heater that would otherwise be injected through the bottom of the combustion chamber and redirects it to the upper portion of the combustion chamber.
Operation	Operated to optimize the combustion and minimize CO emissions. It is adjusted by the boiler operator based on monitoring of CO levels and visual observation of combustion.
Pollutants controlled	CO, NOx
Emission Device Controlled	S-3 (Boiler C)

4. This permit authorizes the operation of the following monitoring equipment shown in Table 3.0 below. The substitution with equivalent devices may occur if approval from the APCO is received prior to their installation and the devices are incorporated into the Facility's *Device Operational and Maintenance Plan*. [*District Rule 102(B)*]

Table 3.0 Authorized Monitoring Equipment

Device	**CEM and COM Systems**
Manufacturers	CEMEX 200 CEM System NOx Analyzer - Thermo Scientific Model 42i-LS CO Analyzer – Thermo Scientific Model 48i O_2 Analyzer - Bran-Gaus Model 4705, single range COM - Teledyne Monitor Labs Model 560
Pollutants Monitored	NOx, CO, O_2, Opacity
Source Monitored	Device S-3 (Boiler C)

5. The Permittee shall install, operate, and maintain a non-resettable fuel volume meter according to manufacturer's recommendations to measure the amount of diesel fuel oil combusted by the supplemental diesel fuel oil burner of Device S-3 (Boiler C). The measuring devices shall be tested/calibrated at least once every 24 months. Measuring devices shall be tested/calibrated at more frequent intervals if necessary to ensure compliance. [District Rule 102(E)]

6. Prior to initiation of operations of device C-7 (Multiclone), the Permittee shall install, calibrate, operate, and maintain equipment necessary to record pressure drop across Device C-7 (inches of water) allowing for continuous measurement/display, recorded at least once every calendar day.

7. The Permittee shall operate, at all times, including during periods of Startup and Shutdown, a continuous opacity monitoring system (COMS) meeting the standards set forth in 40 CFR 63.7540. The COMS shall determine the relative opacity of Device S-3 (Boiler C) exhaust gases. The COMS shall be operated in such a manner as to conform with the requirements of 40 CFR Part 60, Appendix B, Performance Specification. Calibration checks shall be performed in accordance with 40 CFR 60.13. [40 CFR 60.49b and 40 CFR 63.7500]

8. The Permittee shall operate at all times, including during periods of Startup and Shutdown, a continuous emissions monitoring system (CEMS) for the determination of carbon monoxide, nitrogen oxides, and oxygen emissions from Device S-3 (Boiler C). The CEMS shall be operated in conformance with 40 CFR Part 60, Appendix B, Performance Specifications, and Appendix F, Quality Assurance procedures. Calibration checks shall be performed in accordance with 40 CFR 60.13. [*40 CFR 60.49b and 40 CFR 63.7500*]

9. The Permittee shall install points of access to the Authorized Process Equipment, Control Equipment, and Monitoring Equipment such that compliance testing in accordance with the appropriate reference test methods can be performed. All points of access shall conform to the latest Cal-OSHA safety standards. For purposes of compliance with this part, appropriate test methods shall mean the test methods identified in the "Compliance Testing and Monitoring" section of this permit and the collection of gas samples with a portable NOx, CO, and O_2 analyzer. Sample collection ports shall be located in accordance with 40 CFR Part 60 Appendix A, and with the CARB document entitled *California Air Resources Board Air Monitoring Quality Assurance Volume VI, Standard Operating Procedures for Stationary Emission Monitoring and Testing*. [*NCUAQMD Rule 102(E) and 103(A)*]

OPERATIONAL CONDITIONS

10. The Permittee shall operate S-3 (Boiler C) such that the quantity of diesel fuel oil combusted in S-3 does not exceed the lesser of the following:
    a. 10% of the annual capacity factor for a calendar year; and
    b. 1.47 million gallons per calendar year. [*40 CFR 60.44b(d)*]

11. The Permittee shall operate S-3 (Boiler C) such that steam production does not exceed any of the following:
    a. 150,000 pounds per hour;
    b. 407,000 pounds per hour total for Boiler A (S-1), Boiler B (S-2), and Boiler C (S-3) on a monthly average basis;
    c. 1,314.0 million pounds per calendar year.

12. The Permittee shall only operate S-3 (Boiler C) using one of the following fuels:

a. Wood Waste as defined as: Wood, wood residue, bark, or any derivative fuel or residue thereof, including, but not limited to, sawdust, sanderdust, wood chips, millings, shavings, and processed pellets made from wood residue provided it is not treated with any chemicals. Painted wood is allowable provided that the paint is tested for lead. Lumber painted with lead based paints shall not be burned in the boiler;
b. Diesel Fuel Oil with a nitrogen content of 0.30 weight percent or less;
c. Paper Wastes, as defined, not to exceed 1 ton per day and must be less than 10% of the volume of wastes burned per hour; or
d. Natural Vegetation as defined as: All plants, including but not limited to grasses, tree, shrubs, bushes, canes, leaves, flowers, or vines that grow in the wild or under cultivation. Natural vegetation excludes vegetative materials that have been processed, treated, or preserved with chemicals for subsequent human or animal use, including but not limited to chemically-treated timber, wood products, or paper products
e. Any combination of a) through d) above.

13. The Permittee shall conduct periods of Startup according to the applicable work practice standards of 40 CFR 63.7500 including the following:
    a. CMS as authorized in Table 3.0 must be operated during Startup;
    b. For Startup of a boiler or process heater, Permittee must use one or a combination of the following clean fuels: distillate oil, paper, cardboard, clean dry biomass, or any combination of authorized fuels meeting the appropriate HCl, mercury, and TSM emission standard by fuel analysis.
    c. HSC has chosen to and shall comply with paragraph (2) of the definition of Startup and shall therefore comply with the following work practice standard.
        i. Once Permittee begins to feed fuels that are not clean fuels, they must vent emissions to the main stack(s) and engage all of the applicable control devices so as to comply with the emission limits with 4 hours of start of supplying useful thermal energy. They must engage and operate PM controls within one hour of first feeding fuels that are not clean fuels. They must start all applicable control devices as expeditiously as possible, but, in any case, when necessary to comply with other standards applicable to the source by a permit limit or a rule other than this subpart that require operation of the control devices. They must develop and implement a written Startup and Shutdown plan, as specified in § 63.7505(e).

14. The Permittee shall conduct periods of Shutdown according to the applicable work practice standards of 40 CFR 63.7500 including the following:
    a. CMS as authorized in Table 3.0 must be operated during Shutdown;
    b. While firing fuels that are not clean fuels during Shutdown, Permittee must vent emissions to the main stack(s) and operate all applicable control devices.
    c. If, in addition to the fuel used prior to initiation of Shutdown, another fuel must be used to support the Shutdown process, that additional fuel must be one or a combination of the following clean fuels: distillate oil, paper, cardboard, clean dry biomass, or any combination of authorized fuels meeting the appropriate HCl, mercury, and TSM emission standard by fuel analysis.

15. The Permittee shall operate and maintain the Authorized Control Equipment and Authorized Monitoring Equipment at all times that fuel is being combusted in S-3 (Boiler C), including during periods of Startup and Shutdown, and in accordance with manufacturer's recommendations, the *Device Operational Plan*, and *Device Maintenance & Replacement Plan*, and all applicable regulations.

16. The Permittee shall operate C-7 (Multiclone) such that while S-3 (Boiler C) is in operation, including startup and shutdown events, the differential pressure drop across C-7 shall be within the operating range identified during the initial particulate matter performance test required pursuant to this Authority to Construct permit. The operating range during normal operations shall be defined in the required *Device Operational Plan*. The operating range during startup and shutdown shall be defined in the required *Startup, Shutdown, and Malfunction Plan*. [*NCUAQMD Rule 102(E)*]

17. The Permittee shall continuously maintain C-8 (ESP) in accordance with manufacturer's recommendations, the *Device Operational Plan,* the *Device Maintenance and Replacement Plan*, and the requirements of this section which shall include but not be limited to the following:
    a. Inspection of each ESP rapper at least once per day. The inspection shall consist of a visual inspection of the rapper control settings and status lights. Individual rappers found to be out of service shall be identified and appropriate repairs performed on the rappers.
        i. Permittee shall repair rappers that fail due to temporary short circuit or circuit overload that blow a fuse within 2 working days of identification;
        ii. Permittee shall repair working rappers that fail due to an electric/electronic part within 30 days of identification; and
        iii. These repair dates may be adjusted upon approval of the APCO.
    b. Inspection of the ESP on a daily basis, according to the *Device Operational Plan,* and the *Device Maintenance and Replacement Plan*. The Inspection shall include, but not be limited to, a record of each cell voltage, amperage and spark rate.
    c. Maintain the primary and secondary current of each Transformer Rectifier (TR) set within a range, in amps, as determined from operational data obtained and as stated in the *Device Operational Plan*. An alarm shall be set in such a manner as to indicate current excursions from the established range.
    d. Maintain the primary and secondary voltage of each Transformer Rectifier (TR) set within a range, in volts, as determined from operational data obtained and as stated in the *Device Operational Plan*. An alarm shall be set in such a manner as to indicate voltage excursions from the established range.
    e. Maintain the spark rate in each ESP field within a range in sparks/minute as stated in the *Device Operational Plan*. An alarm shall be set in such a manner as to indicate spark rate excursions from the established range.
    f. The ESP shall be maintained leak-free.

18. The Permittee shall operate the C-8 (ESP) automatic rapping system, electric fields, and corona power levels, to maximize collection efficiency and minimize particulate re-entrainment, according to the manufacturer's specifications, and as identified in the *Device Operational Plan* and *Device Maintenance & Replacement Plan*.

19. The Permittee shall take immediate corrective action to restore compliant operation upon detection of a malfunction or breakdown condition that causes or may cause a violation of any emissions limitation, as established in this permit or in District rules. [*NCUAQMD Rule 110(H)(10)*]

20. The Permittee shall maintain all ducting, housings, fans, chambers, exhaust stacks, and waste transfer and collection points in a leak-free state during all times of operation. Emissions of exhaust gases visible to the unaided human eye shall not occur at any point upstream of the final release point (stack). All material collected by C-7 (multiclone) and C-8 (ESP) shall be kept in an enclosed container.

21. The Permittee shall develop, implement, and maintain a *Compliance Assurance Monitoring Plan* in accordance with 40 CFR Part 64. The plan shall be submitted to the APCO within 120 days after initial startup of Device S-3 with newly installed control Device C-7 (Multiclones). The Permittee shall fully implement the plan elements effective the date of approval by the APCO.

22. The Permittee shall implement, and maintain a written *Startup, Shutdown, and Malfunction Plan* as described in 40 CFR Part 63.6(e)(3) that contains specific procedures for maintaining the authorized equipment, associated control devices, associated CEMS, sensors, measuring devices, during periods of Startup, Shutdown, and malfunction. The plan must clearly describe the Startup and Shutdown sequence procedure for each unit. The plan shall also include a specific program of corrective actions to be implemented in the event of a malfunction in either the process or control systems. The plan shall be submitted to the APCO within 120 days after the permit renewal date and is subject to APCO approval. Modifications to the plan are subject to APCO approval and the Permittee shall not operate the authorized equipment and their associated control devices unless an APCO-approved *Startup, Shutdown, and Malfunction Plan* is in effect.

23. The Permittee shall implement, and maintain a written *Device Operational Plan* that contains specific procedures for operating the authorized equipment, associated control devices, associated CEMS, sensors, and measuring devices. The plan shall be consistent with the requirements of this permit, and all local, state and federal laws, rules, and regulations. The plan shall include, but not be limited to, daily system integrity inspections and the recording of operational parameters. The plan shall be submitted to the APCO within 120 days after the permit renewal date and is subject to APCO approval. Modifications to the plan are subject to APCO approval and the Permittee shall not operate the authorized equipment and their associated control devices unless an APCO-approved *Device Operational Plan* is in effect. *[NCUAQMD Rule 102(E)]*

24. The Permittee shall implement, and maintain a written *Device Maintenance & Replacement Plan* that contains specific procedures for equipment maintenance and identifies replacement intervals for components of the authorized equipment, associated control devices, associated CEMS, sensors, and measuring devices. The plan shall be submitted to the APCO within 120 days after the permit renewal date and is subject to APCO approval. Modifications to the plan are subject to APCO approval and the Permittee shall not operate the authorized equipment and their associated control devices unless an APCO-approved *Device Maintenance & Replacement Plan* is in effect. *[NCUAQMD Rule 102(E)]*

EMISSION LIMITATIONS

25. The Permittee shall not discharge pollutants into the atmosphere from S-3 (Boiler C), release point E-3 in excess of the following emission limits:
    a. Particulate Matter (PM)
        i. Particulate loading – The Permittee shall not discharge from filterable particulate matter from release point E-3 into the atmosphere in excess of 0.034 pounds per million Btu of heat input. [*40 CFR 63.7500*]
        ii. The permittee shall not discharge particulate matter into the atmosphere from release point E-3 (Boiler Stack C) in excess of 0.04 lb/mmBTU. [Rule 110(E)(1), ATC dated 12-2-1986, and reissued 5-30-1990, 9-24-1991, and 1-31-2017]
        iii. The Permittee shall not discharge particulate matter into the atmosphere from release point E-3 (Boiler Stack C) in excess of 0.1 grains per standard cubic foot of exhaust gas, calculated to 12% carbon dioxide. [*NCUAQMD Rule 104(C)(2)*]
        iv. Visible Emissions – The Permittee shall not discharge into the atmosphere from release point E-3 exhaust gases that exhibit greater than 20 percent opacity (6-minute average), except for one 6-minute period per hour of not more than 27 percent opacity. The opacity standard listed in this section applies at all times except during periods of Startup and Shutdown. [*40 CFR 60.43b(f), District Rule 104(B)(3) and District ATC/PSD dated 12/2/86 and reissued on 5/30/90 and 9/24/91*]
        v. Visible Emissions – The Permittee shall not discharge into the atmosphere from release point E-3 exhaust gases that exhibit greater than 10 percent opacity calculated as a daily block average. [*40 CFR 63.7500*]
        vi. Visible Emissions – The Permittee shall not cause to be discharged into the atmosphere from any source whatsoever any air contaminant for a period or periods aggregating more than three (3) minutes in any one hour which is as dark or darker in shade as that designated as No. 1 on the Ringelmann Chart, as published by the United States Bureau of Mines; or of such opacity as to obscure an observers view to a degree equal to or greater than Ringelmann 2 or forty (40) percent opacity for more than twelve (12) individual readings recorded during any one hour period. This exemption does not apply to emissions which exceed a period or periods of time aggregating more than 30 minutes in any 24-hour period, or which result from the failure to operate and maintain in good working order any emission control equipment. [*HSC 41701, HSC 41704 (n)*]

    b. Mercury (Hg) – The Permittee shall not discharge Hg into the atmosphere in excess of 5.4E-06 lb per MMBtu of heat input. [40 CFR 63.7575 subpart DDDDD, Table 2]

    c. Hydrogen Chloride (HCl) – The Permittee shall not discharge HCl into the atmosphere in excess of 2.0E-02 lb per MMBtu of heat input. [40 CFR 63.7575 subpart DDDDD, Table 2]

d. Sulfur Oxides (SOx) – The Permittee shall not discharge into the atmosphere from any any single source of emissions whatsoever sulfur oxides, calculated as sulfur dioxide (SO2) in excess of 1,000 ppm. [*District Rule 104(E)*]

e. Carbon Monoxide (CO)
   i. Volumetric Limit – The Permittee shall not discharge CO into the atmosphere in excess of 720 ppm by volume on a dry basis corrected to 3% oxygen (30-day rolling average) [*40 CFR 63.7500*]
   ii. Tier Limits for PSD Compliance – The Permittee shall not discharge CO in excess of the limits shown in Table 4.0 below. [*District Rule 102(E) and District Authority to Construct dated 12/2/86 and reissued on 5/30/90 and 9/24/91*]

Table 4.0 Device S-3 (Boiler C) - Carbon Monoxide Emission Limits

Tier	Lb CO/MMBTU 24-Hour Average	Allowable Frequency in Each Tier for Each Month
1	0.8	CO emissions may not exceed the Tier 1 limit except as noted below for Tier 2 and Tier 3.
2	0.8 < x ≤ 1.0	CO emissions shall not occur in the Tier 2 *and* Tier 3 ranges for more than eight (8) 24-hour averages each month.
3	1.0 < x ≤ 1.5	CO emissions shall not occur in the Tier 3 range for more than three (3) 24-hour averages each month.

f. Nitrogen Oxides - The Permittee shall not discharge nitrogen oxides (as NO_2) into the atmosphere in excess of the limits shown in Table 5.0 below. [*District Rule 110(H)(10) and District Authority to Construct dated 12/2/86 and reissued on 5/30/90 and 9/24/91*]

Table 5.0 Device S-3 (Boiler C) - Nitrogen Oxides Emission Limits

Tier	Lb NOx/MMBTU 24-Hour Average	Allowable Frequency in Each Tier for Each Month
1	0.22	NOx emissions may not exceed the Tier 1 limit except as noted below for Tier 2 and Tier 3.
2	0.22 < x ≤ 0.25	NOx emissions shall not occur in the Tier 2 *and* Tier 3 ranges for more than eight (8) 24 hour averages each month.
3	0.25 < x ≤ 0.30	NOx emissions shall not occur in the Tier 3 range for more than three (3) 24 hour averages each month.

Annual Emission Limits

26. The Permittee shall not discharge from Boiler C (S-3) such that the emissions of PM, NOx, CO, VOC, SOx, HCl, or Hg exceed the limits per calendar year shown in Table 6.0 below.

Table 6.0 – Annual Emission Limits (Boiler C)

Pollutant	Emission Rate (Tons/Year)
PM	41.2
NOx	239.6
CO	928.3
VOC	17.5
SOx	25.7
HCl	19.6
Hg	0.0036

COMPLIANCE TESTING & MONITORING

27. The Permittee shall collect all applicable monitoring data as required under 40 CFR §63.7535, 40 CFR 64.3, and the *Site-Specific Monitoring Plan*.

28. The Permittee shall demonstrate applicable continuous compliance as required under 40 CFR §63.7540.

29. Within 180 days after the initial startup of Device S-3 with the newly constructed control device C-7 (Multiclone), the Permittee shall conduct performance testing in accordance with this section to verify compliance with particulate matter emission limits, and to establish the operating range (minimum/maximum differential pressure drop) for device C-7.

30. The Permittee shall conduct the following applicable performance tests for S-3 (Boiler C), in accordance with 40 CFR §63.7520, on an annual basis, and no more than 13 months after the previous test. The Permittee shall cause an independent party, which is CARB certified, to conduct the performance tests. Testing shall only be conducted while greater than 90% of the heat input to the device is derived from wood waste. [*District Rule 504(D), 40 CFR 63.7515(a)*] Compliance for sulfur oxides and volatile organic chemicals emissions will be conducted utilizing AP-42 emission factors and fuel throughputs to determine the mass of emissions.
    a. Filterable PM
        i. EPA Method 5 or 17 at 40 CFR 60, Appendix A-3 or A-6.
    b. Total PM
        i. CARB Method 5, if the compliance test result is less than one-half of the permitted limit, then the next year compliance test may be waived by the District.
    c. Hydrogen chloride

i. EPA Method 26 or 26A at 40 CFR 60, Appendix A-8

d. Mercury
   i. EPA Method 29, 30A, or 30B at 40 CFR 60, Appendix A-8; or
   ii. EPA Method 101A at 40 CFR 61, Appendix B; or
   iii. ASTM Method D6784.

e. Carbon monoxide, nitrogen oxides, particulate matter, and oxygen:
   i. The Permittee shall operate at all times a continuous emissions monitoring system (CEMS) for the determination of carbon monoxide, nitrogen oxides, and oxygen from device S-3 (Boiler C).
   ii. The Permittee shall operate at all times a continuous opacity monitoring system (COMS) for the determination of particulate matter from device S-3 (Boiler C)
   iii. The CEMS shall be operated in conformance with 40 CFR 60, Appendix B, Performance Specifications and Appendix F, Quality Assurance Procedures.
   iv. The COMS shall be operated in conformance with 40 CFR 60, Appendix B, Performance Specifications and Appendix F, Quality Assurance Procedures.
   v. Monitoring shall be conducted in accordance with 40 CFR 60.13

f. Quality Assurance (COMS)
   i. In order to verify compliance with emission limits, the Permittee shall perform Relative Response Audits and Response Correlation Audits on the COMS system in conformance with 40 CFR 60, Appendix B, Performance Specifications and Appendix F, Quality Assurance Procedures.

g. Annual Relative Accuracy Test Audit (RATA)
   i. In order to verify compliance with emission limits, the Permittee shall perform an annual Relative Accuracy Test Audit (RATA) for carbon monoxide, nitrogen oxides, and oxygen on the CEMS.

31. Should performance tests for Hg, HCl, or filterable particulate matter for at least 2 consecutive years show that emissions are at or below 75 percent of the emission limit, and if there are no changes in the operation of the individual boiler or process heater or air pollution control equipment that could increase emissions, permittee may conduct performance tests for the pollutant every third year. Each such performance test shall be conducted no more than 37 months after the previous performance test. [40 CFR 63.7515(b)]

32. All performance tests shall be conducted at an operating capacity of 90% or greater of the maximum capacity, rating, or design specification of the unit as identified in the Authorized Equipment Section of this permit, or under conditions determined by the APCO to most challenge the emission control equipment. The Permittee may request that the equipment be tested under alternative operating parameters (e.g. different flow rate, production rate, feed rate). Any such request shall be submitted pursuant to this permit. Testing using alternate parameters may result in modifications to operational limits as determined by the APCO. [*NCUAQMD Rule 102(E)*]

33. The Permittee shall report facility operating conditions, including the status of process and control systems, which occurred during the performance tests. The Permittee shall record

and include in the final report the following operational parameters taken during compliance testing: [*District Rule 504(D) and Rule 102(E)*]

a. Device S-3 (Boiler C):
    i. Boiler steam rate (lbs/hour),
    ii. Wood fuel moisture content (%),
    iii. Percent overfire air (%),
    iv. Wood waste input (BDT and MMBtu/hour), and
    v. Fuel oil input (gallons and MMBtu/hour).
    vi. Multiclone differential pressure drop (inches)
b. Electrostatic Precipitator (ESP):
    i. Primary and secondary amperage of the Transformer Rectifier (TR) set
    ii. Primary and secondary voltage of the Transformer Rectifier (TR) set
    iii. Spark rate in each ESP field

34. The Permittee shall provide written notification to the District identifying the date the Authorized Equipment is to undergo testing for purposes of satisfying provisions of this Permit. The APCO shall be notified no later than 30 days prior to testing and the notification shall include a compliance testing plan. The plan shall be subject to APCO review and approval. Testing conducted without an APCO-approved plan may be considered invalid or inadequate for compliance purposes. [*NCUAQMD Rule 102(E)*]

35. The Permittee shall report the results of performance tests within 60 days after the completion of the tests. The report must also verify that the operating limits for S-3 (Boiler C) have not changed or provide documentation of revised operating limits established according to 40 CFR §63.7530 and Table 7 of the subpart, as applicable. [*40 CFR §63.7515(f)*]

36. The Permittee shall operate the CEMS and COMS units in accordance with the performance specification requirements of 40 CFR Part 60, Appendix B.

37. The Permittee shall comply with the applicable requirements for quality assurance testing and maintenance of the CEMS and COMS equipment in accordance with the procedures and guidance specified in 40 CFR Part 60, Appendix F.

38. The Permittee shall conduct a tune-up of S-3 (Boiler C) every five years, as specified in 40 CFR §63.7540(a)(12). Each annual tune-up must be conducted no more than 61 months after the previous tune-up. If S-3 is not operating on the required date for a tune-up, the tune-up must be conducted within 30 calendar days of Startup. [*40 CFR §63.7515(d), 40 CFR §63.7540(a)(13)*]

RECORDKEEPING & REPORTING

39. The Permittee shall collect, maintain, and provide to the Administrator all monitoring data as applicable in 40 CFR 63.7535.

40. The Permittee shall submit to the District all applicable reports as required under 40 CFR §63.7550.

41. The Permittee shall keep all applicable records required under 40 CFR §63.7555.

42. The Permittee shall maintain and preserve all records per the applicable standards required under 40 CFR §63.7560.

43. The Permittee shall record S-3 (Boiler C) operational parameters as listed in Table 7.0 below. [*NCUAQMD Rule 102(E)*]

Table 7.0 Recordkeeping (Boiler C)

Frequency	Information to be recorded
At All Times	A. Exhaust gas temperature (degrees Fahrenheit) B. Opacity data, from averages of samples collected every 15 seconds, averaged over periods of 6-minute increments
Upon Occurrence	C. Maintenance or repairs performed D. Equipment breakdown or malfunction E. Date, start time, and end time of each excess emission event F. Date, start time, and end time of each Startup and Shutdown event G. Date, start time, and end time of any period during which the COMS or CEMS is inoperative H. Type and amount of fuels used during each startup and shutdown I. Time clean fuel combustion begins, time when non-clean fuel feed begins, time when useful thermal energy is first supplied, and time when PM controls are engaged during Startup events J. Hourly steam temperature, hourly steam pressure, hourly steam flow, hourly flue gas temperature, and all hourly CMS data during Startup events. K. Performance testing, evaluations, calibration checks, adjustments, and maintenance of COMS or CEMS L. Quantification of excess emissions upon occurrence
Hourly	M. C-8 (ESP) rapper control panel status N. C-8 (ESP) transformer rectifier set current O. C-8 (ESP) transformer rectifier set voltage P. C-8 (ESP) spark rate of each section Q. Quantity of steam produced (KPPH) R. Hourly average emissions: NOx, CO, O_2 (lb/MMBtu)
Daily	S. S-3 (Boiler C) hours of operation T. Quantity of Wood Waste & Natural Vegetation (BDT, MMBtu) combusted in S-3 (Boiler C) U. Quantity of diesel fuel oil (gallons) combusted in S-3 (Boiler C) V. Quantity of paper waste (lbs) combusted in S-3 (Boiler C) W. Daily block average emissions: CO, NOx, O_2 (lb/MMBtu), Opacity X. C-7 (Multiclone) Differential Pressure Readings Y. 30-day rolling average (Oxygen)

Frequency	Information to be recorded
Monthly	Z. Quantity of Wood Waste (BDT, MMBtu) combusted in S-3 (Boiler C) AA. Quantity of diesel fuel oil (gallons) combusted in S-3 (Boiler C) BB. Quantity of Natural Vegetation (BDT, MMBtu) combusted in S-3 (Boiler C) CC. Quantity of Paper Waste (Tons, MMBtu) combusted in S-3 (Boiler C) DD. Quantity of steam produced (KPPH) EE. Number of days operated in each 24-hour tier range for CO and NOx. FF. Quantity of emission (tons): PM, NOx, CO, VOC, SOx, O_2 GG. Quantity of emissions (tons): HCl, Mercury
Annually	HH. Annual capacity factor for diesel fuel oil II. Quantity of Wood Waste (BDT, MMBtu) combusted in S-3 (Boiler C) JJ. Quantity of diesel fuel oil (gallons) combusted in S-3 (Boiler C) KK. Quantity of Natural Vegetation (BDT, MMBtu) combusted in S-3 (Boiler C) LL. Quantity of Paper Waste (Tons, MMBtu) combusted in S-3 (Boiler C) MM. Quantity of steam produced (KPPH) NN. Quantity of emissions (tons): PM, NOx, CO, VOC, SOx OO. Quantity of emissions (tons): HCl, Mercury

44. The Permittee shall submit the following reports to the District according to the interval listed in Table 8.0 below.

Table 8.0 Facility Wide - Reporting

Frequency	Information to be Reported
Upon occurrence	A. All occurrences of excess emissions in accordance with the timing requirements of District Rule 105(D) Equipment Breakdown and Rule 502(I) Emergency Events. B. Testing and Calibration results for fuel volume meter (diesel). C. C-8 (ESP) maintenance, inspections, and repairs: i. Identification of the equipment ii. Date of inspection iii. Corrective action taken iv. Identification of the individual performing inspection

Frequency	Information to be Reported
Monthly - by the 15th of the following month	D. Identify any deviation from permit requirements, including a summary of those deviations attributable to breakdowns reported in accordance with District Rule 105(D). E. Daily block average emissions: CO, NOx (lb/MMBtu). F. Daily block average: Opacity. G. Daily six-minute average reports. H Hourly O_2% average reports. I. Number of days operated in each tier range for CO and NOx. J. Hourly average steam production for S-3 (Boiler C), averaged over the calendar month. K. Quantity of diesel oil (gallons) combusted by S-3 (Boiler C). L. Quantity of Wood Waste (BDT, MMBtu) combusted in S-3 (Boiler C)
Yearly – by January 30th of the following year	N. Quantity of emissions (tons): PM, NOx, CO, VOC, SOx O. Quantity of emissions (tons): HCl, Mercury V. Number of operating days of S-3 (Boiler C) W. Quantity of steam produced (KPPH) X. Quantity of diesel oil (gallons) combusted in S-3 (Boiler C) Y. Quantity of Wood Waste (BDT, MMBtu) combusted in S-3 (Boiler C) Z. Calculation of the annual capacity factor for diesel oil [*40 CFR 60.49b(d)*] AA. Activity of Insignificant Emission Units

45. The Permittee shall maintain a *Breakdown Log* that describes the breakdown or malfunction, includes the date and time of the malfunction, the cause of the malfunction, corrective actions taken to minimize emissions, and the date and time when the malfunction was corrected. [*District Rule 105(D)*]

46. The Permittee shall obtain and maintain at the affected facility fuel receipts from the fuel supplier that certify that the oil meets the definition of distillate oil as defined in 60.41b and the applicable sulfur limit. [40 CFR §60.45b]

47. The Permittee shall immediately record the following information when an event occurs in which emissions from the equipment listed under the Authorized Equipment section of this permit are in excess of any limits incorporated within this permit, or in violation of District Rules:
    a. Date and time of the excess emission event;
    b. Duration of the excess emission event;
    c. Description of the condition or circumstance causing or contributing to the excess emission event;
    d. Emission unit or control device or monitor affected;
    e. Estimation of the quantity and type of pollutants released;
    f. Description of corrective action taken; and
    g. Actions taken to prevent reoccurrence of excess emission event.

48. The Permittee shall provide to the APCO a completed *Compliance Certification Form*, signed by the facility's Responsible Official, which certifies the compliance status of the facility, twice per calendar year. The *Compliance Certification Form* must be submitted to

the District according to the following schedule: the semiannual certification (covering quarters 1 and 2) must be submitted prior to July 31st of the reporting year, and the annual certification (covering quarters 1, 2, 3, and 4) prior to March 1st of the following calendar year. The content of the Certification shall include copies of the records designated in Table 7.0 (Recordkeeping) to be kept annually.

49. For each month, the Permittee shall submit a written report to the APCO detailing the following items for the operation of each CEMS and/or COMS. The report shall conform to the requirements of District Rules and Regulations Appendix B, Section (B)(2), and shall be submitted within 30 days of the end of the month.
    a. Time stamp/intervals for all data points;
    b. Date and magnitude of excess emissions;
    c. Nature and cause of excess (if known);
    d. Corrective actions taken and preventive measures adopted;
    e. Averaging period used for data reporting shall correspond to the averaging period for each respective emission standard;
    f. Applicable time and date of each period during which the CEM was inoperative (except for zero and span checks) and the nature of system repairs and adjustments; and
    g. A negative declaration when no excess emissions occurred.

50. The Permittee shall continuously maintain the records required in this section for the most recent five-year period. Records shall be retained on site, either at a central location or at the equipment's location, and shall be made immediately available to the District staff upon request. [*NCUAQMD Rule 102(E)*]

LOCALLY ENFORCEABLE OPERATIONAL CONDITION

51. The Permittee shall prepare emission inventory plans, develop site-specific inventories of both criteria and toxic pollutants, and conduct health risk assessments as required by the Air Toxics "Hot Spots" Information and Assessment Act of 1987 (HSC 44300-44394) and the Regulation for the Reporting of Criteria Air Pollutants and Toxic Air Contaminants. [H&SC 44382]

52. The Permittee shall provide the District with internet-based access to poll and receive electronic data from the CEMS and COMS for device S-3 ("Remote Polling"). Permittee shall make CEMS and COMS data available for automatic polling of the daily records. Permittee shall make hourly records available for manually polling within no more than a one-hour delay. Upon notice by the District that the facility's polling system is not operating, Permittee shall provide data using a District approved alternative format and method for up to a maximum of thirty (30) days. The polling data is not a substitute for other required recordkeeping or reporting. [Settlement Agreement dated April 19, 2017

Permit Number: #000936-2 rev. 2

Name: Dry Lumber Kilns #1-9

AUTHORIZED EQUIPMENT

1. This permit authorizes the installation and operation of the following equipment:

Table 1.0 - Authorized Process Equipment

Device S-4	**Dry Lumber Kilns #1-9**
SCC	30700898
Description	Nine identically-sized and designed dry lumber kilns (Kilns #1-4 situated on south side of planer building. Kilns #5-9 situated farther south).
Application	Steam-heated enclosures used to dry lumber
Maximum Exhaust Air Temperature	200° Fahrenheit
Release Point	Fugitive

2. The Permittee shall install, utilize, and maintain temperature gauges to adequately measure the operating air temperature in each kiln that comprises S-4 (Dry Lumber Kilns). [*NCUAQMD Rule 102(E)*]

OPERATIONAL CONDITIONS

3. The Permittee shall only process the type of lumber listed in Table 2.0 below in S-4 (Dry Lumber Kilns). [*NCUAQMD Rule 102(E)*]

4. The Permittee shall not operate S-4 (Dry Lumber Kilns) in such a manner so as to exceed the production limitations listed in Table 2.0 below:

Table 2.0 - Production Limits (Dry Lumber Kilns)

SPECIES	ANNUAL LIMIT (MMbf)
Redwood	119.7
Douglas Fir	40.1
White Fir	1.4
Pine	1.4
TOTAL (all species)	162.6

5. The Permittee shall not allow the operating air temperature of any kiln that comprises S-4 (Dry Lumber Kilns) to exceed 200 degrees Fahrenheit, as an hourly average. [*NCUAQMD Rule 102(E)*]

6. The Permittee shall keep the doors to S-4 (Dry Lumber Kilns) closed during active drying operations. [*NCUAQMD Rule 102(E)*]

7. The Permittee shall maintain all ducting, housings, fans, chambers, and exhaust stacks in a leak-free state during all times of operation. Emissions of exhaust gases visible to the unaided human eye shall not occur at any point upstream of the final release point. [*NCUAQMD Rule 102(E)*]

8. The Permittee shall develop, implement, and maintain a written *Device Operational Plan* that contains specific procedures for operating the authorized equipment and measuring devices. The plan shall be consistent with the requirements of this permit, and all local, state and federal laws, rules, and regulations. The plan shall include, but not be limited to, a program for recording operational parameters, and system integrity inspections. The plan shall be submitted to the APCO within 180 days of the issue date of this permit. Modifications to the plan are subject to APCO approval and the Permittee shall not operate the authorized equipment unless an APCO-approved *Device Operational Plan* is in effect. [*NCUAQMD Rule 102(E)*]

9. The Permittee shall take immediate corrective action to restore compliant operation upon detection of a malfunction or breakdown condition that causes or may cause a violation of any emissions limitation, as established in this permit or in District rules. [*NCUAQMD Rule 102(E)*]

EMISSION LIMITATIONS

10. The Permittee shall not discharge pollutants into the atmosphere from S-4 (Dry Lumber Kilns) in excess of the following limits of Table 3.0 below.

Table 3.0 – Dry Lumber Kilns (S-4) Emission Limits

Pollutant	Emission Rate	
	lb/hr	tons/year
PM	0.8	3.5
PM_{10}	0.8	3.5
$PM_{2.5}$	0.8	3.5
VOC	10.9	47.5

RECORDKEEPING & REPORTING

11. The Permittee shall record S-4 (Dry Lumber Kilns) operational parameters as listed in Table 4.0 below. [*NCUAQMD Rule 102(E)*]

Table 4.0 Recordkeeping – S-4 (Dry Lumber Kilns)

Frequency	Information to be recorded
Upon Occurrence	A. Maintenance or repairs performed B. Equipment breakdown or malfunction C. Date, start time, and end time of each excess emission event D. Date, start time, and end time of any hourly average operating temperature reading of 200 or greater (degrees Fahrenheit)
Hourly	E. Average operating temperature of each kiln (degrees Fahrenheit)
Monthly	F. Quantity (MMbf) of Redwood lumber processed G. Quantity (MMbf) of Douglas fir lumber processed H. Quantity (MMbf) of White fir lumber processed I. Quantity (MMbf) of Pine lumber processed J. Total quantity (MMbf) of lumber processed
Annually	K. Quantity (MMbf) of Redwood lumber processed L. Quantity (MMbf) of Douglas fir lumber processed M. Quantity (MMbf) of White fir lumber processed N. Quantity (MMbf) of Pine lumber processed O. Total quantity (MMbf) of lumber processed

12. The Permittee shall continuously record the operating air temperature, in degrees Fahrenheit, of each kiln comprising S-4 (Dry Lumber Kilns). [*NCUAQMD Rule 102(E)*]

13. The Permittee shall maintain a *Breakdown Log* that describes the breakdown or malfunction, includes the date and time of the malfunction, the cause of the malfunction, corrective actions taken to minimize emissions, and the date and time when the malfunction was corrected. [*District Rule 105(D)*]

14. The Permittee shall immediately record the following information when an event occurs in which emissions from the equipment listed under the Authorized Equipment section of this permit are in excess of any limits incorporated within this permit, or in violation of District Rules:
    a. Date and time of the excess emission event;
    b. Duration of the excess emission event;
    c. Description of the condition or circumstance causing or contributing to the excess emission event;
    d. Emission unit or control device or monitor affected;
    e. Estimation of the quantity and type of pollutants released;
    f. Description of corrective action taken; and
    g. Actions taken to prevent reoccurrence of excess emission event.

15. The Permittee shall continuously maintain the records required in this section for the most recent five-year period. Records shall be retained on site, either at a central location or at the equipment's location, and shall be made immediately available to the District staff upon request. [*NCUAQMD Rule 102(E)*]

Permit Number: #001146-2

Name: Knife Planer and Gang Trimmer

AUTHORIZED EQUIPMENT

1. This permit authorizes the installation and operation of the following equipment:

Table 3.0 Authorized Process Equipment

Device S-5	Knife Planer
Application	Wood Planing
SCC	30700805
Model	#3482 Knife Planer
Rating	100,000 BF/hr
Control Device	250 HP Pneumatic System: Cyclone 1A & 1B (C-10)
Release Point	E-4
Device S-6	Gang Trimmer
Application	Wood trimming
SCC	30700805
Model	#728 24' RH High Speed Trimmer
Rating	100,000 BF/hr
Control Device	Cyclone 1A & 1B (C-10)
Release Point	E-4
Device S-14	Pneumatic Transfer System
Application	Transfer wood chips and fines
SCC	n/a
Model	One 150 HP Blower and Two 10 HP Blowers
Rating	7,100 CFM
Control Device	Cyclone 2 (C-11) and Cyclone 3 (C-13)
Release Point(s)	E-3 and E-4

2. This permit authorizes the installation and operation of the following control equipment:

Table 4.0 Authorized Control Equipment

Device C-10	Cyclone 1A & 1B
Stack Release Height	70 ft.
Stack Diameter	7 ft. (inner)
Stack Exhaust Temp.	Ambient
Stack Flow Rate	51,500 acfm
Stack ID	E-4
Stack Location	40.4762° N, -124.1029° W
Device C-11	Cyclone 2
Stack Release Height	75 ft.
Stack Diameter	7 ft. (inner)
Stack Exhaust Temp.	Ambient
Stack Flow Rate	7,100 acfm
Stack ID	E-5
Stack Location	40.4762° N, -124.1029° W

Device C-13	Cyclone 3
Stack Release Height	75 ft.
Stack Diameter	7 ft. (inner)
Stack Exhaust Temp.	Ambient
Stack Flow Rate	7,100 acfm
Stack ID	E-11
Stack Location	40.4762° N, -124.1029° W

3. The Permittee shall maintain ducting and air movers as necessary to convey the exhaust gases from the emission devices listed in the Authorized Equipment section of this Permit to their respective control devices. [*NCUAQMD Rule 102(E)*]

4. The Permittee shall install and maintain skirting or similar device on the wood/chip storage bin used to store the waste material collected by Devices C-10 and C-11. The skirting or similar device shall facilitate the clean and direct transfer of collected material to a transport vehicle. [*NCUAQMD Rule 102(E)*]

5. The Permittee shall install a diversion gate or other physical barrier within the pneumatic conveyance system such that exhaust gases from Device C-11 and C-13 may not be discharged simultaneously.

OPERATIONAL CONDITIONS

6. The Permittee shall not operate the Authorized Equipment subject to District permit in such a manner so as to exceed the production limits listed in Table 3.0 below:

Table 3.0 - Operational Limits

DEVICE	UNITS	ANNUAL LIMIT
S-5, S-6, and S-14	Million Board Feet	416

7. The Permittee shall not operate the Authorized Equipment subject to District permit in such a manner so as to exceed the lesser of the following:
   a. The maximum capacity, rating, or design specification of the unit as identified in the Authorized Equipment section of this permit;
   b. The operational limitations specified in Table 3.0; or
   c. One hundred and ten percent (110%) of the production rate at which the plant was operated during the most recent source test where the plant demonstrated compliance with all the conditions of its respective permit.

8. The Permittee shall operate C-10 and C-11 or C-13 (Cyclones) at all times that the Knife Planer and Gang Trimmer (S-5 and S-6) are in operation.

9. The Permittee shall maintain all ducting, housings, fans, chambers, exhaust stacks, and waste transfer and collection points in a leak-free state during all times of operation. Emissions of exhaust gases visible to the unaided human eye shall not occur at any point upstream of the final release point (stack). [*NCUAQMD Rule 102(E)*]

10. The Permittee shall operate the Authorized Equipment and Control Devices such that:
    a. All leaks of exhaust gas upstream of the final discharge point shall be repaired immediately.
    b. Wood particles deposited on the roof of any building, on the ground, or elsewhere, shall be removed or controlled immediately, in accordance with an APCO-approved *Facility Dust Mitigation and Housekeeping Plan*.

11. The Permittee shall take immediate corrective action to restore compliant operation upon detection of a malfunction or breakdown condition that causes or may cause a violation of any emissions limitation, as established in this permit or in District rules. [*NCUAQMD Rule 102(E)*]

EMISSION LIMITATIONS

12. The Permittee shall not discharge pollutants into the atmosphere from the Knife Planer and Gang Trimmer Cyclone Stack (E-4, E-5, E-11) in excess of the following limits in Table 4.0 below. [*NCUAQMD Rule 102(E)*]

Table 4.0 – E-4, E-5, E-11 (Cyclone Stack) Emission Limits

Device	Pollutant	Emission Rate	
		lbs/hr	tons/yr
C-10	PM_{10}	4.2	10.8
	$PM_{2.5}$	2.5	6.4
C-11	PM_{10}	0.6	1.5
	$PM_{2.5}$	0.3	0.9
C-13	PM_{10}	0.6	1.5
	$PM_{2.5}$	0.3	0.9

13. The Permittee shall not operate the Authorized Equipment S-5, S-6, and S-14 such that the exhaust gas discharged from C-10, C-11, or C-13 is in excess of 20% opacity, or as dark or darker in shade as that designated as No. 1 on the Ringelmann Chart, calculated as a six-minute average. [*NCUAQMD Rule 104(B)(3)*]

14. The Permittee shall not operate the Authorized Equipment S-5, S-6, and S-14 such that the exhaust gas discharged from C-10, C-11, or C-13 is in excess of 0.46 grams per actual cubic meter (0.20 grains per cubic foot) of exhaust gas. [NCUAQMD Rule 104(C)(5)]

COMPLIANCE TESTING & MONITORING

15. The Permittee shall demonstrate compliance with the emission limits identified in this permit using the following methods, no less than once every three years after the initial performance test. Initial compliance testing on Device C-13 shall be completed within 180 days of initial startup. Thereafter, the compliance testing interval for C-13 shall align with the C-10 and C-11. If reported values for a pollutant are less than 50% of the permitted limits for the Device, the APCO may waive further compliance testing requirements on a device for that pollutant. The Permittee shall cause an independent party that is CARB certified to conduct the source tests. All compliance tests shall be conducted at an operating capacity of 90% or greater of the permitted production capacity as stated in this permit, or under conditions determined by the APCO to most challenge the emission control equipment. Alternative testing procedures may be used if advance approval is obtained from the APCO.
    a. Particulate Matter - Oregon DEQ Method 8, and
    b. Visible Emissions – EPA Reference Method 9. Permittee shall perform a “Visible Emission Evaluation” (VEE) concurrent with particulate matter testing.

16. Source test results shall be summarized in a written report and submitted to the District directly from the independent source testing firm on the same day, the same time, and in the same manner as submitted to Permittee, no later than 60 days after the testing is completed. [*NCUAQMD Rule 102(E)*]

RECORDKEEPING & REPORTING

17. The Permittee shall record the operational parameters for the Authorized Equipment as listed in Table 5.0 below.

Table 5.0 – Recordkeeping

Frequency	Information to be recorded for each unit
Upon Occurrence	A. Maintenance or repairs performed B. Equipment breakdown or malfunction C. Excessive emission events
Weekly	D. Equipment condition
Monthly	E. Monthly production in Million Board Feet of Knife Planer and Gang Trimmer line consisting of S-5, S-6, and S-14
Annually	F. Annual production in Million Board Feet of Knife Planer and Gang Trimmer line consisting of S-5, S-6, and S-14

19. The Permittee shall conduct weekly inspections of the Authorized Process Equipment, Authorized Control Equipment, ducting, and air movers, and shall record the condition of each, as indicated in Table 4.0 Recordkeeping. Inspections shall be conducted if the Authorized Process Equipment is in operation for any amount of time during the reporting period. [*NCUAQMD Rule 102(E)*]

20. The Permittee shall continuously maintain the records required in this section for the most recent five-year period. Records shall be retained on site, either at a central location or at the equipment's location, and shall be made immediately available to the District staff upon request. [*NCUAQMD Rule 102(E)*]

21. The Permittee shall report to the NCUAQMD any malfunction or breakdown condition as soon as reasonably possible, but no later than one hour after its detection during normal office hours (9:00 a.m. to 4:00 p.m.), or one hour after the start of the next regular business day, whichever is sooner. [*NCUAQMD Rule 105(D)*]

22. The Permittee shall report to the NCUAQMD any deviations from the requirements of this permit, including those attributable to breakdown conditions, the probable cause of the deviations, and any corrective actions or preventive measures taken. Within 10 days after occurrence, the Permittee shall report the following information regarding the event:
    a. Duration of excessive emissions,
    b. Estimation of the quantity of emissions,
    c. Statement of the cause of the occurrence, and
    d. Corrective measures taken to prevent recurrences. [*NCUAQMD Rule 105(D*]

23. The Permittee shall provide information requested by the NCUAQMD for emission inventory purposes within 30 days of receiving the request. [*NCUAQMD Rule 102(E), H&SC 42303*]

24. The Permittee shall use the emission factors listed in Table 6.0 for calculating pollutant emissions during *normal* operations of the Authorized Equipment and Control Devices unless alternative emission factors are approved by the District. The Permittee may request or the District may require alternative emission factors provided they are based on actual test data or other documentation that has been reviewed and approved by the District. [*NCUAQMD Rule 102(E)*]

Table 6.0 Emission Factors – Periods of Normal Operation

DEVICE	Pollutant	Emission Factor (EF)	EF Units
S-5, S-6, and S-14	PM10	5.4	Pounds per hour of operation
	PM2.5	3.1	Pounds per hour of operation

25. The Permittee shall use the emission factors listed in Table 7.0 for calculating pollutant emissions during *periods of malfunction and excess emission events* of the Authorized Equipment and Control Devices unless alternative emission factors are approved by the District. The Permittee may request or the District may require alternative emission factors provided they are based on actual test data or other documentation that has been reviewed and approved by the District. [*NCUAQMD Rule 102(E)*]

Table 7.0 Emission Factors – Periods of Malfunction & Excess Emission Events

DEVICE	Pollutant	Emission Factor (EF)	EF Units
S-5, S-6, and S-14	PM10	31.3	Pounds per hour of operation
	PM2.5	18.6	Pounds per hour of operation

Permit Number: #000938-2

Name: Emergency Compression Ignition Engine

AUTHORIZED EQUIPMENT

1. This permit authorizes the installation and operation of the following equipment:

Table 1.0 - Authorized Process Equipment

Device S-7	Emergency Standby Diesel CI Engine
Application	Standby Generator
SCC	20200102
Generator Model	Baldor UCI274F
Engine Model	John Deere 6068HF150
Engine Family	2JDXL06.8012 (Tier 1)
Size	251 Hp (187 kW) Standby @ 1800 rpm
Year	2002
Serial Number	PE6068H311023 (engine) / 0164876/15 (generator)
Heat Input Rate	1.7 MMBtu/hr (12.0 gal/hr)
Release Point	E-6
Stack Location	10 T 406.438 km E 4481.975 km N (UTM NAD83)

2. The Permittee shall utilize and maintain a non-resettable hour meter with a minimum display capability of 9,999 hours upon S-7 (Emergency Standby Diesel CI Engine). [*17 CCR §93115.10(d) effective May 19, 2011*]

OPERATIONAL CONDITIONS

3. The Permittee shall only operate S-7 (Emergency Standby Diesel CI Engine) using one of the following fuels:
   a. CARB Diesel Fuel, or
   b. An alternative diesel fuel that meets the requirements of the Verification Procedure (as codified in CCR Title 13 Sections 2700-2710), or
   c. CARB Diesel Fuel used with fuel additives that meets the requirements of the Verification Procedure (as codified in CCR Title 13 Sections 2700-2710), or
   d. Any combination of a) through c) above.

4. S-7 (Emergency Standby Diesel CI Engine) is authorized the following maximum allowable annual hours of operation as listed in Table 2.0 below: [*17 CCR §93115 effective May 19, 2011*]

Table 2.0 - Hours of Operation for S-7 (Emergency CI Engine)

Emergency Use	Non-Emergency Use	
	Emission Testing to show compliance	Maintenance & Testing
Not Limited by the ATCM	Not Limited by the ATCM	30 hours/year

5. The Permittee shall only operate S-7 (Emergency Standby Diesel CI Engine) in accordance with the most recent amendment of Title 17, California Code of Regulations section 93115.6(a)(3)(A), ATCM for Stationary CI Engines.

6. The Permittee shall maintain all ducting, housings, fans, chambers, and exhaust stacks in a leak-free state during all times of operation. Emissions of exhaust gases visible to the unaided human eye shall not occur at any point upstream of the final release point (stack).

7. The Permittee shall take immediate corrective action to restore compliant operation upon detection of a malfunction or breakdown condition that causes or may cause a violation of any emissions limitation, as established in this permit or in District rules. [*NCUAQMD Rule 102(E)*]

EMISSION LIMITATIONS

8. The Permittee shall not discharge pollutants into the atmosphere from S-7 (Emergency Standby Diesel CI Engine) at rates in excess of the performance standards as listed in Table 3.0 below. [*17 CCR §93115.10(d) effective May 19, 2011*]

Table 3.0 - S-7 (Emergency CI Engine) Performance Standards

Pollutant	Performance Standards
	g/bhp-hr
PM	0.40
CO	8.5
NOx	6.9
HC	1.0

9. The Permittee shall not discharge pollutants into the atmosphere from release point E-6 (Diesel CI Engine Stack) in excess of the following limits in Table 4.0 below. Emissions generated during an emergency event or during emission testing for compliance purposes shall not contribute towards the hourly or annual emission limits. [*NCUAQMD Rule 102(E)*]

Table 4.0 – E-6 (Diesel CI Engine Stack) Emission Limits

Pollutant	Emission Rate	
	lb/hr	tons/year
PM_{10}	0.22	3.32E-03
$PM_{2.5}$	0.22	3.32E-03
NOx	3.82	5.73E-02
VOC	0.55	8.30E-03
CO	4.70	7.06E-02
SOx	0.0013	1.90E-05
CO_2E	-	4.1

10. The Permittee shall not operate S-7 (Emergency Standby Diesel CI Engine) such that any air contaminant is discharged in excess of 20% opacity, or as dark or darker in shade as that designated as No. 1 on the Ringelmann Chart, calculated as a six-minute average. [*NCUAQMD Rule 104(B)(3)*]

11. The Permittee shall not discharge particulate matter into the atmosphere from release point E-6 (Diesel CI Engine Stack) in excess of 0.20 grains per cubic foot of dry gas calculated to 12% CO_2 at standard conditions. [*NCUAQMD Rule 104(C)(1)*]

COMPLIANCE TESTING & MONITORING

12. The Permittee shall have the visible emissions from the Emergency Diesel CI Engine determined using EPA Reference Method 9 (Visible Emissions Evaluation) for opacity of exhaust gases within thirty (30) days after being directed by the APCO. [*NCUAQMD Rule 102(E)*]

13. The Permittee shall determine emission rates from S-7 (Emergency Standby Diesel CI Engine) using the test methods listed in *17 CCR §93115.14(a)* within 30 days after being directed by the APCO. [*NCUAQMD Rule 102(E)*]

RECORDKEEPING & REPORTING

16. The Permittee shall record S-7 (Emergency Standby Diesel CI Engine) operational parameters as listed in Table 5.0 below. [*17 CCR §93115.10(g) effective May 19, 2011*]

Table 5.0 Recordkeeping – S-7 (Emergency CI Engine)

Frequency	Information to be recorded
Upon Occurrence	A. Maintenance or repairs performed B. Equipment breakdown or malfunction C. Excessive emission events
Monthly	D. Emergency hours of operation E. Maintenance and testing hours of operation F. Emission testing hours of operation G. Quantity (gallons) of CARB Diesel combusted
Annually	H. Emergency hours of operation I. Maintenance and testing hours of operation J. Emission testing hours of operation K. Quantity (gallons) of CARB Diesel combusted

17. The permittee shall document the use of CARB Diesel through the retention of fuel purchase records indicating that the only fuel purchased for supply to S-7 (Emergency Standby Diesel CI Engine) was CARB Diesel. [*NCUAQMD Rule 102(E)*]

18. The Permittee shall retain records required by this section for a minimum of 36 months. Records shall be retained on-site, either at a central location or at the engine's location, and shall be made immediately available to the District staff upon request. [*NCUAQMD Rule 102(E)*]

FACILITY ANNUAL EMISSION LIMITS

1. The Permittee shall not discharge pollutants from the total of the facility's permitted emission units in excess of the limits shown in the table below during any calendar year. The total facility annual emission limits apply as well as any individual device emission limits listed in this permit.

Pollutant	Emission Rate (Tons/Year)
PM	138.4
NOx	672.0
CO	4,036.7
VOC	90.7
SOx	77.1

INSIGNIFICANT EMISSIONS UNITS

1. The following systems are considered insignificant emissions units and are not subject to equipment specific requirements. However, these units are required to comply with all applicable Local Enforceable Only general requirements, District Rules, and State and Federal laws. [*District Rule 102(D)*]

Exempt Equipment	SCC	Equipment Description	Reportable Units
Cooling Tower	38500101	Mechanical Draft	Gallons of Water Cooled
Fuel Dispensing Facility	40600651	Diesel fuel pumps	Gallons of Fuel Dispensed
Fuel Storage	40400316	Aboveground Diesel tanks	Gallons of Fuel Throughput
Lube Oil Tanks	40400313	Bulk tanks (unused oil) 55 gallon drums (used oil) Holding tank (in-use oils)	Gallons of oil Throughput
Oil/Water Separator	50300713	Oil/Water Separator	Gallons of Water Treated
Confined Solvent and Paint Use	40200110	General Operations (facility wide)	Gallons of Solvent/Paint Used
Welding Shop	30900500	Welding Shop	Pounds of Welding Rod Used

AUTHORIZING SIGNATURE

NORTH COAST UNIFIED AIR QUALITY MANAGEMENT DISTRICT

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