PROPOSED

[Issuance Date]

12-xxxE CAB
File No. 0054

CERTIFIED MAIL
RETURN RECEIPT REQUESTED
(xxx)

Ms. Anna M. Skrobecki
Senior Vice President
Factory and Power Plant Operations
Hawaiian Commercial & Sugar Company
P.O. Box 266
Puunene, Hawaii 96784

Dear Ms. Skrobecki:

Subject: Covered Source Permit (CSP) No. 0054-01-C
Revised Application No. 0054-05
Hawaiian Commercial & Sugar (HC&S) Company Puunene Mill
Two (2) 212 MMBTU/hr Biomass/Oil/Coal Boilers with Multicyclone and Venturi Wet Scrubber System, One (1) 568 MMBTU/hr Biomass/Oil/Coal Boiler with Multicyclone and Venturi Wet Scrubber System, and One (1) 20,000 lb/hr Rotary Sugar Dryer with Wet Scrubber
Located at: Puunene, Hawaii
Date of Expiration: [Five (5) Years from Issuance Date]

The subject Covered Source Permit is issued in accordance with Hawaii Administrative Rules, Title 11, Chapter 60.1. The issuance of this permit is based on the plans, specifications, and information submitted as part of your revised application dated April 13, 2007 and supplemental information dated August 30, September 8, 2010, and June 24, 2011.

The Covered Source Permit is issued subject to the conditions/requirements set forth in the following Attachments:

Attachment I: Standard Conditions
Attachment IIA: Special Conditions – Boilers
Attachment IIB: Special Conditions – Diesel Engines and Diesel Engine Generators
Attachment II-Insig: Special Conditions - Insignificant Activities
Attachment III: Annual Emission Reporting Requirements
Attachment IV: Annual Fee Requirements

The following forms are enclosed for some of the monitoring and reporting required by this Covered Source Permit:

Compliance Certification Form
Annual Emissions Report Form: Boilers
Diesel Engines and Diesel Engine Generators
Monitoring Report Form(s): Visible Emissions
Fuel Oil Consumption and Certification
Specification Used Oil Certification
Changing Oil: Diesel Engines and
Diesel Engine Generators
Monitoring/Annual Emissions Report Form: Sugar Dryer Production
Monitoring/Annual Emissions Report Form: Boilers 1 and 2 Bagasse
Monitoring/Annual Emissions Report Form: Boiler 3 Bagasse
Monitoring/Annual Emissions Report Form: Boilers 1 and 2 Coal
Monitoring/Annual Emissions Report Form: Boiler 3 Coal
Boiler 3 Excess Emissions and Monitoring System Performance Summary Report
Visible Emissions Form Requirements – State of Hawaii

Also enclosed for your use are the Visible Emissions Observation Form Requirements with the following enclosure:

Visible Emissions Form

This Permit: (a) shall not in any manner affect the title of the premises upon which the equipment is to be located; (b) does not release the permittee from any liability for any loss due to personal injury or property damage caused by, resulting from or arising out of the design, installation, maintenance, or operation of the equipment; and (c) in no manner implies or suggests that the Department of Health, or its officers, agents, or employees, assumes any liability, directly or indirectly, for any loss due to personal injury or property damage caused by, resulting from or arising out of the design, installation, maintenance, or operation of the equipment.

Sincerely,

STUART YAMADA, P.E., CHIEF
Environmental Management Division

GN:nn
Enclosures

c: Blake Shiigi, EHS - Maui
CAB Monitoring Section

PROPOSED

ATTACHMENT I: STANDARD CONDITIONS
COVERED SOURCE PERMIT NO. 0054-01-C

Issuance Date: **Expiration Date:**

This permit is granted in accordance with the Hawaii Administrative Rules (HAR), Title 11, Chapter 60.1, Air Pollution Control, and is subject to the following standard conditions:

1. Unless specifically identified, the terms and conditions contained in this permit are consistent with the applicable requirement, including form, on which each term or condition is based.

   (Auth.: HAR §11-60.1-90)

2. This permit, or a copy thereof, shall be maintained at or near the source and shall be made available for inspection upon request. The permit shall not be willfully defaced, altered, forged, counterfeited, or falsified.

   (Auth.: HAR §11-60.1-6; SIP §11-60-11)[2]

3. This permit is not transferable whether by operation of law or otherwise, from person to person, from place to place, or from one piece of equipment to another without the approval of the Department of Health, except as provided in HAR, Section 11-60.1-91.

   (Auth.: HAR §11-60.1-7; SIP §11-60-9)[2]

4. A request for transfer from person to person shall be made on forms furnished by the Department of Health.

   (Auth.: HAR §11-60.1-7)

5. In the event of any changes in control or ownership of the facilities to be constructed or modified, this permit 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, copies of which will be forwarded to the Department of Health and the U.S. Environmental Protection Agency (EPA), Region 9.

   (Auth.: HAR §11-60.1-5, §11-60.1-7, §11-60.1-94)

6. The facility covered by this permit shall be constructed and operated in accordance with the application, and any information submitted as part of the application, for the Covered Source Permit. There shall be no deviation unless additional or revised plans are submitted to and approved by the Department of Health, and the permit is amended to allow such deviation.

   (Auth.: HAR §11-60.1-2, §11-60.1-4, §11-60.1-82, §11-60.1-84, §11-60.1-90)

7. This permit (a) does not release the permittee from compliance with other applicable statutes of the State of Hawaii, or with applicable local laws, regulations, or ordinances, and

(b) shall not constitute, nor be construed to be an approval of the design of the covered source.

(Auth.: HAR §11-60.1-5, §11-60.1-82)

8. The permittee shall comply with all the terms and conditions of this permit. Any permit noncompliance constitutes a violation of HAR, Chapter 11-60.1 and the Clean Air Act and is grounds for enforcement action; for permit termination, suspension, reopening, or amendment; or for denial of a permit renewal application.

   (Auth.: HAR §11-60.1-3, §11-60.1-10, §11-60.1-19, §11-60.1-90)

9. If any term or condition of this permit becomes invalid as a result of a challenge to a portion of this permit, the other terms and conditions of this permit shall not be affected and shall remain valid.

   (Auth.: HAR §11-60.1-90)

10. The permittee shall not use as a defense in an enforcement action that it would have been necessary to halt or reduce the permitted activity to maintain compliance with the terms and conditions of this permit.

    (Auth.: HAR §11-60.1-90)

11. This permit may be terminated, suspended, reopened, or amended for cause pursuant to HAR, Sections, 11-60.1-10 and 11-60.1-98, and Hawaii Revised Statutes (HRS), Chapter 342B-27, after affording the permittee an opportunity for a hearing in accordance with HRS, Chapter 91.

    (Auth.: HAR §11-60.1-3, §11-60.1-10, §11-60.1-90, §11-60.1-98)

12. The filing of a request by the permittee for the termination, suspension, reopening, or amendment of this permit, or of a notification of planned changes or anticipated noncompliance does not stay any permit condition.

    (Auth.: HAR §11-60.1-90)

13. This permit does not convey any property rights of any sort, or any exclusive privilege.

    (Auth.: HAR §11-60.1-90)

14. The permittee shall notify the Department of Health and U.S. EPA, Region 9, in writing of the following dates:

    a. The **anticipated date of initial start-up** for each emission unit of a new source or significant modification not more than sixty (60) days or less than thirty (30) days prior to such date;

b. The **actual date of construction commencement** within fifteen (15) days after such date; and
c. The **actual date of start-up** within fifteen (15) days after such date.

(Auth.: HAR §11-60.1-90)

15. The permittee shall furnish, in a timely manner, any information or records requested in writing by the Department of Health to determine whether cause exists for terminating, suspending, reopening, or amending this permit, or to determine compliance with this permit. Upon request, the permittee shall also furnish to the Department of Health copies of records required to be kept by the permittee. For information claimed to be confidential, the Director of Health may require the permittee to furnish such records not only to the Department of Health but also directly to the U.S. EPA, Region 9, along with a claim of confidentiality.

(Auth.: HAR §11-60.1-14, §11-60.1-90)

16. The permittee shall notify the Department of Health in writing, of the **intent to shut down air pollution control equipment for necessary scheduled maintenance** at least twenty-four (24) hours prior to the planned shutdown. The submittal of this notice shall not be a defense to an enforcement action. The notice shall include the following:

a. Identification of the specific equipment to be taken out of service, as well as its location and permit number;
b. The expected length of time that the air pollution control equipment will be out of service;
c. The nature and quantity of emissions of air pollutants likely to be emitted during the shutdown period;
d. Measures such as the use of off-shift labor and equipment that will be taken to minimize the length of the shutdown period; and
e. The reasons why it would be impossible or impractical to shut down the source operation during the maintenance period.

(Auth.: HAR §11-60.1-15; SIP §11-60-16)[2]

17. **Except for emergencies which result in noncompliance with any technology-based emission limitation in accordance with HAR, Section 11-60.1-16.5, in the event any emission unit, air pollution control equipment, or related equipment malfunctions or breaks down in such a manner as to cause the emission of air pollutants in violation of HAR, Chapter 11-60.1 or this permit**, the permittee shall immediately notify the Department of Health of the malfunction or breakdown, unless the protection of personnel or public health or safety demands immediate attention to the malfunction or breakdown and makes such notification infeasible. In the latter case, the notice shall be provided as soon as practicable. Within five (5) working days of this initial notification, the permittee shall also submit, in writing, the following information:

a. Identification of each affected emission point and each emission limit exceeded;
b. Magnitude of each excess emission;
c. Time and duration of each excess emission;
d. Identity of the process or control equipment causing the excess emission;
e. Cause and nature of each excess emission;
f. Description of the steps taken to remedy the situation, prevent a recurrence, limit the excessive emissions, and assure that the malfunction or breakdown does not interfere with the attainment and maintenance of the National Ambient Air Quality Standards and state ambient air quality standards;
g. Documentation that the equipment or process was at all times maintained and operated in a manner consistent with good practice for minimizing emissions; and
h. A statement that the excess emissions are not part of a recurring pattern indicative of inadequate design, operation, or maintenance.

The submittal of these notices shall not be a defense to an enforcement action.

(Auth.: HAR §11-60.1-16; SIP §11-60-16)[2]

18. The permittee may request confidential treatment of any records in accordance with HAR, Section 11-60.1-14.

(Auth.: HAR §11-60.1-14, §11-60.1-90)

19. This permit shall become invalid with respect to the authorized construction if construction is not commenced as follows:

a. Within eighteen (18) months after the permit takes effect, is discontinued for a period of eighteen (18) months or more, or is not completed within a reasonable time; and
b. For phased construction projects, each phase shall commence construction within eighteen (18) months of the projected and approved commencement dates in the permit. This provision shall be applicable only if the projected and approved commencement dates of each construction phase are defined in Attachment II, Special Conditions, of this permit.

(Auth.: HAR §11-60.1-9, §11-60.1-90)

20. The Department of Health may extend the time periods specified in Standard Condition No. 19 upon a satisfactory showing that an extension is justified. Requests for an extension shall be submitted in writing to the Department of Health.

(Auth.: HAR §11-60.1-9, §11-60.1-90)

21. The permittee shall submit fees in accordance with HAR, Chapter 11-60.1, Subchapter 6.

(Auth.: HAR §11-60.1-90)

22. All certifications shall be in accordance with HAR, Section 11-60.1-4.

    (Auth.: HAR §11-60.1-4, HAR §11-60.1-90)

23. The permittee shall allow the Director of Health, the Regional Administrator for the U.S. EPA and/or an authorized representative, upon presentation of credentials or other documents required by law:

    a. To enter the premises where a source is located or emission-related activity is conducted, or where records must be kept under the conditions of this permit and inspect at reasonable times all facilities, equipment, including monitoring and air pollution control equipment, practices, operations, or records covered under the terms and conditions of this permit and request copies of records or copy records required by this permit; and
    b. To sample or monitor at reasonable times substances or parameters to ensure compliance with this permit or applicable requirements of HAR, Chapter 11-60.1.

    (Auth.: HAR §11-60.1-11, §11-60.1-90)

24. Within thirty (30) days of **permanent discontinuance of the construction, modification, relocation, or operation of a covered source covered by this permit**, the discontinuance shall be reported in writing to the Department of Health by a responsible official of the source.

    (Auth.: HAR §11-60.1-8; SIP §11-60-10)[2]

25. Each permit renewal application shall be submitted to the Department of Health and the U.S. EPA, Region 9, no less than twelve (12) months and no more than eighteen (18) months prior to the permit expiration date. The Director may allow a permit renewal application to be submitted no less than six (6) months prior to the permit expiration date, if the Director determines that there is reasonable justification.

    (Auth.: HAR §11-60.1-101, 40 CFR §70.5(a)(1)(iii))[1]

26. The terms and conditions included in this permit, including any provision designed to limit a source's potential to emit, are federally enforceable unless such terms, conditions, or requirements are specifically designated as not federally enforceable.

    (Auth.: HAR §11-60.1-93)

27. The compliance plan and compliance certification submittal requirements shall be in accordance with HAR, Sections 11-60.1-85 and 11-60.1-86. As specified in HAR, Section 11-60.1-86, the compliance certification shall be submitted to the Department of Health and the U.S. EPA, Region 9, once per year, or more frequently as set by any applicable requirement.

    (Auth.: HAR §11-60.1-90)

28. **Any document (including reports) required to be submitted by this permit shall be certified as being true, accurate, and complete by a responsible official in accordance with HAR, Sections 11-60.1-1 and 11-60.1-4, and shall be mailed to the following address:**

Clean Air Branch
Environmental Management Division
Hawaii Department of Health
919 Ala Moana Boulevard, Room 203
Honolulu, HI 96814

Upon request and as required by this permit, all correspondence to the State of Hawaii Department of Health associated with this Covered Source Permit shall have duplicate copies forwarded to:

Chief
Permits Office, (Attention: Air-3)
Air Division
U.S. Environmental Protection Agency
Region 9
75 Hawthorne Street
San Francisco, CA 94105

(Auth.: HAR §11-60.1-4, §11-60.1-90)

29. To determine compliance with submittal deadlines for time-sensitive documents, the postmark date of the document shall be used. If the document was hand-delivered, the date received ("stamped") at the Clean Air Branch shall be used to determine the submittal date.

(Auth.: HAR §11-60.1-5, §11-60.1-90)

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[1] The citations to the Code of Federal Regulations (CFR) identified under a particular condition, indicate that the permit condition complies with the specified provision(s) of the CFR. Due to the integration of the preconstruction and operating permit requirements, permit conditions may incorporate more stringent requirements than those set forth in the CFR.

[2] The citations to the State Implementation Plan (SIP) identified under a particular condition, indicate that the permit condition complies with the specified provision(s) of the SIP.

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ATTACHMENT IIA: SPECIAL CONDITIONS - BOILERS
COVERED SOURCE PERMIT NO 0054-01-C

Issuance Date: **Expiration Date:**

In addition to the standard conditions of the Covered Source Permit, the following special conditions shall apply to the permitted facility:

Section A. Equipment Description

1. This Permit encompasses the following equipment and associated appurtenances:

   a. Boilers 1 and 2, Stack 1

      Two (2) Riley Stoker steam boilers, model number: RX-29. Each bagasse-fueled steam boiler provides power to any of the three (3) turbine generators at 212 MMBtu/hr bagasse heat input.

   b. Boiler 3, Stack 2

      Foster Wheeler Spreader Stoker steam boiler; model number: RX-41-WW. This bagasse-fueled steam boiler provides power to two (2) of the turbine generators at 568 MMBtu/hr bagasse heat input.

   c. Two (2) venturi wet scrubber systems, one on each stack.
   d. Four (4) multi-cyclone dust collectors, one each on Boilers 1 and 2 and two (2) on Boiler 3.
   e. 20,000 lb/hr Rotary Sugar Dryer with Entoleter Model 0405 wet scrubber.

   (Auth.: HAR §11-60.1-3)

2. Within ninety (90) days after the issuance date of this permit, the permittee shall attach an identification (ID) tag or nameplate on each piece of equipment listed above, which identifies the model number, serial or ID number, and manufacturer. The ID tag or nameplate shall be permanently attached to the equipment in a conspicuous, easy to see location.

   (Auth.: HAR §11-60.1-5, HAR §11-60.1-90)

Section B. Applicable Federal Regulations

1. Boiler 3 is subject to the provisions of the following federal regulations:

   a. 40 Code of Federal Regulations (CFR) Part 60, Standards of Performance for New Stationary Sources, Subpart A - General Provisions; and
   b. 40 CFR Part 60, Standards of Performance for New Stationary Sources, Subpart D - Standards of Performance for Fossil-Fuel-Fired Steam Generators for Which Construction is Commenced After August 17, 1971.

2. Boilers 1, 2, and 3 are subject to the provisions of the following federal regulations:

   a. 40 CFR Part 63, National Emission Standards for Hazardous Air Pollutants for Source Categories, Subpart A – General Provisions;
   b. 40 CFR Part 63, Subpart DDDDD, National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial, and Institutional Boilers, and Process Heaters; and
   c. 40 CFR Part 64 – Compliance Assurance Monitoring (CAM) is applicable upon renewal of this permit.

   (Auth.: HAR §11-60.1-3, §11-60.1-90, §11-60.1-161; 40 CFR §60.1, §60.40; § 63.1; §63.6590;)[1]

3. The permittee shall comply with all applicable provisions of these standards, including all emission limits, notification, testing, monitoring, and reporting requirements.

   (Auth.: HAR §11-60.1-3, §11-60.1-90, §11-60.1-161)

Section C. Emission Limits

1. Boiler Emission Limits

   a. Emissions from Boilers 1 and 2 (Stack 1), and Boiler 3 (Stack 2), shall not exceed the limits as shown in the following table:

TABLE 1
BOILER EMISSION LIMITS

POLLUTANT	FUEL	STACK NO.	BOILER NO.	LIMIT	UNITS (heat input)
NO_x	Coal[3]	1	1 & 2	0.65	lb/MMBtu
	Coal[3]	1	1 & 2	222.7	lb/hr[1]
	Liquid fossil fuel or liquid fossil fuel and wood residue	2	3	0.30[4]	lb/MMBtu
	Coal, or Coal and wood residue	2	3	0.70[4]	lb/MMBtu
	Solid fossil fuel, or solid fossil fuel and wood residue	2	3	0.70[4]	lb/MMBtu
PM	Bagasse	1	1 & 2	0.4	lb/100 lb bagasse
	Coal[3]	1			

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TABLE 1
BOILER EMISSION LIMITS

POLLU-TANT	FUEL	STACK NO.	BOILER NO.	LIMIT	UNITS (heat input)
			1 & 2	0.24	lb/MMBtu
	Bagasse	2	3	0.4	lb/100 lb bagasse
	Coal	2	3	0.1	lb/MMBtu
	Fossil Fuel or Fossil Fuel & Wood	2	3	0.10[2]	lb/MMBtu
SO_2	Coal, or Coal and Wood Residue	2	3	1.2[4]	lb/MMBtu
	Solid fossil fuel, or solid fossil fuel and wood residue	2	3	1.2[4]	lb/MMBtu
	Liquid fossil fuel or liquid fossil fuel and wood residue	2	3	0.8[4]	lb/MMBtu

[1] 3-hour average for coal in pounds per hour
[2] PM emissions limits are applicable to front-half measurements.
[3] Stack 1 Boilers 1 and 2 when firing 90% or more of the total heat input
[4] 40 CFR Part 60, Subpart D, 3-hour average

i. As an alternate to meeting the requirements of particulate matter (PM) in Table 1 above, the permittee that elects to install, calibrate, maintain, and operate a continuous emissions monitoring systems (CEMS) for measuring PM emissions can petition the Administrator of U.S. EPA, Region 9, in writing, to comply with 40 CFR Part 60, Subpart Da, §60.42Da(a). If the Administrator grants the petition, the permittee will from then on (unless the unit is modified or reconstructed in the future) comply with the requirements in 40 CFR Part 60, Subpart Da, §60.43Da(a);

ii. As an alternate to meeting the requirements of sulfur dioxide (SO_2) in Table 1 above, the permittee can petition the Administrator of U.S. EPA, Region 9, in writing, to comply with 40 CFR Part 60, Subpart Da, §60.43Da(i)(3) or comply with 40 CFR Part 60, Subpart Db, §60.42b(k)(4), as applicable to the affected source. If the Administrator grants the petition, the permittee will from then on, unless the unit is modified or reconstructed in the future, have to comply with the requirements in 40 CFR Part 60, Subpart Da, §60.43Da(i)(3), or Subpart Db, §60.42b(k)(4) as applicable to the affected source;

iii. When a fossil fuel containing at least twenty-five (25) percent, by weight, of coal refuse is burned in combination with gaseous, liquid, or other solid fossil fuel or wood residue, the standard for nitrogen oxide (NO_X) in Table 1 above, does not apply; and

iv. As an alternate to meeting the requirements of nitrogen oxides in Table 1 above, the permittee can petition the Administrator of U.S. EPA, Region 9, in writing, to comply with 40 CFR Part 60, Subpart Da, §60.44Da(e)(3). If the Administrator grants the petition, the source will from then on, unless the unit is modified or reconstructed in the future, have to comply with the requirements in 40 CFR Part 60, Subpart Da, §60.44Da(e)(3).

b. For Boiler 3, when burning combinations of fossil fuels, the emissions from Stack 2 shall comply with the limits for sulfur dioxide (SO_2) and nitrogen oxides (NO_X) as determined by the results of the following equations:

i. When different fossil fuels are burned simultaneously in any combination, the applicable sulfur dioxide standard, in pounds per million Btu (lb/MMBtu), shall be determined by proration using the following formula:

$$PS_{SO2} = (0.8\ y + 1.2\ z) / (y + z)$$

Where:
PS_{SO2} is the prorated standard for sulfur dioxide when burning different fuels simultaneously, in lb/MMBtu heat input derived from all fossil fuels fired or from all fossil fuels and wood residue fired;
y is the percentage of total heat input derived from liquid fossil fuel; and
z is the percentage of total heat input derived from solid fossil fuel.

Compliance shall be based on the total heat input from all fossil fuels burned, Including gaseous fuels.

ii. When different fossil fuels are burned simultaneously in any combination, the applicable nitrogen oxide standard, in lb/MMBtu, is determined by proration using the following formula:

$$PS_{NOx} = x\ (0.2) + y\ (0.3) + z\ (0.7) / (x + y + z)$$

Where:
PS_{NOx} is the prorated standard for nitrogen oxides when burning different fuels simultaneously, in lb/MMBtu heat input derived from all fossil fuels fired or from all fossil fuels and wood residue fired;
x is the percentage of total heat input derived from gaseous fossil fuel;
y is the percentage of total heat input derived from liquid fossil fuel; and
z is the percentage of total heat input derived from solid fossil fuel.

(Auth.: HAR §11-60.1-3, §11-60.1-5, §11-60.1-36, §11-60.1-90; 40 CFR §60.42; 40 CFR §60.43; §60.44;)

2. Boiler Opacity of Visible Emissions

    a. With the exception of Special Condition C.2.b below, the opacity limit for (Boilers 1 and 2) Stack 1, shall not exhibit visible emissions of forty (40) percent or greater for any six (6) minute averaging period, except as follows: during start-up, shutdown, or equipment breakdown. Stack 1 may exhibit visible emissions greater than forty (40), but not exceeding sixty (60) percent opacity for a period aggregating not more than six (6) minutes in any sixty (60) minute period.
    b. When fired mainly on coal (coal providing ninety (90) percent or more of the total heat input), (Boilers 1 and 2) Stack 1 shall not exhibit visible emissions equal to twenty (20) percent or greater for any six (6) minute averaging period, except as follows: during start-up, shutdown, or equipment breakdown. Each boiler stack may exhibit visible emissions greater than twenty (20), but not exceeding sixty (60) percent opacity for a period aggregating not more than six (6) minutes in any sixty (60) minute period.
    c. Boiler 3, Stack 2, shall not exhibit visible emissions of twenty (20) percent or greater for any six (6) minute averaging period, except as follows: during start-up, shutdown, or equipment breakdown. Stack 2 may exhibit visible emissions greater than twenty (20), but not exceeding twenty-seven (27) percent opacity for a period aggregating not more than six (6) minutes in any sixty (60) minute period.

    (Auth.: HAR §11-60.1-3, §11-60.1-5, §11-60.1-32, §11-60.1-90; 40 CFR §60.42)

3. Sugar Dryer Opacity of Visible Emissions

    For any six (6) minute averaging period, the 20,000 lb/hr sugar dryer stack shall not exhibit visible emissions of twenty (20) percent or greater, except as follows: during start-up, shutdown, or equipment breakdown. The 20,000 lb/hr sugar dryer stack may exhibit visible emissions greater than twenty (20), but not exceeding sixty (60) percent opacity for a period aggregating not more than six (6) minutes in any sixty (60) minute period.

    (Auth.: HAR §11-60.1-3, §11-60.1-5, §11-60.1-36, §11-60.1-90; 40 CFR §60.45)

Section D. Operational Limits

1. Boiler Fuels

    a. Boilers 1, 2, and 3 shall be fired only on propane, coal, fuel oil no. 2, specification used oil, bagasse, untreated wood chips, bana grass, cooking oil, and small quantities of agricultural material, consisting of flowers, foliage, fruits, and vegetables in cardboard boxes.
    b. Other fuels, including other biomass fuel, may be fired in the boilers provided **prior** written approval is granted by the Department of Health (DOH).

    (Auth.: HAR §11-60.1-3, §11-60.1-5, §11-60.1-36, §11-60.1-90)

2. Biomass

   a. The amount of biomass fuel fired in Boiler 3, based on annual heat input, shall be greater than fifty (50) percent of the total fuel fired. The annual amount of biomass fuel burned in Boiler 3 shall have a total BTU value greater than the "minimum biomass BTU" calculated in the equation below:

      Actual annual heat input = (A) + (B) + (C)

      A = total heat input for the year from biomass fuel
      B = total heat input for the year from fossil fuels
      C = total heat input for the year from other fuels

      Biomass qualification factor (BQF) = 0.50
      Minimum biomass BTU = BQF x actual annual heat input

   b. The bagasse handling system serving the Puunene Mill boilers shall be constructed and operated as described below in order to minimize the impacts on boiler operations of excessively wet bagasse feeding directly from the mill:

      i. The permittee shall have in place, operate and maintain a real-time moisture analyzer on the bagasse, delivery conveyor between the mill and power plant, conveyor no. 6071, in order to provide advance warning to boiler operators of an increase in moisture content of bagasse coming from the mill;
      ii. The bagasse conveyor system shall be configured to allow a portion of the bagasse feed from the mill to bypass the boilers and discharge to the bagasse house, and to allow continuous bagasse feed from the bagasse house via the elevator belt conveyor 6078, to combine with bagasse from the mill, improving the overall consistency of bagasse fed to all three (3) boilers from the feeder belt conveyor 6072;
      iii. Bagasse chutes for Boiler 3 shall extend to the return belt conveyor and shall be configured to allow bagasse to be fed to Boiler 3 via either the return belt conveyor 6072 or the feeder belt conveyor 6072;
      iv. Ploughs shall be installed on the return belt conveyor so that at least half of the Boiler 3 bagasse feeders are fed directly from the return belt conveyor; and
      v. The bagasse conveyor system maybe operated with all three (3) boilers being fed directly from the mill in the event that a system failure temporarily prevents feeding bagasse from the bagasse house.

   (Auth.: HAR §11-60.1-3, §11-60.1-5, §11-60.1-32, §11-60.1-36; §11-60.1-90; 40 CFR §60.42(a)(2); SIP §11-60-24)[2]

3. Coal

   a. The total amount of coal fired in Boilers 1 and 2 shall not exceed 54,680 tons as measured on a rolling twelve-month (12-month) basis.
   b. The amount of coal fired in Boiler 3 shall not exceed 45,000 tons as measured on a rolling twelve-month (12-month) basis.

c. For each shipment of coal received at the facility, the coal shall be sampled and tested by an independent laboratory for its heating value and sulfur content. Sampling and testing may be conducted before or after the shipment. Each sample shall be representative of all the coal included in the shipment.
d. Coal fired in the boilers shall be washed, low sulfur coal with a maximum sulfur content not to exceed 0.5 % by weight.
e. Unwashed, low sulfur coal with a maximum sulfur content not to exceed 0.5% by weight may be fired in the boilers provided the permittee complies with the following:

    i. The Department of Health shall be notified in writing prior to the receipt of the unwashed, low sulfur coal. The notification shall include the origin, type, and characteristics of the coal;
    ii. The Department of Health shall be notified in writing prior to the receipt of any coal of differing origin or type; and
    iii. The unwashed, low sulfur coal shall be sprayed with sufficient amounts of water while in the ship's hold to minimize fugitive emissions during the unloading and handling of coal.

f. The permittee shall adhere to the Fugitive Emissions Control Plan as described below in Special Condition D.3.j, to minimize fugitive emissions from the handling, transporting, and stockpiling of coal. The HC&S Fugitive Emissions Control Plan describes measures to control fugitive emissions from and during the following coal handling operations:

    (1) Unloading and handling at the docks;
    (2) Transporting from the docks to the site;
    (3) Stockpiling and storing;
    (4) Feed conveyor system; and
    (5) Miscellaneous handling.

g. Non-compliance with the Fugitive Emissions Control Plan shall constitute a violation enforceable by the Department of Health. Compliance with the Fugitive Emissions Control Plan shall not absolve the permittee from the responsibility for the consequences of non-compliance with the Hawaii Administrative Rules, Title 11, Chapter 60.1.
h. The Department of Health shall be notified in writing of any revisions to the Coal Fugitive Emissions Control Plan.
i. The transferring of coal to any other facility is prohibited without first notifying the Department of Health in writing well in advance of such transfer and submitting with that notice, copies of the authorization or permit which allows the receiving facility to burn that coal.
j. The following is the HC&S Fugitive Emissions Control Plan: Coal Handling and Storage:

    (1) After vessel docking procedures are completed and hold hatches are opened, the coal shall be wet down with water as necessary to minimize dusting during unloading, handling, transport, and storage of the shipment;

(2) Before each truck is positioned under the hopper for loading, drivers shall check to ensure that the tailgate is sealed and securely tightly to prevent accidental opening or spillage while in route. The route between the pier and the factory shall be periodically checked for spillage of coal;
(3) Coal shall be unloaded and stored at two (2) locations at the Puunene Factory;

   (a) The coal bunker located next to the bagasse house; and
   (b) The coal storage area located adjacent to the Hawaiian Commercial Sugar Warehouse. During unloading, water wagons shall be available to wet down the coal as necessary to prevent dusting.

(4) The coal storage area shall be used to supply the coal bunker area. The height of the coal pile in this area shall be maintained at or below twenty (20) feet. The coal shall be periodically sprayed with a dust inhibitor. Coal shall be transported from the storage area as necessary to maintain an adequate stock at the coal bunker;
(5) The coal bunker area shall be equipped with a sprinkler system to wet coal in order to prevent dust. The coal bunker shall feed the coal reclaim conveyor, which in turn shall supply coal to the boilers. Coal stored in this area shall be periodically pushed towards the bunker wall in order to supply the live coal feed zone. The sprinkler system shall be operated as needed;
(6) The coal handling facility shall consist of a 500-ton live coal feed zone with a reclaim conveyor, which shall be installed in a below ground pit directly below the coal bunker in order to minimize the height of the coal pile;
(7) Coal shall be fed directly onto the conveyor through gates in the bunker in order to minimize dusting. The reclaim conveyor shall transfer coal unto conveyor no. 2, which shall take the coal up to the transfer tower and shall be totally enclosed from the pit to the top of the tower;
(8) Inside the transfer tower, the coal shall be transferred from conveyor no. 2 to conveyor no. 3, which is also totally enclosed and carries the coal to an enclosed gallery housing the bagasse conveyors;
(9) From conveyor no. 3, the coal shall be transferred to distribution drag conveyor no. 4, and then to distribution drag conveyor no. 5, both shall be mounted in the lower section of the bagasse conveyor gallery;
(10) The no. 5 drag conveyor shall distribute coal into twelve (12) chutes, which shall direct the coal into twelve (12) coal feeders. The feeders shall then meter coal into twelve (12) chutes, which shall direct the coal into twelve (12) flingers, six (6) of which distribute coal into Boilers no. 1 and no. 2, and the other six (6) feeding Boiler no. 3; and
(11) The flingers shall be the last equipment to handle the coal prior to burning in the boilers. Because all of the conveyors and transfer points are enclosed, dusting is minimized during the entire coal transfer operation.

(Auth.: HAR §11-60.1-3, §11-60.1-5, §11-60.1-33, §11-60.1-38, §11-60.1-90)

4. Specification (Spec) Used Oil

   a. The following permit conditions associated with the use of specification used oil may be revised at any time by the Department of Health to reflect federal or state promulgated rules on specification used oil.
   b. This permit does not release the permittee from compliance with all applicable state and federal rules and regulations on the handling, transporting, storing and burning of specification used oil.
   c. For in-house facility specification used oil for Boiler 3, the used oil shall consist of lubricating oil, diesel fuel, kerosene, hydraulic oils, grease, and non-PCB transformer mineral oil. Boiler 3 shall burn only in-house provided used oil.
   d. Composite samples of used oil generated in-house shall be taken monthly prior to burning in the boiler. The composite samples shall be taken in a manner such that the sample is representative of all the used oil in the batch stored at that time. The sample shall represent no more than 7,500 gallons of used oil or all of the used oil collected in any one (1) month period, whichever is less. Prior to the used oil being burned in the boilers, each sample shall be tested by an independent, qualified laboratory, and an analysis obtained for the constituents/properties for which limits are indicated in Table 2 below. Additional used oil may be added to the batch provided that:

      I. Specification used oil in the specification used oil tank is retested after the addition of untested used oil; or
      II. The holding tanks or drums of untested used oil are tested prior to addition to the specification used oil tank, and results meet the requirements of Table 2 below.

   e. For each batch of commercially obtained specification used oil received, for Boiler 1 and 2, HC&S shall obtain a report of analysis of a representative sample of the specification used oil conducted by an independent, qualified laboratory, and including all of the constituents/properties for which limits are indicated in Table 2. Specification used oil received from commercial sources shall not be blended with in-house facility specification used oil unless both batches of oil have been tested and meet the requirements of Table 2. Boilers 1 and 2 may burn commercially or in-house used oil.
   f. The following constituents/properties of the specification used oil shall not exceed the following limits:

TABLE 2 – SPECIFICATION USED OIL	
Constituent/Property	**Allowable Limit**
Arsenic	5 ppm maximum
Cadmium	2 ppm maximum
Chromium	10 ppm maximum
Lead	100 ppm maximum
Total Halogens	1,000 ppm maximum
Sulfur	0.5% Boiler 3 in-house only
	0.75% commercial source Boilers 1 & 2 only
Flash Point	100°F minimum
PCB	less than 2 ppm

g. HC&S shall not burn, but properly dispose of the used oil if declared or determined to be a hazardous waste or if the analysis of the used oil exceeds the limits specified in Table 2 above and is declared off-specification. The contaminated hazardous oil in containers
h. shall be identified and isolated from the non-contaminated containers. In no case, shall any used oil that has not been tested and verified by an independent laboratory analysis or as provided in D.4.i below to meet the specification used oil requirements in Table 2 above, be added to the blend tank and burned.
i. If fuel blending with fuel oil no. 2 is used to meet requirements of Table 2 above, HC&S shall retest or perform calculations to verify that the blended fuel meets these requirements. Used oil fuel blended with fuel oil no. 2 and meeting requirements of Table 2 is considered specification used oil.
j. The maximum quantity of specification fuel oil fired at the Puunene Mill shall be 2,000,000 gallons on a twelve-month (12-month) rolling basis. HC & S shall continue to maintain records of how many gallons of specification used oil are burned individually in Boilers 1, 2, and 3.
k. Specification used oil for Boiler 3 shall be stored in separate tanks from specification used oil for Boilers 1 and 2.
l. Used oil shall be classified as a liquid fossil fuel, unless specifically exempted from being a fossil fuel pursuant to any Federal Regulations.

(Auth.: HAR §11-60.1-3, §11-60.1-5, §11-60.1-38, §11-60.1-90)

5. Sulfur Content of Fuels

a. All coal burned by the three (3) boilers shall have a maximum sulfur content of 0.5% by weight, as determined by testing conducted as required in D.3.c.
b. For Boiler 3, fuel oil no. 2, other fuel oils, and specification used oil, shall contain no more than 0.5 percent sulfur by weight.
c. For.Boilers 1 and 2, fuel oil shall contain no more than 2% sulfur content by weight.
d. Specification used oil burned in Boilers 1 and 2 shall have a maximum sulfur content of 0.75 % by weight, as required in D.4.e.

(Auth.: HAR §11-60.1-3, §11-60.1-5, §11-60.1-36, §11-60.1-90)

6. Boiler Muticyclones and Venturi Wet Scrubbers

a. At all times, when Boiler 1 and/or Boiler 2 are operating firing any fuel, all exhaust gases from the boilers shall be ducted through each multicyclone dust collector and a venturi wet scrubber system before exiting through Stack 1.
b. At all times, when Boiler 3 is operating firing any fuel, all exhaust gases from Boiler 3 shall be ducted through the multicyclone dust collector and a venturi wet scrubber system before exiting through Stack 2.
c. A water pressure gauge in the main water line servicing the spray bars for the three (3) venturi wet scrubbers, or as specified by the manufacturer, measuring in pounds per square inch atmospheric pressure (psia), shall be installed, operated, maintained, calibrated and remain a permanent part of the venturi wet scrubber system.

(Auth.: HAR §11-60.1-3, §11-60.1-5, §11-60.1-36, §11-60.1-90)

7. Sugar Dryer

   The amount of specialty sugar dried shall not exceed 75,000 tons during any rolling twelve-month (12-month) period.

   (Auth.: HAR §11-60.1-3, §11-60.1-5, §11-60.1-32, §11-60.1-90; 40 CFR §60.42(a)(2); SIP §11-60-24)[2]

8. Sugar Dryer Wet Scrubber

   At all times, when the 20,000 lb/hr sugar dryer is in operation, all exhaust gases from the dryer shall be ducted through the Entoleter wet scrubber system before exiting through the dryer stack.

   (Auth.: HAR §11-60.1-3, §11-60.1-5, §11-60.1-32, §11-60.1-90; 40 CFR §60.42; SIP §11-60-24)[2]

9. Fugitive Dust Controls

   a. The permittee shall take reasonable precautions to prevent fugitive dust from becoming airborne and shall not cause or permit the discharge of visible emissions of fugitive dust beyond the lot line of the property boundary on which the emissions originate.
   b. The permittee shall take measures to control and minimize fugitive dust, for example, wet suppression, enclosures, dust screens, at material transfer points, stockpiles, plant roads, loading and unloading operations, and throughout the work yard. The Department of Health may at any time require the permittee to further abate fugitive dust emissions, require additional water sprays, or require manual water spraying at pertinent locations if an inspection indicates poor or insufficient control.

   (Auth.: H8AR §11-60.1-3, §11-60.1-5, §11-60.1-33, §11-60.1-90)

10. Boiler 3 Stack Height

    The exhaust stack servicing Boiler 3 (Stack 2) shall be a minimum height of 140 feet above ground elevation.

    (Auth.: HAR §11-60.1-3, §11-60.1-5, §11-60.1-36, §11-60.1-90)

Section E. Monitoring and Recordkeeping Requirements

1. Record Retention

   All records, or copies thereof, including support information, shall be maintained at the facility for at least five (5) years from the date of the monitoring samples, measurements, tests, reports, or application. Support information includes all calibration and maintenance records and copies of all reports required by the permit. These records shall be true,

accurate and maintained in a permanent form suitable for inspection and made available to the Department of Health or their representative upon request.

(Auth.: HAR §11-60.1-3, §11-60.1-11, §11-60.1-90)

2. Boiler Fuel Consumption and Analysis Records

   a. For Boilers 1, 2, and separately for Boiler 3, the permittee shall monitor and record the fuel types and consumption on a monthly and twelve (12) month rolling basis. Fuel use records shall be maintained for each of the following fuels and shall also be used to estimate annual emissions and fees:

      i. Bagasse (tons);
      ii. Coal (tons);
      iii. Fuel oil No. 2 (gallons);
      iv. Specification Used Oil (gallons);
      v. Wood chips (tons);
      vi. Cooking oil (gallons); and
      vii. Other fuels.

   b. Fuel heat input, separately, for each of the three (3) boilers shall be monitored by tracking the following fuel usage and multiplying by the known heating value of each fuel:

      i. Heat content of bagasse shall be determined annually by the owner or operator;
      ii. Heat content of coal shall be provided by the shipper for each shipment of fuel;
      iii. Heat content of fuel oil shall provided by the supplier for each bulk shipment;
      iv. Heat content of specification used oil shall be included in each analysis of in-house used oil and shall be provided by the supplier of each load of commercial specification used oil; and
      v. Heat content of wood chips, cooking oil, and other fuels shall be determined based on fuel analysis or data provided by the fuel supplier.

   c. Records shall be maintained of all fuel deliveries to the Puunene Mill, to include the fuel supplier, delivery date, and type, and amount of fuel received. Fuel received shall be based on delivery receipts. The delivery receipts shall identify the supplier, delivery dates, and the type and amount of fuel received.

      i. The following records shall be kept for each shipment of coal:

         (1) Name of the supplier;
         (2) Location where the coal originated;
         (3) Type of coal;
         (4) Quantity of coal;
         (5) Date received;
         (6) Sample identifications and test dates;
         (7) Test results of high heating value; and
         (8) Test results of sulfur content.

ii. The permittee shall obtain from the fuel oil no. 2 supplier, a certificate of analysis of the fuel delivered. The fuel analysis shall identify the percent sulfur content by weight. The sulfur content of the fuel oil no. 2 to be fired in Boiler 3 shall be tested in accordance with the most current American Society for Testing Materials (ASTM) methods. Fuel delivery receipts, and certificates of analysis, or copies thereof, shall be maintained at the work site and made available to the Department of Heath upon request. The permittee shall submit ASTM laboratory test results of the three (3) highest sulfur content for all fuel oil no. 2 burned in Boiler 3 annually.

iii. The following records shall be maintained for specification used oil:

(1) For each sample of in-house generated used oil obtained, the permittee shall record in a Used Oil Sample Log the date of the sample, the tank number, the source of the oil, and the total gallons represented by the sample. The permittee shall retain an independent laboratory report and chain of custody record for each sample analyzed;

(2) When the report of analysis is returned by the independent laboratory, the permittee shall review the lab report to ensure that the oil meets the specifications and shall enter either "SPEC" or "OFF-SPEC" on the log sheet, as appropriate;

(3) For each shipment of used oil received, the permittee shall record in a Used Oil Delivery Record the name of the used oil supplier, the date the used oil was received, the quantity of used oil received, a reference to the corresponding lab report demonstrating that the used oil meets the specification, and the tank number that the used oil was stored. The permittee shall retain a report of the laboratory report analysis that is representative of each shipment of used oil received;

(4) The permittee and each used oil supplier must document that the used oil they generate does not contain detectable levels of polychlorinated biphenyls (PCBs). This documentation may be in the form of a laboratory analysis of the used oil or a certification based upon knowledge of the source and composition of the used oil and shall be maintained in the used oil records; and

(5) The permittee shall install, operate, calibrate, and maintain non-resetting fuel meters on all three (3) boilers for the continuous and permanent recording of the number of gallons of specification used oil fired in each boiler for the purpose of the gallon limitation specified in this Attachment, Special Condition D.4.i.

The non-resetting hour meter shall not allow the manual resetting or other manual adjustments of the meter readings. Installation of any new non-resetting meters or the replacement of any non-resetting meters shall be designed to accommodate a minimum of five (5) years of equipment operation, considering any operational limitations, before the meter returns to a zero reading.

iv. Fuel delivery records and certificates of analysis, or copies thereof, shall be maintained at the Puunene Mill and made available to the Department of Health upon request.

(Auth.: HAR §11-60.1-3, §11-60.1-5, §11-60.1-90; 40 CFR §60.17)

3. Sugar Dryer

a. The permittee shall install, operate, and maintain a weighing system for the measurement and recording of the weight of all specialty sugar produced in the food grade production line. Maintenance of the weighing system shall include regular calibration. Upon issuance of this permit, within sixty (60) days, the permittee shall submit copies of the measurement and records of the specialty sugar produced during the busiest month of the year and a description of the sugar weighing procedure to the Department of Health.
b. The permittee shall continuously monitor and record the amount of specialty sugar dried on a daily basis. Any sugar dried and rejected prior to packaging shall also be included when calculating the amount of specialty sugar dried. Records shall also be maintained on the amount of specialty sugar dried per month and for the previous rolling twelve-month (12-month) period.

(Auth.: HAR §11-60.1-3, §11-60.1-5, §11-60.1-32, §11-60.1-90; 40 CFR §60.42(a)(2); SIP §11-60-24)[2]

4. Sugar Dryer Wet Scrubber

A minimum pressure drop of eight (8) inches shall be maintained across the wet scrubber at all times that the dryer is in operation. If the pressure drop falls below eight (8) inches of water, the sugar dryer shall be immediately shut down and the problem corrected before resuming operations.

(Auth.: HAR §11-60.1-3, §11-60.1-5, §11-60.1-32, §11-60.1-90; 40 CFR §60.42(a)(2); SIP §11-60-24)[2]

5. Visible Emissions (VE) For Boilers 1, 2, and 3

a. Except in those months when a source performance test is conducted pursuant to Special Condition G.1 of this attachment, the permittee shall conduct **monthly** (*calendar month*) VE observations for each equipment subject to opacity limits in accordance with 40 CFR Part 60, Method, 9, Appendix A, or U.S. EPA approved equivalent methods, or alternative methods with prior written approval from the Department of Heath. For each monthly observation, the permittee shall record two (2) consecutive observations, each six (6) minutes in duration with readings taken at fifteen (15) second intervals for each equipment. Records shall be completed and maintained in accordance with the *Visible Emissions Form Requirements*.

When an equipment(s) in not in operation during an entire month, for example, due to maintenance, the permittee is still required to record opacity as zero (0) for that

equipment's VE observation for that month, or consecutive inoperable months, and describe the reason for the equipment being inoperative in the report. The permittee shall submit a complete semi-annual report accounting for VE observations for each equipment every month.

b. The permittee shall conduct **annually** (*calendar year*) VE observations for each equipment subject to opacity limits by a certified reader in accordance with 40 CFR Part 60, Method, 9, Appendix A, or U.S. EPA approved equivalent methods, or alternative methods with prior written approval from the Administrator of U.S. EPA, Region 9. For each annual VE observation, two (2) observations shall be taken at fifteen (15) second intervals for six (6) consecutive minutes for each equipment. Records shall be completed and maintained in accordance with the *Visible Emissions Form Requirements*.

When equipment(s) is not in operation during the scheduled month for the annual VE, or consecutive months before the scheduled annual VE, the permittee is still required to do an annual VE by a certified reader in accordance with 40 CFR Part 60, Method 9, when the equipment is returned to operation. Operating without an annual VE or a waiver as described below in 7.c, is defined as a violation of this permit.

c. Upon written request and justification by the permittee, the Department of Health may waive the requirement for a specific annual VE test. The waiver request is to be submitted prior to the required test and must include documentation justifying such action. Documentation should include, but is not limited to, the results of the prior tests indicating compliance by a wide margin, documentation of continuing compliance, and further that operations of the source have not changed since the previous source test.

(Auth.: HAR §11-60.1-3, §11-60.1-5, §11-60.1-11, §11-60.1-32, §11-60.1-90; SIP §11-60-24)[2]

6. Boiler 3, 40 CFR Part 60, Subpart D

Within sixty (60) days after the issuance date of this permit, but not later than one-hundred eighty days (180) after issuance of this permit, on Boiler 3, the permittee shall install, operate, calibrate, and maintain a continuous opacity monitoring system (COMS) for measuring opacity and a continuous emissions monitoring system (CEMS) for measuring sulfur dioxide (SO_2) emissions, nitrogen oxide (NO_2) emissions, and either oxygen (O_2) or carbon dioxide (CO_2) emissions, except as provided in paragraph 7 below {§60.45 (b)}.

(Auth.: HAR §11-60.1-3, §11-60.1-5, §11-60.1-11, §11-60.1-90; 40 CFR §60.11; §60.13; §60.19; §60.45)

7. With a written request to, and written approval from, the Administrator of U.S. EPA, Region 9, certain of the CEMS requirements given in paragraph 6 above {§60.45 (a)}, of this section, shall not apply to the permittee under the following conditions:

a. For a fossil-fuel-fired steam generator that burns only gaseous or liquid fossil fuel (excluding residual oil) with potential SO_2 emissions rates of 0.060 lb/MMBtu or less

and that does not use post-combustion technology to reduce emissions of SO_2 or PM, CEMS for measuring the opacity of emissions and SO_2 emissions are not required if the permittee monitors SO_2 emissions by fuel sampling and analysis or fuel receipts.

b. For a fossil-fuel-fired steam generator that does not use a flue gas desulfurization device, a CEMS for measuring SO_2 emissions shall not be required if the permittee monitors SO_2 emissions by fuel sampling and analysis.

c. Notwithstanding §60.13(b), installation of a CEMS for NO_X may be delayed until after the initial performance tests under 40 CFR Part 60, §60.8 have been conducted. If the permittee demonstrates during the performance test that emissions of NO_X are less than seventy (70) percent of the applicable standards in Table 1, a CEMS for measuring NO_X emissions is not required. If the initial performance test results show that NO_X emissions are greater than seventy (70) percent of the applicable standard, the permittee shall install a CEMS for NO_X within one (1) year after the date of the initial performance tests under 40 CFR Part 60, §60.8, and comply with all other applicable monitoring requirements under this part.

d. If the permittee does not install any CEMS for sulfur oxides and NO_X, as provided under conditions 7.a and 7.c above or paragraphs 7.b and 7.c above of this section a CEMS for measuring either O_2 or CO_2 shall not be required.

e. The permittee may petition the Administrator of U.S. EPA, Region 9, in writing, to install a PM CEMS as an alternative to the CEMS for monitoring opacity emissions.

f. A CEMS for measuring the opacity of emissions shall not be required for a fossil fuel-fired steam generator that does not use post-combustion technology (except a wet scrubber) for reducing PM, SO_2, or carbon monoxide (CO) emissions, burns only gaseous fuels or fuel oils that contain less than or equal to 0.30 percent sulfur by weight, and is operated such that emissions of CO to the atmosphere from the affected stationary source are maintained at levels less than or equal to 0.15 lb/MMBtu on a boiler operating on a daily average basis. The permittee of affected sources electing to comply with this paragraph shall demonstrate compliance according to the procedures specified in (b)(6)(i) through (b)(6)(iv) of 40 CFR Part 60, §60.45.

g. The permittee of an affected stationary source subject to an opacity standard under C.2 that elects to not install a COMS because the affected stationary source burns only fuels as specified under paragraph 7.a above, monitors PM emissions as specified under paragraph 7.e above, or monitors CO emissions as specified under paragraph 7.f above, shall conduct a performance test using 40 CFR Part 60, Method 9, Appendix A-4, and the procedures in 40 CFR Part 60, §60.11 to demonstrate compliance with the applicable limit in C.2 and shall comply with either paragraph 7.g.i, 7.g.ii, or 7.g.iii, below. If during the initial sixty (60) minutes of observation of all six (6) minute averages are less than ten (10) percent and all fifteen (15) second observations are less than or equal to twenty (20) percent, the observation period may be reduced from three (3) hours to sixty (60) minutes.

    i. Except as provided in paragraph 7.g.ii below or 7.g.iii below, the permittee shall conduct subsequent 40 CFR Part 60, Method 9, Appendix A-4, performance tests using the procedures in paragraph 7.g of this section according to the applicable schedule in paragraphs 7.g.i(1) through 7.g(i)(4) below, as determined by the most recent 40 CFR Part 60, Method 9, Appendix A-4, performance test results.

(1) If no visible emissions are observed, a subsequent 40 CFR Part 60, Method 9, Appendix A-4, performance test must be completed within twelve (12) calendar months from the date that the most recent performance test was conducted;
(2) If visible emissions are observed but the maximum six-minute (6-minute) average opacity is less than or equal to five (5) percent, a subsequent Method 9 of Appendix A–4 of 40 CFR Part 60 performance test must be completed within six (6) calendar months from the date that the most recent performance test was conducted;
(3) If the maximum six-minute (6-minute) average opacity is greater than five (5) percent but less than or equal to ten (10) percent, a subsequent 40 CFR Part 60, Method 9, Appendix A-4, performance test must be completed within three (3) calendar months from the date that the most recent performance test was conducted; or
(4) If the maximum six-minute (6-minute) average opacity is greater than ten (10) percent, a subsequent 40 CFR Part 60, Method 9, Appendix A-4, performance test must be completed within forty-five (45) calendar days from the date that the most recent performance test was conducted.

ii. If the maximum six-minute (6-minute) opacity is less than ten (10) percent during the most recent 40 CFR Part 60, Method 9, Appendix A-4, performance test, the permittee may, as an alternative to performing subsequent 40 CFR Part 60, Method 9, Appendix A-4, performance test, the permittee as an alternative to perform subsequent monitoring using 40 CFR Part 60, Method 22, Appendix A-7, according to the procedures specified in paragraphs 7.g(ii)(1) and 7.g(ii)(2) below:

(1) The permittee shall conduct ten (10) minute observations, during normal operation, each operating day the affected facility fires fuel for which an opacity standard is applicable using 40 CFR Part 60, Method 22, Appendix A–7, and demonstrate that the sum of the occurrences of any visible emissions is not in excess of five (5) percent of the observation period, that is, a thirty (30) seconds per ten (10) minute period. If the sum of the occurrence of any visible emissions is greater than thirty (30) seconds during the initial ten (10) minute observation, the permittee shall immediately conduct a thirty (30) minute observation. If the sum of the occurrence of visible emissions is greater than five (5) percent of the observation period, that is, ninety (90) seconds per a thirty (30) minute period, the permittee shall either document and adjust the operation of the facility and demonstrate within twenty-four (24) hours that the sum of the occurrence of visible emissions is equal to or less than five (5) percent during a thirty (30) minute observation, that is, ninety (90) seconds, or conduct a new 40 CFR Part 60, Method 9, Appendix A–4, performance test using the procedures in paragraph 7.g above within forty-five (45) calendar days according to the requirements in G.18.b.iii; and
(2) If no visible emissions are observed for thirty (30) operating days during which an opacity standard is applicable, observations can be reduced to once every seven (7) operating days during which an opacity standard is applicable. If any visible emissions are observed, daily observations shall be resumed.

iii. If the maximum six (6) minute opacity is less than ten (10) percent during the most recent 40 CFR Part 60, Method 9, Appendix A–4 Performance Test, the permittee may, as an alternative to performing subsequent 40 CFR Part 60, Method 9, Appendix A–4 Performance Tests, elect to perform subsequent monitoring using a digital opacity compliance system according to a site-specific monitoring plan if the plan is approved by the Administrator of U.S. EPA, Region 9. The observations shall be similar, but not necessarily identical, to the requirements in 7.g.(ii) above. For reference purposes in preparing the monitoring plan, see Office of Air Quality and Planning Standard (OAQPS), "Determination of Visible Emission Opacity from Stationary Sources Using Computer-Based Photographic Analysis Systems." This document is available from the U.S. Environmental Protection Agency (U.S. EPA); OAQPS; Sector Policies and Programs Division; Measurement Policy Group (D243–02), Research Triangle Park, NC 27711. This document is also available on the Technology Transfer Network (TTN) under Emission Measurement Center Preliminary Methods.

(Auth.: HAR §11-60.1-3, §11-60.1-5, §11-60.1-11, §11-60.1-90; 40 CFR §60.11; §60.13; §60.19; §60.45)

8. For performance evaluations under §60.13(c) and calibration checks under §60.13(d), the following procedures shall be used:
   a. 40 CFR Part 60, Methods 6, 7, and 3B, Appendix A, as applicable, shall be used for the performance evaluations of SO_2 and NO_X continuous monitoring systems. Acceptable alternative methods for 40 CFR Part 60, Methods 6, 7, and 3B, Appendix A, are given in §60.46(d);
   b. Sulfur dioxide or nitric oxide, as applicable, shall be used for preparing calibration gas mixtures under 40 CFR Part 60, Appendix B, Performance Specification 2;
   c. For affected stationary sources burning fossil fuel(s), the span value for a continuous monitoring system measuring the opacity of emissions shall be eighty (80), ninety (90), or one hundred (100) percent. For a continuous monitoring system measuring sulfur oxides or NO_X the span value shall be determined using one of the following procedures:
      i. Except as provided under condition 8.c.ii of this section, SO_2 and NO_X span values shall be determined as follows:

TABLE 3 – SPAN VALUES

Fossil fuel	In parts per million (ppm)	
	Span value for SO_2	**Span value for NO_X**
Gas	([1])	500.
Liquid	1,000	500.
Solid	1,500	1,000.
Combinations	1,000y + 1,500z	500 (x + y) + 1,000z.

[1]Not applicable.

Where:

x = Fraction of total heat input derived from gaseous fossil fuel;
y = Fraction of total heat input derived from liquid fossil fuel; and
z = Fraction of total heat input derived from solid fossil fuel.

ii. As an alternative to meeting the requirements of paragraph 8.c.i of this section, the permittee of an affected facility may elect to use the SO_2 and NO_X span values determined according to sections 2.1.1 and 2.1.2 in Appendix A to Part 75 of this chapter.

d. All span values computed under condition 8.c.i of this section for burning combinations of fossil fuels shall be rounded to the nearest 500 ppm. Span values that are computed under condition 8.c.i of this section shall be rounded off according to the applicable procedures in 40 CFR Part 60, Section 2, Appendix A to Part 75.

e. For a fossil-fuel-fired steam generator that simultaneously burns fossil fuel and nonfossil fuel, the span value of all CEMS shall be subject to the U.S. EPA, Region 9, Administrator's approval.

(Auth.: HAR §11-60.1-3, §11-60.1-5, §11-60.1-11, §11-60.1-90; 40 CFR §60.11; §60.13; §60.19; §60.45)

9. For any CEMS installed under condition E.6 above, the following conversion procedures shall be used to convert the continuous monitoring data into units of the applicable standards lb/MMBtu:

a. When a CEMS for measuring O_2 is selected, the measurement of the pollutant concentration and O_2 concentration shall each be on a consistent basis (wet or dry). Alternative procedures approved by the Administrator of U.S. EPA, Region 9, shall be used when measurements are on a wet basis. When measurements are on a dry basis, the following conversion procedure shall be used:

$$E = CF\left(\frac{20.9}{(20.9 - \%O_2)}\right)$$

Where E, C, F, and % O_2 are determined under condition 10 below.

b. When a CEMS for measuring CO_2 is selected, the measurement of the pollutant concentration and CO_2 concentration shall each be on a consistent basis (wet or dry) and the following conversion procedure shall be used:

$$E = CF_c\left(\frac{100}{\%CO_2}\right)$$

Where E, C, F_c and % CO_2 are determined under condition 10 below.

(Auth.: HAR §11-60.1-3, §11-60.1-5, §11-60.1-11, §11-60.1-90; 40 CFR §60.11; §60.13; §60.19; §60.45)

10. The values used in the equations under conditions 9.a and b above are derived as follows:
    a. E = pollutant emissions, lb/MMBtu.
    b. C = pollutant concentration, lb/dscf, determined by multiplying the average concentration (ppm) for each one-hour (1-hour) period by 2.59×10^{9}M lb/dscf per ppm where M = pollutant molecular weight, lb/lb-mole. M = 64.07 for SO_2 and 46.01 for NO_X.
    c. $\%O_2$, $\%CO_2$ = O_2 or CO_2 volume, expressed as percent, determined with equipment specified under condition 6 above.
    d. F, Fc = a factor representing a ratio of the volume of dry flue gases generated to the calorific value of the fuel combusted (F), and a factor representing a ratio of the volume of CO_2 generated to the calorific value of the fuel combusted (F_c), respectively. Values of F and F_c are given as follows:

        i. For anthracite coal as classified according to ASTM D388, incorporated by reference, see §60.17, F = 10,140 dscf/MMBtu and F_c= 1,980 scf CO_2/MMBtu;
        ii. For subbituminous and bituminous coal as classified according to ASTM D388, incorporated by reference, see §60.17, F = 9,820 dscf/MMBtu and F_c = 1,810 scf CO_2/MMBtu;
        iii. For liquid fossil fuels including crude, residual, and distillate oils, F = 9,220 dscf/MMBtu and F_c = 1,430 scf CO2/MMBtu;
        iv. For gaseous fossil fuels, F = 8,740 dscf/MMBtu. For natural gas, propane, and butane fuels, F_c = 1,040 scf CO2/MMBtu for natural gas, 1,200 scf CO2/MMBtu for propane, and 1,260 scf CO2/MMBtu for butane;
        v. For bark F = 9,640 dscf/MMBtu and F_c = 1,840 scf CO_2/MMBtu. For wood residue other than bark F = 9,280 dscf/MMBtu and F_c = 1,860 scf CO_2/MMBtu; and
        vi. For lignite coal as classified according to ASTM D388, incorporated by reference, see §60.17, F = 9,900 dscf/MMBtu and F_c = 1,980 scf CO_2/MMBtu.

    e. The permittee may use the following equation to determine an F factor dscf/MMBtu on a dry basis, if it is desired to calculate F on a wet basis, consult the Administrator of U.S. EPA, Region 9, or F_c factor scf CO_2/MMBtu on either basis in lieu of the F or F_c factors specified in condition 10.d of this section:

$$F = 10^{-6} \frac{[3.64\ (\%H) + 1.53\ (\%C) + 0.57 + 0.57\ (\%S) + 0.14\ (\%N) - 0.46\ (\%O)]}{\text{GCV (English Units)}}$$

$$F_C = \frac{321 \times 10^{3}\ (\%C)}{\text{GCV (English Units)}}$$

        i. %H, %C, %S, %N, and %O are content by weight of hydrogen, carbon, sulfur, nitrogen, and O_2, expressed as percent, respectively, as determined on the same basis as GCV by ultimate analysis of the fuel fired, using ASTM D3178 or D3176 (solid fuels), or computed from results using ASTM D1137, D1945, or D1946 (gaseous fuels) as applicable. (These five (5) methods are incorporated by reference, see 40 CFR Part 60, §60.17);

ii. GVC is the gross calorific value (Btu/lb) of the fuel combusted determined by the ASTM test methods D2015 or D5865 for solid fuels and D1826 for gaseous fuels as applicable. (These three (3) methods are incorporated by reference, see 40 CFR Part 60, §60.17); and
iii. For affected facilities which fire both fossil fuels and nonfossil fuels, the F or F_c value shall be subject to the U.S. EPA, Region 9, Administrator's approval.

f. For Boiler 3 firing combinations of fossil fuels or fossil fuels and wood residue, the F or F_c factors determined by conditions 10.d or 10.e of this section shall be prorated in accordance with the applicable formula as follows:

$$F = \sum_{i=1}^{n} X_i F_i \quad \text{or} \quad F_c = \sum_{i=1}^{n} X_i (F_c)_i$$

Where:

X_i = Fraction of total heat input derived from each type of fuel, for example, natural gas, bituminous coal, wood residue, etc.;
F_i or $(F_c)_i$ = Applicable F or F_c factor for each fuel type determined in accordance with paragraphs 10.d and 10.e of this section; and
n = Number of fuels being burned in combination.

(Auth.: HAR §11-60.1-3, §11-60.1-5, §11-60.1-11, §11-60.1-90; 40 CFR §60.11; §60.13; §60.19; §60.45)

11. Boiler 3 is subject to the opacity limits in C.2 of this Attachment {§60.42}, that elects to monitor emissions according to the requirements in 7.g above {§60.45(b)(7)}, shall maintain records according to the requirements specified in the following a through c; as applicable to the visible emissions monitoring method used.

a. For each performance test conducted using 40 CFR Part 60, Method 9, Appendix A-4, the permittee shall keep the records including the information specified in the following i through iii:

i. Dates and time intervals of all opacity observation periods;
ii. Name, affiliation, and copy of current visible emission reading certification for each visible emission observer participating in the performance test; and
iii. Copies of all visible emission observer opacity field data sheets.

b. For each performance test conducted using 40 CFR Part 60, Method 22, Appendix A-4, the permittee shall keep the records including the information specified in the following i through iv:

i. Dates and time intervals of all visible emissions observation periods;
ii. Name and affiliation for each visible emission observer participating in the performance test;
iii. Copies of all visible emission observer opacity field data sheets; and

iv. Documentation of any adjustments made and the time the adjustments were completed to the affected facility operation by the owner or operator to demonstrate compliance with the applicable monitoring requirements.

c. For each digital opacity compliance system, the permittee shall maintain records and submit reports according to the requirements specified in the site-specific monitoring plan approved by the Administrator of U.S. EPA, Region 9.

(Auth.: HAR §11-60.1-3, §11-60.1-5, §11-60.1-11, §11-60.1-90; 40 CFR §60.11; §60.13; §60.19; §60.42; §60.43; §60.44; §60.45)

12. Boiler 3, 40 CFR Part 60, Subpart A

If the permittee elects to submit continuous opacity monitoring system (COMS) data for compliance with the opacity standard as provided under 40 CFR Part 60, Subpart A, §60.11(e)(5), the permittee shall conduct a performance evaluation of the COMS as specified in 40 CFR Part 60, Appendix B, Performance Specification 1 (PS-1), before the performance test required under E.5.b above, is conducted. Otherwise, the permittee of Boiler 3, shall conduct a performance evaluation of the COMS or continuous emission monitoring system (CEMS) during any performance test required under G.18 of this Attachment IIA, or within thirty (30) days thereafter, in accordance with the applicable performance specification in 40 CFR Part 60, Appendix B. The permittee shall conduct COMS or CEMS performance evaluations at such other times as may be required by the Administrator of U.S. EPA, Region 9, under Section 114 of the Act.

a. The permittee using a COMS to determine opacity compliance during any performance test required under §60.8 and as described in §60.11(e)(5) shall furnish the Department of Health and the Administrator of U.S. EPA, Region 9, two (2) or, upon request, more copies of a written report of the results of the COMS performance evaluation described in condition 12 above at least ten (10) days before the performance test required under §60.8 is conducted.
b. Except as provided in 12.a above, the permittee of Boiler 3 shall furnish the Department of Health and the Administrator of U.S. EPA, Region 9, within sixty (60) days of completion two (2), or, upon request, more copies of a written report of the results of the performance evaluation.

(Auth.: HAR §11-60.1-3, §11-60.1-5, §11-60.1-11, §11-60.1-90; 40 CFR §60.8; 40 CFR §60.11; §60.13; §60.19)

13. The permittee of a CEMS installed in accordance with the provisions of this permit, shall check the zero (or low level value between zero (0) and twenty (20) percent of span value) and span fifty (50) to one hundred (100) percent of span value) calibration drifts at least once daily in accordance with a written procedure. The zero and span must, as a minimum, be adjusted whenever either the twenty four-hour (24-hour) zero drift or the twenty four-hour (24-hour) span drift exceeds two (2) times the limit of the applicable PS-2 in 40 CFR Part 60, Appendix B. The system must allow the amount of the excess zero and span drift to be recorded and quantified whenever specified. The permittee of a COMS

installed in accordance with the provisions of 40 CFR Part 60, shall automatically, intrinsic to the opacity monitor, check the zero and upscale (span) calibration drifts at least once daily. For a particular COMS, the acceptable range of zero and upscale calibration materials is as defined in the applicable version of 40 CFR Part 60, Appendix B, PS–1. For a COMS, the optical surfaces, exposed to the effluent gases, must be cleaned before performing the zero and upscale drift adjustments, except for systems using automatic zero adjustments. The optical surfaces must be cleaned when the cumulative automatic zero compensation exceeds four (4) percent opacity.

(Auth.: HAR §11-60.1-3, §11-60.1-5, §11-60.1-11, §11-60.1-90; 40 CFR §60.8; 40 CFR §60.11; §60.13; §60.19)

14. Unless otherwise approved by the Administrator of U.S. EPA, Region 9, the following procedures must be followed for a COMS. Minimum procedures must include an automated method for producing a simulated zero opacity condition and an upscale opacity condition using a certified neutral density filter or other related technique to produce a known obstruction of the light beam. Such procedures must provide a system check of all active analyzer internal optics with power or curvature, all active electronic circuitry, including the light source and photo detector assembly, and electronic or electro-mechanical systems and hardware and or software used during normal measurement operation.

    (Auth.: HAR §11-60.1-3, §11-60.1-5, §11-60.1-11, §11-60.1-90; 40 CFR §60.8; 40 CFR §60.11; §60.13; §60.19)

15. Except for system breakdowns, repairs, calibration checks, and zero and span adjustments required under condition E.13 above, all continuous monitoring systems shall be in continuous operation and shall meet minimum frequency of operation requirements as follows:

    a. All continuous monitoring systems referenced by condition E.12 above, for measuring opacity of emissions, shall complete a minimum of one cycle of sampling and analyzing for each successive ten-second (10-second) period and one cycle of data recording for each successive six-minute (6-minute) period; and
    b. All continuous monitoring systems referenced by condition E.12 above, of this section, for measuring emissions, except opacity, shall complete a minimum of one cycle of operation (sampling, analyzing, and data recording) for each successive fifteen-minute (15-minute) period.

    (Auth.: HAR §11-60.1-3, §11-60.1-5, §11-60.1-11, §11-60.1-90; 40 CFR §60.8; 40 CFR §60.11; §60.13; §60.19)

16. All continuous monitoring systems or monitoring devices shall be installed such that representative measurements of emissions or process parameters from Boiler 3 are obtained. Additional procedures for location of continuous monitoring systems contained in the applicable 40 CFR Part 60, Appendix B, Performance Specifications shall be used.

    (Auth.: HAR §11-60.1-3, §11-60.1-5, §11-60.1-11, §11-60.1-90; 40 CFR §60.8; 40 CFR §60.11; §60.13; §60.19)

17. When the pollutants from Boiler 3 or two (2) or more affected stationary sources subject to the same emission standards are combined before being released to the atmosphere, the permittee may install applicable continuous monitoring systems on each source of the pollutant or on the combined sources of the pollutant. When the affected stationary sources are not subject to the same emission standards, separate continuous monitoring systems shall be installed on each source of the pollutant. When the pollutant from one affected source is released to the atmosphere through more than one point, the permittee shall install an applicable continuous monitoring system on each separate pollutant unless the installation of fewer systems is approved by the Administrator of U.S. EPA, Region 9. When more than one continuous monitoring system is used to measure the emissions from one affected stationary source, for example, multiple breechings, multiple outlets, the permittee shall report the results as required from each continuous monitoring system.

    (Auth.: HAR §11-60.1-3, §11-60.1-5, §11-60.1-11, §11-60.1-90; 40 CFR §60.8; 40 CFR §60.11; §60.13; §60.19)

18. The permittee of all continuous monitoring systems for measurement of opacity shall reduce all data to six-minute (6-minute) averages and for continuous monitoring systems other than opacity to one-hour (1-hour) averages for time periods as defined in 40 CFR Part 60, Subpart A, §60.2. Six-minute (6-minute) opacity averages shall be calculated from thirty-six (36) or more data points equally spaced over each six-minute (6-minute) period.

    (Auth.: HAR §11-60.1-3, §11-60.1-5, §11-60.1-11, §11-60.1-90; 40 CFR §60.2; §60.8; 40 CFR §60.11; §60.13; §60.19)

19. For continuous monitoring systems other than opacity, one-hour (1-hour) averages shall be computed as follows, except that the provisions pertaining to the validation of partial operating hours are only applicable for affected sources that are required by the applicable subpart to include partial hours in the emission calculations:

    a. Except as provided under condition 19.c below, for a full operating hour (any clock hour with sixty (60) minutes of unit operation), at least four (4) valid data points are required to calculate the hourly average, that is, one data point in each of the fifteen-minute (15-minute) quadrants of the hour;
    b. Except as provided under condition 19.c below, for a partial operating hour (any clock hour with less than sixty (60) minutes of unit operation), at least one (1) valid data point in each fifteen-minute (15-minute) quadrant of the hour in which the unit operates is required to calculate the hourly average;
    c. For any operating hour in which required maintenance or quality-assurance activities are performed:

        i. If the unit operates in two (2) or more quadrants of the hour, a minimum of two (2) valid data points, separated by at least fifteen-minutes (15-minutes), is required to calculate the hourly average; or
        ii. If the unit operates in only one (1) quadrant of the hour, at least one (1) valid data point is required to calculate the hourly average.

d. If a daily calibration error check is failed during any operating hour, all data for that hour shall be invalidated, unless a subsequent calibration error test is passed in the same hour and the requirements of condition 19.c above are met, based solely on valid data recorded after the successful calibration;
e. For each full or partial operating hour, all valid data points shall be used to calculate the hourly average;
f. Except as provided under condition 19.g below, data recorded during periods of continuous monitoring system breakdown, repair, calibration checks, and zero and span adjustments shall not be included in the data averages computed here in 19.f;
g. The permittee complying with the requirements of §60.7(f)(1) or (2) must include any data recorded during periods of monitor breakdown or malfunction in the data averages;
h. When specified in an applicable subpart, hourly averages for certain partial operating hours shall not be computed or included in the emission averages, for example, hours with less than thirty-minutes (30-minutes) of unit operation under §60.47b(d); and
i. Either arithmetic or integrated averaging of all data may be used to calculate the hourly averages. The data may be recorded in reduced or non reduced form, for example, parts per million (ppm) pollutant and percent O_2.

(Auth.: HAR §11-60.1-3, §11-60.1-5, §11-60.1-11, §11-60.1-90; 40 CFR §60.2; §60.8; 40 CFR §60.11; §60.13; §60.19)

20. All excess emissions shall be converted into units of the standard using the applicable conversion procedures specified in the applicable subpart. After conversion into units of the standard, the data may be rounded to the same number of significant digits used in the applicable subpart to specify the emission limit.

(Auth.: HAR §11-60.1-3, §11-60.1-5, §11-60.1-11, §11-60.1-90; 40 CFR §60.2; §60.8; 40 CFR §60.11; §60.13; §60.19)

21. After receipt and consideration of written application, the Administrator of U.S. EPA, Region 9, may approve alternatives to any monitoring procedures or requirements of 40 CFR Part 60, including, but not limited to the following:

a. Alternative monitoring requirements when installation of a continuous monitoring system or monitoring device specified by 40 CFR Part 60 would not provide accurate measurements due to liquid water or other interferences caused by substances in the effluent gases;
b. Alternative monitoring requirements when the affected stationary source is infrequently operated;
c. Alternative monitoring requirements to accommodate continuous monitoring systems that require additional measurements to correct for stack moisture conditions;
d. Alternative locations for installing continuous monitoring systems or monitoring devices when the pemittee can demonstrate that installation at alternate locations will enable accurate and representative measurements;
e. Alternative methods of converting pollutant concentration measurements to units of the standards;

f. Alternative procedures for performing daily checks of zero and span drift that do not involve use of span gases or test cells;
g. Alternatives to the A.S.T.M. test methods or sampling procedures specified by any subpart;
h. Alternative continuous monitoring systems that do not meet the design or performance requirements in 40 CFR Part 60, Appendix B, Performance Specification 1, but adequately demonstrate a definite and consistent relationship between its measurements and the measurements of opacity by a system complying with the requirements in 40 CFR Part 60, Appendix B, Performance Specification S-1. The Administrator of U.S. EPA, Region 9, may require that such demonstration be performed for each affected stationary source; and
i. Alternative monitoring requirements when the pollutant from Boiler 3 or the combined pollutants from two (2) or more affected stationary sources are released to the atmosphere through more than one point.

(Auth.: HAR §11-60.1-3, §11-60.1-5, §11-60.1-11, §11-60.1-90; 40 CFR §60.2; §60.8; 40 CFR §60.11; §60.13; §60.19)

22. An alternative to the relative accuracy (RA) test specified in 40 CFR Part 60, Appendix B, Performance Specification 2 may be requested as follows:

a. An alternative to the reference method tests for determining RA is available for Boiler 3 with emission rates demonstrated to be less than fifty (50) percent of the applicable standard. The permittee may petition the Administrator of U.S. EPA, Region 9, to waive the RA test in 40 CFR Part 60, Section 8.4, Performance Specification 2, and substitute the procedures in Section 16.0 if the results of a performance test conducted according to the requirements in 40 CFR Part 60, Subpart A §60.8 of this or other tests performed following the criteria in §60.8 demonstrate that the emission rate of the pollutant of interest in the units of the applicable standard is less than fifty (50) percent of the applicable standard. For sources subject to standards expressed as control efficiency levels, the permittee may petition the Administrator of U.S. EPA, Region 9, to waive the RA test and substitute the procedures in 40 CFR Part 60, Appendix B, Section 16.0 Performance Specification 2, if the control device exhaust emission rate is less than fifty (50) percent of the level needed to meet the control efficiency requirement. The alternative procedures do not apply if the continuous emission monitoring system is used to determine compliance continuously with the applicable standard. The petition to waive the RA test shall include a detailed description of the procedures to be applied. Included shall be location and procedure for conducting the alternative, the concentration or response levels of the alternative RA materials, and the other equipment checks included in the alternative procedure. The Administrator of U.S. EPA, Region 9, will review the petition for completeness and applicability. The determination to grant a waiver will depend on the intended use of the CEMS data, for example, data collection purposes other than New Source Performance Standards (NSPS), and may require specifications more stringent than in 40 CFR Part 60, Appendix B, Performance Specification 2, for example, the applicable emission limit is more stringent than 40 CFR Part 60, New Source Performance Standards (NSPS); and
b. The waiver of a CEMS RA test will be reviewed and may be rescinded at such time, following successful completion of the alternative RA procedure, that the CEMS data

indicate that the source emissions are approaching the level. The criterion for reviewing the waiver is the collection of CEMS data showing that emissions have exceeded seventy (70) percent of the applicable standard for seven (7), consecutive, averaging periods as specified by the applicable regulation(s). For sources subject to standards expressed as control efficiency levels, the criterion for reviewing the waiver is the collection of CEMS data showing that exhaust emissions have exceeded seventy (70) percent of the level needed to meet the control efficiency requirement for seven, (7) consecutive, averaging periods as specified by the applicable regulation(s), for example, 40 CFR Part 60, §60.45(g)(2) sulfur dioxide excess emissions and §60.45(g)(3) nitrogen oxides excess emissions, §60.73(e), and §60.84(e). It is the responsibility of the permittee to maintain records and determine the level of emissions relative to the criterion on the waiver of RA testing. If this criterion is exceeded, the permittee shall notify the Administrator of U.S. EPA, Region 9, within ten (10) days of such occurrence and include a description of the nature and cause of the increasing emissions. The Administrator will review the notification and may rescind the waiver and require the permittee to conduct a RA test of the CEMS as specified in 40 CFR Part 60, Appendix B, Section 8.4, Performance Specification 2.

(Auth.: HAR §11-60.1-3, §11-60.1-5, §11-60.1-11, §11-60.1-90; 40 CFR §60.2; §60.8; 40 CFR §60.11; §60.13; §60.19)

23. Records for Boiler 3 shall be maintained of the start and end times of each period of wet scrubber monitoring system downtime, including a description of all repairs or adjustments. Records shall be maintained on the number of incidents and total monitoring device downtime for the applicable reporting period. Periods of monitoring system downtime shall be categorized as:

    a. Monitoring equipment malfunctions;
    b. Non-monitoring equipment malfunctions;
    c. Quality assurance;
    d. Other known causes; and
    e. Unknown causes.

    (Auth.: HAR §11-60.1-3, §11-60.1-5, §11-60.1-11, §11-60.1-90; 40 CFR §60.13; §60.19; §60.45)

24. Start-up, Shut-down, and Equipment Malfunction or Breakdown

    a. The permittee shall maintain records of the date, time, duration, and description of any start-up, shut-down, and equipment malfunction or breakdown periods of Boilers 1, 2, and 3, and appurtenant equipment. These records shall also include:

        i. A description of the reason for the shut-down;
        ii. A description of all the findings, maintenance, or repair work;
        iii. Part(s) repaired or replaced. When replaced, record the part, manufacturer's name, model and serial number; and
        iv. Name and title of the personnel performing the inspection, maintenance or repair work.

b. For Boilers 1, 2, and 3, the multi-cyclone dust collectors and appurtenant equipment, the permittee shall maintain records of the date, time, duration, and description of any equipment malfunction or breakdown periods. These records shall also include:

   i. Description of all the findings, maintenance, or repair work;
   ii. Part(s) repaired or replaced. When replaced, record the part, manufacturer's name, model and serial number;
   iii. Length of time the boilers were operating during the malfunction and repair work; and
   iv. Name and title of the personnel performing the inspection, maintenance or repair work.

c. For Boilers 1, 2, and 3, the venturi wet scrubber the permittee shall maintain records of the date, time, duration, and description of any equipment malfunction or breakdown periods. These records shall include:

   i. A description of all findings, maintenance, adjustments or repair work;
   ii. For Boiler 3, record of monitoring device downtime (periods when the monitor is inoperative and the scrubber remains in operation) shall be maintained and categorized in the following manner:

      (1) Monitoring device malfunctions, for example, pressure or differential pressure instruments;
      (2) Non-monitoring device malfunctions, for example, recording devices;
      (3) Quality assurance, for example, calibration;
      (4) Records shall also be maintained on the number of incidents and total monitoring device downtime for the applicable reporting period; and
      (5) Records shall also be maintained on the number of incidents and total monitoring device downtime for the applicable reporting period.

   iii. Other known and unknown causes; and
   iv. The name and title of the personnel performing the inspection, maintenance or repair work.

(Auth.: HAR §11-60.1-3, §11-60.1-5, §11-60.1-11, §11-60.1-16, §11-60.1-90;
40 CFR §60.13; §60.19; §60.45)

25. For Boilers 1, 2, and 3, the date and start and end times of each period when the boilers emissions are not within the permit limits in Section C.1, the magnitude of, and cause of the emissions, and the corrective action taken or preventive measures adopted. Records of the time during the boiler are not within the limits shall be maintained and categorized in the following:

   a. Start-up and shut-down;
   b. Control equipment problems;
   c. Process problems;
   d. Length of time;

e. Other known specified causes; and
f. Unknown causes.

(Auth.: HAR §11-60.1-3, §11-60.1-5, §11-60.1-11, §11-60.1-16, §11-60.1-90; 40 CFR §60.13; §60.19; §60.45)

Section F. Notification and Reporting Requirements

1. Notification and reporting requirements pertaining to the following events shall be done in accordance with Attachment I, Standard Conditions Nos. 16, 17, and 25, respectively:

   a. Intent to shut down air pollution control equipment for necessary scheduled maintenance;
   b. Emissions of air pollutants in violation of HAR, Chapter 11-60.1 or this permit (excluding technology-based emission exceedences due to emergencies); and
   c. Permanent discontinuance of construction, modification, relocation or operation of the facility covered by this permit.

   (Auth.: HAR §11-60.1-5, §11-60.1-8, §11-60.1-15, §11-60.1-16, §11-60.1-90; 40 CFR §60.19; SIP §11-60-15, SIP §11-60-16)[2]

2. For Boiler 3, a notification of any physical or operational change which may increase the emission rate of any air pollutant to which a standard applies, unless that change is specifically exempted under an applicable subpart or in §60.14(e). This notice shall be postmarked sixty (60) days or as soon as practicable before the change is commenced and shall include information describing the precise nature of the change, present and proposed emission control systems, productive capacity of Boiler 3 before and after the change, and the expected completion date of the change. The Department of Health or the Administrator of U.S. EPA, Region 9, may request additional relevant information subsequent to this notice.

   (Auth.: HAR §11-60.1-5, §11-60.1-8, §11-60.1-15, §11-60.1-16, §11-60.1-90; 40 CFR §60.7; §60.19)

3. For Boiler 3, a notification of the date upon which demonstration of the continuous monitoring system performance commences in accordance with §60.13(c). Notification shall be postmarked not less than thirty (30) days prior to such date.

   (Auth.: HAR §11-60.1-5, §11-60.1-8, §11-60.1-15, §11-60.1-16, §11-60.1-90; 40 CFR §60.7; §60.19)

4. For Boiler 3, a notification of the anticipated date for conducting the opacity observations required by 40 CFR Part 60, §60.11(e)(1). The notification shall also include, if appropriate, a request for the Department of Health or the Administrator of U.S. EPA, Region 9, to

provide a visible emissions reader during a performance test. The notification shall be postmarked not less than thirty (30) days prior to such date.

(Auth.: HAR §11-60.1-5, §11-60.1-8, §11-60.1-15, §11-60.1-16, §11-60.1-90; 40 CFR §60.7; §60.19)

5. For Boiler 3, a notification that continuous opacity monitoring system (COMS or transmissometer) data results will be used to determine compliance with the applicable opacity standard during a performance test required by §60.8 in lieu of Method 9 observation data as allowed by §60.11(e)(5) of Part 60. This notification shall be postmarked not less than thirty (30) days prior to the date of the performance test.

   (Auth.: HAR §11-60.1-5, §11-60.1-8, §11-60.1-15, §11-60.1-16, §11-60.1-90; 40 CFR §60.7; §60.11; §60.19)

6. A copy shall be submitted to the Department of Health of all request(s) by the permittee to the Administrator of U.S. EPA, Region 9, for alternate COMS and or CEMS requirements to C.6. A copy shall be submitted to the Department of Health of all response(s) from the Administrator of U.S. EPA, Region 9, to the permittee to the request for alternate COMS and or CEMS procedures to C.6.

   (Auth.: HAR §11-60.1-3, §11-60.1-5, §11-60.1-11, §11-60.1-90; 40 CFR §60.11; 40 CFR §60.13; 40 CFR §60.19; 40 CFR §60.45)

7. The permittee shall submit a written report of all revisions to the Coal Fugitive Emissions Control Plan.

   (Auth.: HAR §11-60.1-8, §11-60.1-15, §11-60.1-16, §11-60.1-90; 40 CFR §60.19; §60.45)

8. The permittee shall report **within five (5) calendar days** *any deviations from permit requirements*, including those attributable to upset conditions, the probable cause of such deviations and any corrective actions or preventative measures taken. Corrective actions may include a requirement for additional stack testing or more frequent monitoring, or could trigger implementation of a corrective action plan.

   (Auth.: HAR §11-60.1-3, §11-60.1-15, §11-60.1-16, §11-60.1-16, §11-60.1-90; 40CFR §60.19; SIP §11-60-16)[2]

9. The permittee shall notify the Department of Health in writing **at least thirty (30) days prior to** *completing the installation and operation of the CEMS*. After the thirty (30) day notice, if there is a delay in the installation and operation of the CEMS, the permittee shall notify the DOH at least seven (7) days prior notice of the rescheduled date of installation.

   (Auth.: HAR §11-60.1-3, §11-60.1-90; 40 CFR §60.8 (d); 40 CFR §60.19; SIP §11-60-15)[2]

10. The permittee shall notify the Department of Health in writing **at least thirty (30) days prior to** *conducting a source performance test* as required in this Attachment, Section F. After the thrity-day (30-day) notice, if there is a delay in the performance test, the permittee shall notify the DOH at least seven (7) days prior notice of the rescheduled date of the test.

    (Auth.: HAR §11-60.1-3, §11-60.1-90; ; 40 CFR §60.8 (d); 40 CFR §60.19; SIP §11-60-15)[2]

11. ***Within sixty (60) calendar days*** *after the completion of a source performance test*, the permittee shall submit to the Department of Health the performance test report pursuant to Section F of this Attachment.

    (Auth.: HAR §11-60.1-3, §11-60.1-90; 40 CFR §60.19; SIP §11-60-15)[2]

12. The permittee shall submit semiannually the following written report(s) to the Department of Health. Each report shall be submitted within sixty (60) days after the end of each semi-annual reporting period (January 1 - June 30 and July 1 - December 31) and shall include the following:

    a. Fuel Oil Consumption and Certification
    b. Specification Used Oil Certification

        i. The total amount of specification used oil fired on a monthly and a rolling twelve-month (12-month) basis shall be recorded and submitted; and
        ii. A copy of two (2) different laboratory analysis of constituents/properties for in-house and commercial sources shall be submitted to the DOH.

    c. Visible Emissions

        Any opacity exceedances as determined by the required VE monitoring. Each exceedance reported shall include the date, six (6) minute average opacity reading, possible reason for exceedance, duration of exceedance, and corrective actions taken. If there were no exceedances, the permittee shall submit in writing a statement indicating that for each equipment there were no exceedances for that semi-annual period. The enclosed Monitoring Report Form: ***Visible Emissions*** shall be used, signed and dated by the responsible official.

    d. Sugar Dryer Production

        The enclosed Monitoring/Annual Emission Report Form: ***Sugar Dryer Production*** shall be used, signed and dated by the responsible official. The permittee shall record the total amount of premium sugar dried on a monthly and twelve-month (12-month) rolling basis

    e. Excess Emissions

        Excess emission and monitoring system performance (MSP) reports shall be submitted by the permittee to the Department of Health and U.S. EPA, Region 9, Administrator

semiannually for each six-month (6-month) period in the calendar year. All semiannual reports shall be postmarked by the 60th day following the end of each six-month (6-month) period. Each excess emission and MSP report shall include the information required in §60.7(c) or F. The written report shall include the following:

i. The magnitude of excess emissions computed in accordance with 40 CFR 60.13(h), any concurrent data, any conversion factors used, the date and time of commencement and completion of each time period of excess emissions, and corrective actions taken;
ii. Specific identification of each period of excess emissions that occurs during startups, shutdowns, and malfunctions of the boiler. The nature and cause of any malfunction (if known) and the corrective action taken or preventative measures adopted, shall also be reported;
iii. The date and time identifying each period during which CEMS was inoperable except for zero and span checks. The nature of each system repair or adjustment shall be described;
iv. The report shall state if no excess emissions has occurred. The report shall also state if the CEMS operated properly during the period and was not subject to any repairs or adjustments except for zero and span checks;
v. For purposes of this Covered Source Permit, periods of excess emissions and monitoring systems (MS) downtime that shall be reported are defined as follows:

(1) For opacity COMS:

(a) For Boilers 1 and 2 (Stack 1) subject to the opacity standard of Section C.2, excess emissions are defined as any six-minute (6-minute) period during which the average opacity of emissions exceeds the forty (40) percent opacity given, except that one (1) six-minute (6-minute) average per hour of up to sixty (60) percent opacity need not be reported;
(b) For Boilers 1 and 2 (Stack 1), while burning coal which provides ninety (90) percent or more of the heat input subject to the opacity standard of Section C.2, excess emissions are defined as any six-minute (6-minute) period during which the average opacity of emissions exceeds the twenty (20) percent opacity given, except that one (1) six-minute (6-minute) average per hour of up to sixty (60) percent opacity need not be reported; and
(c) For Boiler 3 (Stack 2) subject to the opacity standard of Section C.2, excess emissions are defined as any six-minute (6-minute) period during which the average opacity of emissions exceeds twenty (20) percent opacity, except that one (1) six-minute (6-minute) average per hour of up to twenty-seven (27) percent opacity need not be reported.

(2) Boiler 3 excess emissions of sulfur dioxide while the CEMS are operating are defined as:

(a) For Boiler 3, electing not to comply with 40 CFR Part 60, Subpart D, §60.43(d) or Table 1, or C.1.ii, any three-hour (3-hour) period during which

the average emissions, arithmetic average of three (3) contiguous one-hour (1-hour) periods, of SO_2 as measured by a CEMS exceed the applicable standard in §60.43 or Table 1; or

(b) For Boiler 3 electing to comply with §60.43(d) or Table 1, or C.1.ii any thirty (30) operating day period during which the average emissions, arithmetic average of all one-hour (1-hour) periods during the thirty (30) operating days, of SO_2 as measured by a CEMS exceed the applicable standard in §60.43 or Table 1. Boiler 3 complying with the thirty-day (30-day) SO_2 standard shall use the most current associated SO_2 compliance and monitoring requirements in §60.48D.a and §60.49D.a of Subpart Da of 40 CFR Part 60 or §60.45b and §60.47b of Subpart Db of Part 60, as applicable.

(3) Boiler 3 excess emissions of nitrogen oxides while operating with CEMS are defined as:

For Boiler 3, electing not to comply with 40 CFR Part 60 §60.44(e) or Table 1, or C.1.b.ii any three-hour (3-hour) period during which the average emissions, arithmetic average of three (3) contiguous one-hour (1-hour) periods, exceed the applicable standards in Table 1 or C.1.b.ii; orii. For Boiler 3, electing to comply with §60.44(e) or C.1.a.iv, any thirty (30) operating day period during which the average emissions, arithmetic average of all one-hour (1-hour) periods during the thirty (30) operating days, of $_{NOX}$ as measured by a CEMS exceed the applicable standard in 6.c.i above. Boiler 3 complying with the thirty (30) day NO_X standard shall use the most current associated NO_X compliance and monitoring requirements in §§60.48Da and §60.49Da of Subpart Da of 40 CFR Part 60.

(4) For Boiler 3, excess emissions of particulate matter while using CEMs to measure are defined as follows:

If a CEMS for particulate matter is installed, excess emissions are defined as an operating day period during which the average emissions, arithmetic average of all operating one-hour (1-hour) periods, exceed the applicable standards in 40 CFR Part 60, §60.42. Affected facilities using PM CEMS must follow the most current applicable compliance and monitoring provisions in §§60.48Da and §60.49Da of Subpart Da of Part 60.

(5) For Boiler 3, if a CEMS for oxygen or carbon dioxide is installed, excess emissions are defined as an operating day period during which the average emissions, arithmetic average of all operating one-hour (1-hour) periods, exceed the applicable standards in E.9.a and E.9.b. Affected stationary sources using PM CEMS must follow the most current applicable compliance and monitoring provisions in §60.48Da and 60.49Da of Subpart Da of Part 60.

The enclosed Boiler 3 Excess Emissions and Monitoring System Performance Summary (EEMSPS) Report shall be used, signed and dated by the responsible.

(Auth.: HAR §11-60.1-8, §11-60.1-15, §11-60.1-16, §11-60.1-90; 40 CFR §60.7, CFR §60.19; 40 CFR§60.45)

13. Compliance Certification

During the permit term, the permittee shall submit at least annually to the Department of Health and U.S. EPA, Region 9, the attached **Compliance Certification Form** pursuant to HAR, Subsection 11-60.1-86. The permittee shall indicate whether or not compliance is being met with each term or condition of this permit. The compliance certification shall include at a minimum the following information:

a. The identification of each term or condition of the permit that is the basis of the certification;
b. The compliance status;
c. Whether compliance was continuous or intermittent;
d. The methods used for determining the compliance status of the source currently and over the reporting period;
e. Any additional information indicating the source's compliance status with any applicable enhanced monitoring and compliance certification including the requirements of Section 114(a)(3) of the Clean Air Act or any applicable monitoring and analysis provisions of Section 504(b) of the Clean Air Act;
f. Brief description of any deviations including identifying as possible exemption to compliance any periods during which compliance is required and in which the excursion or exceedances as defined in 40 CFR 64 occurred; and
g. Any additional information as required by the Department of Health, including information to determine compliance.

The compliance certification shall be submitted **within sixty (60) days after** the end of each calendar year, and shall be signed and dated by the responsible official.

Upon written request of the permittee, the deadline for submitting the compliance certification may be extended if the Department of Health determines that reasonable justification exists for the extension.

(Auth.: HAR §11-60.1-86, §11-60.1-90; 40 CFR §60.19; SIP §11-60-15)[2]

14. Annual Emissions Reporting

As required by Attachment IV and in conjunction with the requirements of Attachment III, Annual Fee Requirements, the permittee shall submit **annually** the total tons per year emitted of each regulated air pollutant, including hazardous air pollutants. The reporting of annual emissions is due **within sixty (60) days following** the end of each calendar year.

The enclosed Annual Emissions Report Form: **Boilers,** shall be used, signed, and dated by the responsible official.

Upon the written request of the permittee, the deadline for annual emissions reporting may be extended if the Department of Health determines that reasonable justification exists for the extension.

(Auth.: HAR §11-60.1-3, HAR §11-60.1-5, §11-60.1-90; 40 CFR §60.19)

15. The permittee shall submit ASTM laboratory test results of the three (3) highest sulfur content for all fuels burned in Boilers 1, 2, and 3 annually, within sixty (60) calendar days at the end of the year.

    (Auth.: HAR §11-60.1-3, §11-60.1-90; 40 CFR §60.17)

16. If the alternate procedure for COMS or/and CEMS for Boiler 3 is approved by the Administrator of U.S. EPA, Region 9, then, in accordance to Hawaii Administrative Rules (HAR) Subchapter 5, the permittee shall submit an, "Application for a Minor Modification to a Covered Source," to the Department of Health to add verbatim the approved alternate procedure into this permit.

    (Auth.: HAR §11-60.1-3, §11-60.1-90; 40 CFR §60.17)

Section G. Testing Requirements

1. The permittee shall conduct **on an annual basis** a performance test as required in 40 CFR Part 60, §60.8, to determine compliance with mass rate of discharge for particulate matter, sulfur dioxide and nitrogen oxide, as applicable from each boiler and respective exhaust stack while fired on:

    a. One hundred (100) percent biomass fuel by Boilers 1, 2, and 3, to determine the mass rate of discharge of particulate matter;
    b. Ninety - one hundred (90 - 100) percent coal by Boilers 1 and 2, to determine the mass rate of discharge of particulate matter and nitrogen oxides;
    c. One hundred (100) percent coal by Boiler 3, to determine the mass rate of discharge of particulate matter, sulfur dioxide, and nitrogen oxides; and
    d. One hundred (100) percent fuel oil by Boiler 3, to determine the mass rate of discharge of particulate matter, sulfur dioxide, and nitrogen oxides.

    (Auth.: HAR §11-60.1-5, §11-60.1-11, §11-60.1-90; SIP §11-60-15; CFR §60.8)[2]

2. The performance test shall be conducted during the maximum fuel feed rate to determine compliance. The permittee shall conduct the test methods and procedures that are set forth below and are referenced in 40 CFR Part 60, Appendix A of:

    a. Method 5 or 201A for front half concentration of particulate matter and Method 8 or 202 for back half concentration of particulate;

b. Method 1 for sample and velocity traverse;
c. Method 2 or Method 19 for velocity and volumetric flow rate;
d. Method 3A for gas analysis;
e. Method 7E for determination of nitrogen oxides emissions;
f. Method 4 for moisture content of stack gas; and
g. Method 6C for sulfur dioxide.

Upon written request and justification by the permittee, the Department of Health may waive the requirement for, or a portion of, a specific **annual** source performance test. The waiver request is to be submitted prior to the required test and must include documentation justifying such action. Documentation should include, but is not limited to, the results of prior tests indicating compliance by a wide margin, documentation of continuing compliance, and further that operations of the source have not changed since the previous source test.

(Auth.: HAR §11-60.1-5, §11-60.1-11, §11-60.1-90; 40 CFR §60.8; §60.46, SIP §11-60-15)[2]

3. Note that Method 5 cannot be used under the following conditions:

   a. Cyclonic or swirling gas flow at the sampling location;
   b. Stack or duct with a diameter less than twelve (12) inches or a cross-sectional area less than 113 square inches; or
   c. Sampling location less than two (2) stack or duct diameters downstream or less than half diameter upstream from a flow disturbance.

   (Auth.: HAR §11-60.1-5, §11-60.1-11, §11-60.1-90; 40 CFR §60.8; §60.45; SIP §11-60-15)[2]

4. The permittee shall provide sampling and testing facilities at its own expense.

   (Auth.: HAR §11-60.1-5, §11-60.1-11, §11-60.1-90; SIP §11-60-15)[2]

5. Unless otherwise specified in the applicable subpart, each performance test shall consist of three (3) separate runs using the applicable test method. Each run shall be conducted for the time and under the conditions specified in the applicable standard. For the purpose of determining compliance with an applicable standard, the arithmetic mean of the results from the three (3) runs shall apply. In the event that a sample is accidentally lost or conditions occur in which one of the three (3) runs must be discontinued because of forced shutdown, failure of an irreplaceable portion of the sample train, extreme meteorological conditions, or other circumstances, beyond the permitee's control, compliance may, upon the Administrator's approval, be determined using the arithmetic mean of the results of the other two (2) runs.

   (Auth.: HAR §11-60.1-11, §11-60.1-90, 40 CFR §60.8, §60.8 (f); §60.45; SIP §11-60-15)[1,2]

6. For Method 5, the sampling time and sampling volume for each run shall be at least sixty (60) minutes and the minimum sample volume shall be at least thirty (30) dry cubic feet at standard conditions (dscf).

   (Auth.: HAR §11-60.1-5, §11-60.1-11, §11-60.1-90; 40 CFR §60.8; SIP §11-60-15)[2]

7. Particulate emissions shall be reported in two categories:

   a. Front half (filter and probe); and
   b. Front and back half (probe, filter and impingers). When conducting back half cleanup, all connectors and tubing of the back half sampling train up to and including the first impinger shall be properly rinsed with acetone. Connecting glassware after the first impinger and the other impingers shall be rinsed with water. All rinses shall be included in the analysis for the back half.

   (Auth.: HAR §11-60.1-5, §11-60.1-11, §11-60.1-90; 40 CFR §60.8; §60.45; SIP §11-60-15)[2]

8. Pounds per hour.

   For each run on Boilers 1 and 2, the emission rate of particulate matter shall be determined by the following equation:

   e = Qs x cs

   Where:
   e = particulate matter (PM) emission rate in pounds/hour (lb/hr);
   Qs = volumetric flow rate of the total effluent in dry standard cubic feet/hour (dscf/hr) as determined in accordance with Method 2 or Method 19; and
   Cs = concentration of PM in lb/dscf as determined in accordance with Method 5 or 201A, front half measurement only

   (Auth.: HAR §11-60.1-5, §11-60.1-11, §11-60.1-90; SIP §11-60-15)[2]

9. Pounds per million Btu.
   For each run on Boilers 1 and 2, the emissions of particulate matter and nitrogen oxides expressed in pounds per million BTU shall be determined by the following procedure:

   $E = C_d F_c (100 / \% CO_{2d})$

   Where:

   E = pollutant emission in lb/million BTU (lb/MMBtu);
   C_d = pollutant concentration, dry basis (lb/dscf, front half measurement only);
   $\%CO_{2d}$ = carbon dioxide content by volume (expressed as percent), dry basis, as determined by Method 3; and

F_c = a factor representing a ratio of the volume of carbon dioxide generated to the calorific value of the fuel combusted. For bituminous coal, the factor is F_c = 1,800 scf CO_2/MMBtu at standard conditions of 68°F and 29.92 inches Hg.

(Auth.: HAR §11-60.1-4, §11-60.1-11, §11-60.1-90; SIP §11-60-15)[2]

10. For each run, on Boilers 1 and 2, the coal feed rate in pounds/hour shall be provided. The permittee shall document the methodology by which each coal feed rate was determined. The coal shall be sampled and analyzed for the heating value per unit weight.

    (Auth.: HAR §11-60.1-5, §11-60.1-11, §11-60.1-90; SIP §11-60-15)[2]

11. For each run, on Boilers 1 and 2, the bagasse feed rate in pounds/hour shall be provided. The permittee shall document the methodology by which each bagasse feed rate was determined.

    (Auth.: HAR §11-60.1-5, §11-60.1-11, §11-60.1-90; SIP §11-60-15)[2]

12. In addition to the stack test data, on Boilers 1 and 2, the following data shall be recorded during the test as follows:

    a. Water ratio in gallons per minute per 1,000 ACFM;
    b. Total water injection rate and pressure at spray bar. Permanent gauges shall be installed, operated, calibrated, and maintained;
    c. Pressure drop through wet scrubber. Permanent gauges shall be installed, operated, calibrated; and maintained;
    d. Opacity reading; and
    e. Pressure drop through each of the multicyclones. Permanent gauges shall be installed, operated, calibrated, and maintained.

    (Auth.: HAR §11-60.1-4, §11-60.1-11, §11-60.1-90; SIP §11-60-15)[2]

13. For each fuel test run, on Boiler 3, the fuel oil feed rate in gallons per hour shall be provided. The permittee shall document the methodology by which each fuel oil feed rate was determined.

    (Auth.: HAR §11-60.1-4, §11-60.1-11, §11-60.1-90; 40 CFR §60.8; SIP §11-60-15)[2]

14. The tests shall be made at the expense of the permittee and shall be conducted at the maximum expected operating capacity of the source. The Department of Health may monitor the tests, and all test data and results must be submitted to the Department of Health no later than sixty (60) days after completion of the tests.

    (Auth.: HAR §11-60.1-3, §11-60.1-5, §11-60.1-11, §11-60.1-90; SIP §11-60-15)[2]

15. **At least thirty (30) days prior** *to the performance test*, the permittee shall submit a written performance test plan to the Department of Health that describes the test duration, test locations, test methods, source operation and other parameters, for example, type of fuel to

be fired, that may affect test results. Such a plan shall conform to U.S. EPA guidelines including quality assurance procedures. A test plan or quality assurance plan that does not have the approval of the Department of Health may be grounds to invalidate any test and require a retest.

(Auth.: HAR §11-60.1-5, §11-60.1-11, §11-60.1-90; CFR §60.8; SIP §11-60-15)[2]

16. The performance tests shall be conducted under such conditions and in accordance to the test methods and procedures stipulated in Attachment II, Section G. Any deviations from these conditions, test methods, or procedures may be cause for rejection of the test results unless such deviations are approved by the Department of Health before the tests.

    (Auth.: HAR §11-60.1-5, §11-60.1-11, §11-60.1-90; 40 CFR §60.8 (b); SIP §11-60-15) [2]

17. Additional emissions testing requirements shall follow in accordance with the standard conditions found in Attachment I of this permit.

    (Auth.: HAR §11-60.1-3, §11-60.1-5, §11-60.1-11, §11-60.1-90; SIP §11-60-15)[2]

18. Test Methods and Procedures for Boiler 3

    a. In conducting the performance tests required in 40 CFR Part 60, §60.8, the permittee shall use as reference methods and procedures as specified in Part 60, Appendix A, or other methods and procedures as specified in 40 CFR Part 60, §60.46, except as provided in §60.8(b). Acceptable alternate methods must be approved by the Administrator of U.S. EPA, Region 9.
    b. The permittee shall determine compliance with the particulate matter, sulfur dioxide, and nitrogen oxide conditions in Attachment IIA, Section C.1 as follows:

        i. The emission rate (E) of particulate matter (PM), sulfur dioxide (SO_2), and nitrogen oxide (NO_X) shall be computed for each run using the following equation:

            $E = CF_d (20.9) / (20.9 - \% O_2)$

            Where:
            E = emission rate of pollutant in lb/MMBtu;
            C = concentration of pollutant in lb/dscf;
            $\% O_2$ = oxygen concentration, percent dry basis; and
            F_d =factor as determined from Method 19 of Part 60, Appendix A.

        ii. Method 5 of Part 60, Appendix A shall be used to determine the particulate matter (PM) concentration (C) at affected facilities without wet flue-gas desulfurization (FGD) systems and Method 5B of Appendix A of 40 CFR Part 60, shall be used to determine the PM concentration (C) after FGD systems.

            (1) The sampling time and sample volume for each run shall be at least sixty (60) minutes and 30 dscf. The probe and filter holder heating systems in the sampling train shall be set to provide an average gas temperature of 320 ± 25 °F.

(2) The emission rate correction factor, integrated or grab sampling and analysis procedure of Method 3B of Appendix A, Part 60, shall be used to determine the O_2 concentration ($\%O_2$). The O_2 sample shall be obtained simultaneously with, and at the same traverse points as, the particulate sample. If the grab sampling procedure is used, the O_2 concentration for the run shall be the arithmetic mean of the sample O_2 concentrations at all transverse points.
(3) If the particulate run has more than twelve (12) traverse points, the O_2 traverse points may be reduced to twelve (12) provided that Method 1 of Appendix A, Part 60 is used to locate the twelve (12) O_2 traverse points.

iii. Method 9 of Part 60, Appendix A and the procedures in §60.11 shall be used to determine opacity.
iv. Method 6 of Part 60, Appendix A shall be used to determine the SO_2 concentration.

(1) The sampling site shall be the same as that selected for the particulate sample. The sampling location in the duct shall be at the centroid of the cross section or at a point no closer to the walls than 3.28 ft. The sampling time and sample volume for each sample run shall be at least twenty (20) minutes and 0.71 dscf. Two (2) samples shall be taken during a one-hour (1-hour) period, with each sample taken within a thirty (30) minute interval.
(2) The emission rate correction factor, integrated sampling and analysis procedure of Method 3B of Appendix A, Part 60, shall be used to determine the O_2 concentration ($\%O_2$). The O_2 sample shall be taken simultaneous with, and at the same point as, the SO_2 sample. The SO_2 emission rate shall be computed for each pair of SO_2 and O_2 samples. The SO_2 emission rate (E) for each run shall be the arithmetic mean of the results of the two pairs of samples.

v. Method 7 of Part 60, Appendix A shall be used to determine the NO_X concentration.

(1) The sampling site and location shall be the same as for the SO_2 sample. Each run shall consist of four (4) grab samples, with each sample taken at about fifteen (15)-minute intervals.
(2) For each NO_X sample, the emission rate correction factor, grab sampling and analysis procedure of Method 3B, Part 60, Appendix A shall be used to determine the O_2 concentration ($\%O_2$). The sample shall be taken simultaneously with, and at the same point as, the NO_X sample.
(3) The NO_X emission rate shall be computed for each pair of NO_X and O_2 samples. The NO_X emission rate (E) for each run shall be the arithmetic mean of the results of the four (4) pairs of samples.

c. When combinations of fossil fuels or fossil fuel and wood residue are fired, the permittee, in order to compute the prorated standard as shown in Attachment IIA, Section C.1.b.i and C.1.b.ii, shall determine the percentage, “x, y, or z” of the total heat input derived from each type of fuel as follows:

i. The heat input rate of each fuel shall be determined by multiplying the gross calorific value of each fuel fired by the rate of each fuel burned;

ii. ASTM Methods D2015-77, or 96 or D5865-98 solid fuels, D240-76, or 92 liquid fuels, or D1826-77, or 94 gaseous fuels (see 40 CFR §60.17, all of these methods are incorporated by reference or other equivalent or more current methods) shall be used to determine the gross calorific values of the fuels. The method used to determine the calorific value of wood residue must be approved by the Administrator of U.S. EPA, Region 9; and

iii. Suitable methods shall be used to determine the rate of each fuel burned during each test period, and a material balance over the steam generating system shall be used to confirm the rate.

d. The permittee may use the following as alternatives to the reference methods in this section or in other sections as specified:

i. The emission rate (E) of PM, SO_2 and NO_X may be determined by using the F_C factor, provide that the following procedure is used:

(1) The emission rate (E) shall be computed using the following equation:

$$E = CF_c\left(\frac{100}{\%CO_2}\right)$$

Where:

E = Emission rate of pollutant, lb/MMBtu;
C = Concentration of pollutant, lb/dscf;
$\%CO_2$ = CO_2 concentration, percent dry basis; and
F_C = Factor as determined in appropriate sections of Method 19 of Part 60, Appendix A.

(2) If and only if the average F_C factor in Method 19, 40 CFR Part 60, Appendix A is used to calculate E and either E is from 0.97 to 1.00 of the emission standard or the relative accuracy of a continuous emission monitoring system is from seventeen (17) to twenty (20) percent, then three (3) runs of Method 3B, Appendix A of Part 60, shall be used to determine the O_2 and CO_2 concentration according to the procedures in paragraph b.ii.(2), b.iv.(1), or b.v.(2) above. Then if F_o (average of three (3) runs), as calculated from the equation in Method 3B of CFR Part 60, Appendix A, is more than ±3 percent than the average F_o value, as determined from the average values of F_d and F_c in Method 19 of CFR Part 60, Appendix A, that is, $F_{oa} = 0.209 (F_{da}/F_{ca})$, then the following procedure shall be followed:

(a) When F_o is less than 0.97 F_{oa}, then E shall be increased by that proportion under 0.97 F_{oa}, for example, if F_o is 0.95 F_{oa}, E shall be increased by 2 percent. This recalculated value shall be used to determine compliance with the emission standard.

(b) When F_o is less than 0.97 F_{oa} and when the average difference (diff) between the continuous monitor minus the reference methods is negative,

then E shall be increased by that proportion under 0.97 F_{oa}, if F_o is 0.95 F_{oa}, E shall be increased by two (2) percent. This recalculated value shall be used to determine compliance with the relative accuracy specification.

(c) When F_o is greater than 1.03 F_{oa} and when the average diff is positive, then E shall be decreased by that proportion over 1.03 F_{oa}, for example, if F_o is 1.05 F_{oa}, E shall be decreased by two (2) percent. This recalculated value shall be used to determine compliance with the relative accuracy specification.

ii. For Method 5 or 5B of 40 CFR Part 60, Appendix A-3, Method 17 of Part 60, Appendix A-6, may be used at stationary sources with or without wet flue-gas desulfurization (FGD) systems, if the stack gas temperature at the sampling location does not exceed an average temperature of 320 °F. The procedures of 40 CFR Part 60, Method 5B, Sections 8.1 and 11.1, Appendix A-3, may be used with 40 CFR Part 60, Method, Appendix A-6, only if it is used after wet FGD systems. 40 CFR Part 60, Method 17, Appendix A-6, shall not be used after wet FGD systems if the effluent gas is saturated with water droplets.

iii. Particulate matter and SO_2 may be determined simultaneously with the Method 5 of Appendix A, 40 CFR Part 60, sampling train provided that the following changes are made:

(1) The filter and impinger apparatus in sections 2.1.5 and 2.1.6 of Method 8 of Appendix A, 40 CFR Part 60, is used in place of the condenser (Section 2.1.7) of Method 5 of Appendix A, 40 CFR Part 60; and

(2) All applicable procedures in 40 CFR Part 60, Method 8 of Appendix A, for the determination of SO_2 (including moisture) are used:

iv. For Method 6, Appendix A, 40 CFR Part 60, Method 6C, of Appendix A, 40 CFR Part 60, may be used. 40 CFR Part 60, Method 6A of Appendix A, may also be used whenever 40 CFR Part 60, Methods 6 and 3B of Appendix A, data are specified to determine the SO_2 emission rate, under the conditions in paragraph d.i above.

v. For Method 7 of Appendix A, 40 CFR Part 60, Method 7A, 7C, 7D, or 7E of Appendix A, 40 CFR Part 60, may be used. If Method 7C, 7D, or 7E of Appendix A, 40 CFR Part 60, is used, the sampling time for each run shall be at least one (1) hour and the integrating sampling approach shall be used to determine the O_2 concentration ($\%O_2$) for the emission rate correction factor.

vi. For Method 3, Appendix A of 40 CFR Part 60, Method 3A or 3B of Appendix A of 40 CFR Part 60, may be used.

vii. For Method 3B of Appendix A, 40 CFR Part 60, Method 3A of Appendix A of 40 CFR Part 60, may be used.

(Auth.: HAR §11-60.1-5, §11-60.1-11, §11-60.1-90; 40 CFR §60.8; §60.46; SIP §11-60-15)[2]

Section H. Agency Notifications

Any document (including reports) required to be submitted by this Covered Source Permit shall be certified as being true, accurate and complete by a responsible official in accordance with Attachment I, Standard Condition No. 28, and shall be mailed to the following address:

Clean Air Branch
Environmental Management Division
Hawaii Department of Health
919 Ala Moana Boulevard, Room 203
Honolulu, HI 96814

All correspondence to the Hawaii Department of Health associated with this Covered Source Permit shall have duplicate copies forwarded to:

Chief
Permits Office, (Attention: Air-3)
Air Division
U.S. Environmental Protection Agency
Region 9
75 Hawthorne Street
San Francisco, CA 94105

(Auth.: HAR §11-60.1-4, §11-60.1-90)

[1] The citations to the Code of Federal Regulations (CFR) identified under a particular condition, indicate that the permit condition complies with the specified provision(s) of the CFR. Due to the integration of the preconstruction and operating permit requirements, permit conditions may incorporate more stringent requirements than those set forth in the CFR.

[2] The citations to the State Implementation Plan (SIP) identified under a particular condition, indicate that the permit condition complies with the specified provision(s) of the SIP.

PROPOSED

ATTACHMENT IIB: SPECIAL CONDITIONS
DIESEL ENGINES AND DIESEL ENGINE GENERATORS
COVERED SOURCE PERMIT NO 0054-01-C

Issuance Date: **Expiration Date:**

In addition to the standard conditions of the Covered Source Permit, the following special conditions shall apply to the permitted facility:

Section A. Equipment Description

1. This Permit encompasses the following equipment and associated appurtenances:

    a. One (1) Duetz 113 hp diesel irrigation pump model F6L 912 (stationary RICE), located in HC&S sugarcane field 505-1, approximately four (4) miles away from the Puunene Sugar Mill;
    b. One (1) Deutz 99 hp diesel engine irrigation pump, model F5l 912, located in the HC&S sugarcane field 500-1, approximately five (5) miles from the Puunene Sugar Mill;
    c. Emergency diesel engines:

        i. One (1) 355 hp diesel engine generator, located at the Puunene Sugar Mill;
        ii. One (1) secondary 280 hp fire pump diesel engine, located at the Puunene Sugar Mill;
        iii. One (1) 107 hp diesel engine, located at the Kaheka Hydroelectric Plant, which is approximately 6.5 miles from the Puunene Sugar Mill; and
        iv. One (1) secondary 133 hp fire pump diesel engine located at the old Paia Sugar Mill (presently closed), which is approximately six (6) miles from the Puunene Sugar Mill;

    d. One (1) spare Deutz 99 hp diesel engine irrigation pump, model F5L 912, located at the Puunene Sugar Mill.

    (Auth.: HAR §11-60.1-3)

2. Within ninety (90) days after the issuance date of this permit, the permittee shall attach an identification (ID) tag or nameplate on the equipment listed above, which identifies the model number, serial or ID number, and manufacturer. The identification tag or nameplate shall be permanently attached to the equipment in a conspicuous location.

    (Auth.: HAR §11-60.1-5, HAR §11-60.1-90)

Section B. Applicable Federal Regulations

The Puunene Sugar Mill

1. 40 CFR Part 63, National Emission Standards for Hazardous Air Pollutants for Source Categories, Subpart A – General Provisions;
2. 40 CFR Part 63, National Emission Standards for Hazardous Air Pollutants for Source Categories, Subpart ZZZZ – National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines (RICE);

    (Auth.: HAR §11-60.1-3, §11-60.1-90, §11-60.1-161; 40 CFR §60.1, §60.40; § 63.1; §63.6590)[1]

3. The permittee shall comply with all applicable provisions of these standards, including all emission limits, notification, testing, monitoring, and reporting requirements by May 3, 2013.

   (Auth.: HAR §11-60.1-3, §11-60.1-90, §11-60.1-161)

Section C. Emission and Operational Limits, By May 3, 2013

1. Emission Limit

   The Deutz 113 hp diesel engine irrigation pump, a non-emergency non-black start stationary compression ignition (CI) stationary reciprocating internal combustion engine (RICE) greater than 100 horse power (hp) and less than 300 hp, shall limit the concentration of carbon monoxide (CO) in the stationary RICE exhaust to 230 parts per million volume dry (ppmvd) or less at fifteen (15) percent oxygen (O_2).

   (Auth.: HAR §11-60.1-3, §11-60.1-5, §11-60.1-36, §11-60.1-90; 40 CFR §60.6602)

2. For Deutz 113 hp diesel engine irrigation pump, the permittee shall minimize the diesel engine's time spent idling during startup and shall minimize the engine's startup time to a period needed for appropriate safe loading of the engine, not to exceed thirty (30) minutes, after which time the emission standards applicable to all times, other than startup, in this Section C.1 applies.

   (Auth.: HAR §11-60.1-3, §11-60.1-5, §11-60.1-36, §11-60.1-90; 40 CFR §63.6625)

3. The Deutz 99 hp diesel engine irrigation pump, model F5l 912, located in the HC&S sugarcane field 500-1, approximately five (5) miles from the Puunene Sugar Mill shall:

   a. Change oil and oil filter every 1,000 hours of operation or annually, whichever comes first;
   b. Inspect the air cleaner every 1,000 hours of operation or annually, whichever comes first; and
   c. Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary.

   (Auth.: HAR §11-60.1-3, §11-60.1-5, §11-60.1-36, §11-60.1-90; 40 CFR §60.6602)

4. The Duetz 99 hp diesel engine irrigation pump has the option of utilizing an oil analysis program in order to extend the specified oil change requirements listed above. The oil analysis shall be performed at the same frequency specified for changing the oil in C.2 above. The analysis program shall analyze at a minimum analyze the following three (3) parameters:

   a. Total Base Number is less than thirty (30) percent of the Total Base Number of the oil when new;

b. Viscosity of the oil has changed by more than twenty (20) percent from the viscosity of the oil when new; or
c. Percent water content (by volume) is greater than 0.5.

i. If all of these limits are not exceeded, the permittee is not required to change the oil;
ii. If any of these limits are exceeded, the permittee shall change the oil within two (2) days of receiving the results of the analysis;
iii. If the engine is not in operation when the results of the analysis are received, the permittee shall change the oil within two (2) or before commencing operation, whichever is later;
vi. The permittee shall keep records of the:

(1) Parameters that are analyzed as part of the program;
(2) Results of the analysis; and
(3) Oil changes for the engine.

vii. The analysis program must be a part of the maintenance plan for the engine.

(Auth.: HAR §11-60.1-3, §11-60.1-5, §11-60.1-36, §11-60.1-90; 40 CFR §63.6625)

5. The emergency diesel engines and the diesel engine generator as listed in A.1.c above and the spare diesel engine (as listed in A.1.d above) shall:

a. Change oil and oil filter every 500 hours of operation or annually, whichever comes first;
b. Inspect the air cleaner every 1,000 hours of operation or annually, whichever comes first; and
c. Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary.

(Auth.: HAR §11-60.1-3, §11-60.1-5, §11-60.1-36, §11-60.1-90; 40 CFR §60.6602)

6. Requirements for emergency stationary RICE. If you do not operate the engine according to the requirements in paragraphs a through c below, the engine will not be considered an emergency engine and will need to meet all requirements for non-emergency engines.

a. There is no time limit on the use of emergency stationary RICE in emergency situations.
b. The permittee shall operate the emergency stationary RICE for the purpose of maintenance checks and readiness testing, provided that the tests are recommended by Federal, State or local government, the manufacturer, the vendor, or the insurance company associated with the engine. Maintenance checks and readiness testing of such units is limited to 100 hours per year. The permittee may petition the Administrator of U.S. EPA, Region 9, for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if permittee

maintains records indicating that Federal, State, or local standards require maintenance and testing of emergency RICE beyond 100 hours per year.

c. The permittee shall operate the emergency stationary RICE up to fifty (50) hours per year in non-emergency situations, but those fifty (50) hours are counted towards the one hundred (100) hours per year provided for maintenance

(Auth.: HAR §11-60.1-3, §11-60.1-5, §11-60.1-36, §11-60.1-90; 40 CFR §60.6640)

7. Fuel

The diesel engines and diesel engine generators shall be fired only on fuel oil no. 2 containing no more than 0.5% sulfur content by weight.

(Auth.: HAR §11-60.1-3, §11-60.1-5, §11-60.1-36, §11-60.1-90)

8. Visible Emissions

The diesel engines and diesel engine generators shall not exhibit visible emissions of twenty (20) percent or greater for any six (6) minute averaging period, except as follows: during start-up, shutdown, or equipment breakdown, Stack 2 may exhibit visible emissions greater than twenty (20) but not exceeding 60 percent opacity for a period aggregating not more than six (6) minutes in any sixty (60) minute period.

(Auth.: HAR §11-60.1-3, §11-60.1-5, §11-60.1-36, §11-60.1-90; 40 CFR §63.7)

9. Alternate Operating Scenario

a. The permittee may replace the diesel engine or diesel engine generator with a temporary replacement unit if any repair reasonably warrants the removal of the diesel engine or diesel engine generator from its site (for example, equipment failure, engine overhaul, or any major equipment problems requiring maintenance for efficient operation) and the following provisions are adhered to:

   i. Written notification and approval in accordance with Special Condition No. E.7.a;
   ii. The temporary replacement unit is similar in size with equal or lesser emissions;
   iii. The temporary replacement unit complies with all applicable conditions including all air pollution control equipment requirements, operating restrictions, and emission limits;
   iv. The original diesel engine or diesel engine generator shall be repaired and returned to service at the same location in a timely manner; and
   v. Prior to the removal and return information is submitted as required by this Attachment, Special Condition No. E.7.b.

b. The Department of Health may require an ambient air quality assessment of the temporary unit, and/or provide a conditional approval to impose additional monitoring,

testing, recordkeeping, and reporting requirements to ensure the temporary unit is in compliance with the applicable requirements of the permitted unit being temporarily replaced.

c. Records shall be maintained in accordance with Special Condition No. D.9; and
d. The terms and conditions under each operating scenario shall meet all applicable requirements, including special conditions of this permit.

(Auth.: HAR §11-60.1-3, §11-60.1-5, §11-60.1-90)

Section D. Monitoring and Recordkeeping Requirements, By May 3, 2013

1. The permittee shall obtain from the fuel oil supplier fuel delivery receipts and a certificate of analysis of the fuel delivered. The fuel delivery receipts shall be maintained, showing the supplier, fuel type, date of delivery, and amount, in gallons, of the fuel delivered to the facility. The certificate analysis shall identify the percent sulfur by weight. The sulfur content of the fuel to be fired in the diesel engines shall be tested in accordance with the most current American Society for Testing Materials (ASTM) methods.

   (Auth.: HAR §11-60.1-3, §11-60.1-5, §11-60.1-11; §11-60.1-90)

2. Fuel delivery records and certificates of analysis, or copies thereof, shall be maintained at the Puunene Mill and made available to the Department of Health upon request.

   (Auth.: HAR §11-60.1-3, §11-60.1-5, §11-60.1-90; 40 CFR §60.17)

3. The permittee shall, at its own expense, install, operate, and maintain a non-resetting hour meter on every emergency diesel engine and the diesel engine generator listed in Section A.1.c of this Attachment IIB, for the permanent recording of its operating hours. The non-resetting meter shall not allow the manual resetting or other manual adjustments of the meter readings. The installation of any new non-resetting meter or meter replacement of any existing non-resetting meters shall be designed to accommodate a minimum of five (5) years of equipment operation, considering any operational limitations, before the meter returns to a zero reading. The following information shall be recorded on the operating hours of the emergency diesel engines and diesel engine generator:

   a. Date of the meter readings;
   b. Beginning meter readings for each month;
   c. Total operating hours for each month; and
   d. Total spec used oil consumption on a rolling twelve-month (12-month) basis.

   (Auth.: HAR §11-60.1-3, §11-60.1-11, §11-60.1-90; 40 CFR §63.6625(f))

4. Except for monitor malfunctions, associated repairs, required performance evaluations, and required quality assurance or control activities, the permittee shall monitor continuously at

all times that the Duetz 113 hp diesel irrigation pump and the Duetz 99 hp diesel engine irrigation pump are operating. A monitoring malfunction is any sudden, infrequent, not reasonably preventable failure of the monitoring to provide valid data. Monitoring failures that are caused in part by poor maintenance or careless operation are not malfunctions.

(Auth.: HAR §11-60.1-3, §11-60.1-5, §11-60.1-90; 40 CFR §63.6635)

5. The pemittee shall not use data recorded during monitoring malfunctions, associated repairs, and required quality assurance or control activities in data averages and calculations used to report emission or operating levels. The permittee shall, however, use all the valid data collected during all other periods.

   (Auth.: HAR §11-60.1-3, §11-60.1-5, §11-60.1-90; 40 CFR §60.6635)

6. Inspection, Maintenance, and Repair Log

   The permittee shall maintain records on inspections, maintenance, and any repair work conducted on the diesel engines and the diesel engine generators. At a minimum, these records shall include:

   a. The date of the inspection;
   b. Name and title of the inspector;
   c. A short description of the action and/or any such repair work; and
   d. A description of the part(s) inspected or repaired.

   (Auth.: HAR §11-60.1-3, §11-60.1-5, §11-60.1-90)

7. Visible Emissions (VE)

   a. Except when annual VE observations are conducted, the permittee shall conduct **monthly** (*calendar month*) VE observations for each equipment subject to opacity limits in accordance with Method 9. For the monthly observation for each equipment, two (2) consecutive six (6) minute observations shall be taken at fifteen (15) second intervals. Records shall be completed and maintained in accordance with the *Visible Emissions Form Requirements*.
   b. The permittee shall conduct **annually** (*calendar year*) VE observations for each equipment subject to opacity limits by a certified reader in accordance with Method 9. For the annual observation for each equipment, two (2) consecutive six (6) minute observations shall be taken at fifteen (15) second intervals. Records shall be completed and maintained in accordance with the *Visible Emissions Form Requirements*.
   c. Upon written request and justification by the permittee, the DOH may waive the requirement for a specific annual VE observation. The waiver request is to be submitted prior to the required annual VE observation and must include documentation justifying such action. Documentation should include, but is not limited to, the results of the prior VE observations indicating compliance by a wide margin, documentation of

continuing compliance, and further that operations of the source have not changed since the previous annual VE observation.

(Auth.: HAR §11-60.1-3, §11-60.1-5, §11-60.1-90)

8. Records

All records, or copies thereof, including support information, shall be maintained for **at least five (5) years** following the date of the monitoring sample, measurement, test, report, or application. Support information includes all maintenance, inspection, and repair records, and copies of all reports required by this permit. These records shall be true, accurate, and maintained in a permanent form suitable for inspection and made available to the Department of Health or their representative upon request.

(Auth.: HAR §11-60.1-3, §11-60.1-11, §11-60.1-90; 40 CFR §63.6660)

9. Alternate Operating Scenario

The permittee shall contemporaneously with making a change from one operating scenario to another, record in a log at the permitted facility, the scenario under which it is operating.

(Auth.: HAR 11-60.1-3, §11-60.1-5, §11-60.1-90)

Section E. Notification and Reporting Requirements, By May 3, 2013

1. Notification and reporting pertaining to the following events shall be done in accordance with Attachment I, Standard Condition Nos. 14, 16, 17, and 24, respectively:

   a. *Anticipated date of initial startup, actual date of construction commencement, and actual date of startup;*
   b. *Intent to shut down air pollution control equipment for necessary scheduled maintenance;*
   c. *Emissions of air pollutants in violation of HAR, Chapter 11-60.1 or this permit (excluding technology-based emission exceedances due to emergencies); and*
   d. *Permanent discontinuance of construction, modification, relocation, or operation of the facility, or any petroleum storage tank, covered by this permit.*

   (Auth.: HAR §11-60.1-8, §11-60.1-15, §11-60.1-16, §11-60.1-90; SIP §11-60-10, §11-60-16)[2]

2. The permittee shall report each instance in which the emissions did not meet the emission limit in C.1. above. These instances are deviations from the emission limitations in this permit. These deviations shall be reported according to the requirements in no. 5 below. If the catalyst is changed, the permittee shall reestablish the values of the operating parameters measured during the initial performance test. When the values of your operating parameters are re-established, the permittee shall also conduct a performance test to demonstrate compliance with the required emission limitation given in C.1.

For new, reconstructed, and rebuilt stationary RICE, deviations from the emissions or operating limitations that occur during the first 200 hours of operation from engine startup, or engine burn-in period, are not violations. Rebuilt stationary RICE means a stationary diesel engine that has been rebuilt as that term is defined in 40 CFR 94.11(a) below:

Engine rebuilding means to overhaul an engine or to perform extensive service to the engine, or on a portion of the engine or the engine system. Perform extensive service means to disassemble the engine, or portion of the engine, or engine system, inspect and/or replace many of the parts and reassemble the engine or a portion of the engine or engine system, in such a manner that significantly increases the service life of the resultant engine,

(Auth.: HAR §11-60.1-3, §11-60.1-90; 40 CFR §63.6640)

3. The permittee shall submit a Notification of Intent to conduct a performance test at least sixty (60) days before the performance test is scheduled to begin as required in 40 CFR Part 63, §63.7(b)(1).

   (Auth.: HAR §11-60.1-3, §11-60.1-90; 40 CFR §63.6645)

4. Monitoring

   The permittee shall submit **semi-annually**, the attached Monitoring Report Form to the Department of Health:

   CHANGING OIL – Diesel Engines

   These reports shall be submitted **within sixty (60) days after** the end of each semi-annual calendar period (January 1 to June 30 and July 1 to December 31), and shall be signed and dated by a responsible official.

   (Auth.: HAR §11-60.1-3, §11-60.1-90)

5. Compliance Certification

   During the permit term, the permittee shall submit at least **annually** to the Department of Health and U.S. EPA, Region 9, the attached **Compliance Certification Form** pursuant to HAR, Subsection 11-60.1-86. The permittee shall indicate whether or not compliance is being met with each term or condition of this permit. The compliance certification shall include at a minimum the following information:

   a. The identification of each term or condition of the permit that is the basis of the certification;
   b. The compliance status;
   c. Whether compliance was continuous or intermittent;
   d. The methods used for determining the compliance status of the source currently and over the reporting period;

e. Any additional information indicating the source's compliance status with any applicable enhanced monitoring and compliance certification including the requirements of Section 114(a)(3) of the Clean Air Act or any applicable monitoring and analysis provisions of Section 504(b) of the Clean Air Act;
f. Brief description of any deviations including identifying as possible exceptions to compliance any periods during which compliance is required and in which the excursion or exceedances as defined in 40 CFR 64 occurred; and
g. Any additional information as required by the Department of Health including information to determine compliance.

The compliance certification shall be submitted within sixty (60) days after the end of each calendar year, and shall be signed and dated by a responsible official.

Upon written request of the permittee, the deadline for submitting the compliance certification may be extended, if the Department of Health determines that reasonable justification exists for the extension.

(Auth.: HAR §11-60.1-4, §11-60.1-86, §11-60.1-90)

6. Annual Emissions

a. As required by *Attachment IV: Annual Emissions Reporting Requirements* and in conjunction with the requirements of *Attachment III: Annual Fee Requirements*, the permittee shall report **annually** the total tons/yr emitted of each regulated air pollutant, including hazardous air pollutants. The reporting of annual emissions is due **within sixty (60) days following the end of each calendar year.** The completion and submittal of *Annual Emissions Report Form: Diesel Engine*, shall be used in reporting fuel usage.
b. Upon the written request of the permittee, the deadline for reporting of annual emissions may be extended, if the Department of Health determines that reasonable justification exists for the extension.

(Auth.: HAR §11-60.1-3, §11-60.1-5, §11-60.1-11, §11-60.1-90)

7. Alternate Operating Scenario

a. The permittee shall submit a written request and receive prior written approval from the Department of Health before the exchange. The written request shall identify at a minimum the reasons for the replacement of the diesel engine or diesel engine generator from the site of operation, the anticipated date of replacement, replacement diesel engine or diesel engine generator's specifications, including manufacturer, model no. and serial no., replacement, and the estimated time period/dates for the temporary replacement, type and size of the temporary unit, emissions data, and stack parameters.
b. Prior to the removal and return of the diesel engine or diesel engine generator to service, the permittee shall submit to the Department of Health written documentation

on the removal and return dates and on the make, size, model and serial numbers for both the temporary replacement unit and the installed unit.

(HAR §11-60.1-3, §11-60.1-5, §11-60.1-90)

Section F. Testing Requirements

Duetz 113 hp diesel irrigation pump

1. The initial source performance test shall be done on normal operating conditions of the Deutz 113 hp diesel irrigation pump no later than within one hundred eighty (180) days of the compliance date, which is May 3, 2013, as required in 40 CFR Part 63, §63.6612.

   (Auth.: HAR §11-60.1-3, §11-60.1-5, §11-60.1-90, 40 CFR §63.661Z)

2. Operations during periods of startup, shutdown, and malfunction shall not constitute representative conditions for the purpose of a performance test, nor shall emissions in excess of the level of the relevant standard during periods of startup, shutdown, and malfunction be considered a violation of the relevant standard unless otherwise specified in the relevant standard or a determination of noncompliance is made under §63.6(e).

   (HAR §11-60.1-3, §11-60.1-5, §11-60.1-90, 40 CFR §63.7)

3. The permittee shall use the equation below to determine compliance with the percent reduction requirement:

   $[(C_i – C_o) / C_i] \times 100 = R$

   Where:
   C_i = concentration of carbon monoxide (CO) at the control device inlet;
   C_o = concentration of carbon monoxide (CO) at the control device outlet; and
   R = percent reduction of CO emissions.

   (Auth.: HAR §11-60.1-3, §11-60.1-5, §11-60.1-90, 40 CFR §63.6620)

4. The permittee shall normalize the carbon monoxide (CO) concentrations at the inlet and outlet of the control device to a dry basis and to fifteen (15) percent oxygen, or an equivalent percent carbon dioxide (CO_2). If pollutant concentrations are to be corrected to fifteen (15) percent oxygen and CO_2 concentration is measured in lieu of oxygen concentration measurement, a CO_2 correction factor is needed. Calculate the CO_2 correction factor as described below:

   a. Calculate the fuel-specific F_o value for the fuel burned during the test using values obtained from Method 19, section 5.2, and the following equation:

      $F_o = 0.209 F_d / F_c$

Where:
F_o = Fuel factor based on the ratio of oxygen volume to the ultimate CO_2 volume produced by the fuel at zero percent excess air;
0.209 = Fraction of air that is oxygen (percent / 100);
F_d = Ratio of the volume of dry effluent gas to the gross calorific value of the fuel from Method 19 (dscf / MMBtu); and
F_o = Ratio of the volume of CO_2 produced to the gross calorific value of the fuel from Method 19 (dscf / MMBtu)

b. Calculate the CO_2 correction factor for correcting measurement data to 15 percent oxygen, as follows:

$$X_{CO2} = 5.9 / F_o$$

Where:
X_{CO2} = CO_2 correction factor (percent); and
5.9 = 20.9 percent O_2 – 15 percent O_2, the defined O_2 correction value (percent).

c. Calculate the nitrogen oxides ($NO_{X)}$ and sulfur dioxides (SO_2) gas concentrations adjusted to 15 percent O_2 using CO_2 as follows:

$$C_{adj} = C_d \times (X_{CO2} / \% CO_2)$$

Where:
% CO_2 = Measured CO_2 concentration measured, dry basis, percent.

(HAR §11-60.1-3, §11-60.1-5, §11-60.1-90, 40 CFR §63.6620)

5. If the Duetz 113 hp diesel engine irrigation pump complies with the emission limitation to reduce carbon monoxide and the permittee is not using an oxidation catalyst, the permittee shall petition the U.S. EPA, Region 9, Administrator for operating limitations to be established during the initial performance test and continuously monitored thereafter; or for approval of no operating limitations. The permittee shall not conduct the initial performance until the petition has been approved by the U.S. EPA, Region 9, Administrator.

   (HAR §11-60.1-3, §11-60.1-5, §11-60.1-90, 40 CFR §63.6620)

6. If the permittee petitions the U.S. EPA, Region 9, Administrator for approval of operating limitations, the petition shall include the information described below in paragraphs a-e:

   a. Identify the specific parameters of the Duetz 113 hp diesel engine irrigation pump that are proposed as operating limitations;
   b. Discuss the relationships between these parameters and hazardous air pollutant (HAP) emissions, identifying how HAP emissions change with changes in these parameters, and how limitations on these parameters shall serve to limit HAP emissions;
   c. Discuss how upper and/or lower values for these parameters shall be established in the operating limitations of these parameters;

d. Discuss and identify the methods that shall be used to measure the instruments which will monitor the parameters, and the relative accuracy and precision of these methods and instruments; and
e. Identify the frequency and methods for recalibrating the instruments used for monitoring the parameters.

(Auth.: HAR §11-60.1-3, §11-60.1-5, §11-60.1-90, 40 CFR §63.6620)

7. If the permittee petitions the U.S. EPA, Administrator of Region 9, for approval of no operating limitations, the petition must include the following information:

    a. Identify the parameters associated with the Duetz 113 hp diesel irrigation pump and any emission control device which could change intentionally, for example, operator adjustment, or automatic controller adjustment, or unintentionally, for example, wear and tear, or error, on a routine basis or over time;
    b. Discuss the relationship, if any, between changes in the parameters and changes in HAP emissions;
    c. For parameters which could change in such a way as to increase HAP emissions, discuss whether establishing limitations on the parameters would serve to limit HAP emissions;
    d. For parameters which could change in such a way as to increase HAP emissions, discuss how to establish upper and/or lower values for the parameters which would establish limits on the parameters in operating limitations;
    e. For the parameters:

        i. Identify the methods to measure them;
        ii. List the corresponding instruments to monitor them;
        iii. State the relative accuracy and precision of the methods and instruments;
        iv. Identify the frequency and methods of recalibrating the instruments used to monitor the parameters; and
        v. State the reason(s) why it is infeasible or unreasonable to declare the parameters as operating limitations.

    (Auth.: HAR §11-60.1-3, §11-60.1-5, §11-60.1-90, 40 CFR §63.6620)

8. The Duetz 113 hp diesel irrigation pump percent load during a performance test shall be determined by documenting the calculations, assumptions, and measurement devises used to measure or estimate the percent load in a specific application. A written report of the average percent load determination shall be included in the notification of compliance status. The following information shall be included in the written report:

    a. The engine model number;
    b. The engine manufacturer;
    c. The year the engine was purchased;
    d. The manufacturer's site-rated brake horsepower;
    e. The ambient temperature;
    f. The pressure;
    g. The humidity during the performance test; and

h. All other assumptions that were made to estimate or calculate percent load during the performance test shall be clearly explained; and if measurement devices such as flow meters, kilowatt meters, beta analyzers, stain gauges, or other equipment are used, the model number of the measurement device, and an estimate of its accuracy in percentage of the true value shall be provided.

(Auth.: HAR §11-60.1-3, §11-60.1-5, §11-60.1-90, 40 CFR §63.6620)

9. Unless otherwise specified in 40 CFR Part 63 Subpart ZZZZ, each performance test shall consist of three (3) separate runs using the applicable test method. Each run shall be conducted for at least one (1) hour. For the purpose of determining compliance with an applicable standard, the arithmetic mean of the results from the three (3) runs shall apply. Upon receiving approval from the Administrator, results of a test run may be replaced with results of an additional test run In the event that:

   a. A sample is accidentally lost after the test team leaves the site;
   b. Conditions occur in which one of the three (3) runs must be discontinued because of an unexpected or forced shutdown;
   c. Extreme weather conditions; or
   d. Other circumstances, beyond the owner or operator's control.

   The request shall specify exactly which EPA approved test will be used. Upon receiving approval from the Administrator, a new test date shall be scheduled. If the permittee is requesting an alternate test method, the notification should be submitted sixty (60) days before the new performance test date is scheduled.

   If the Administrator finds reasonable grounds to dispute the results obtained by an alternative test method for the purposes of demonstrating compliance with the relevant standard, the Administrator may require the use of a test method specified in a relevant standard.

   (Auth.: HAR §11-60.1-3, §11-60.1-5, §11-60.1-11, §11-60.1-90, 40 CFR §63.7, §63.6620; SIP §11-60-15)[1,2]

10. Select the sampling port location and the number of transverse points.

    Use Method 1 or 1A of 40 CFR Part 60, Appendix A §63.7(d)(1)(i). If using a control device, the sampling site must be located at the outlet of the control device.

    (Auth.: HAR §11-60.1-11, §11-60.1-90, 40 CFR §63.7, §63.12; SIP §11-60-15) [1,2]

11. Determine the oxygen (O_2) concentration of the Deutz 113 hp diesel engine exhaust at the sampling port location.

Use Method 3 or 3A or 3B of 40 CFR Part 60, Appendix A, or ASTM Method D6522-00 (2005). Measurement to determine O_2 concentration must be made at the same time and location as the measurements for carbon monoxide (CO) concentration.

(Auth.: HAR §11-60.1-3, §11-60.1-5, §11-60.1-90; 40 CFR §63.6620 Table 4)

12. Measure the moisture content of the Deutz 113 hp diesel engine exhaust at the sampling port location.

    Use Method 4 of 40 CFR Part 60, Appendix A, or Test Method 320 of CFR Part 63, Appendix A, or ASTM D 6348-03. Measurements to determine moisture content must be made at the same time and location as the measurements for carbon monoxide (CO) concentration.

    (Auth.: HAR §11-60.1-3, §11-60.1-5, §11-60.1-90; 40 CFR §63.6620 Table 4)

13. Measure the CO at the exhaust of the Duetz 113 hp diesel engine.

    40 CFR Part 60, Method 10, Appendix A, ASTM Method D6522-00 (2005), Method 320 of CFR Part 63, Appendix A, or ASTM D 6348-03. CO concentration must be at 15 percent O_2, dry basis. Results of this test consists of the average of the three (3) one-hour (1-hour) longer runs.

    The permittee may also use Methods 3A and 10 as options to ASTM-6522-00 (2005)

    (Auth.: HAR §11-60.1-3, §11-60.1-5, §11-60.1-90; 40 CFR §63.6620 Table 4)

ATTACHMENT II - INSIG: SPECIAL CONDITIONS - INSIGNIFICANT ACTIVITIES
COVERED SOURCE PERMIT NO. 0054-01-C

Issuance Date: **Expiration Date:**

In addition to the Standard Conditions of the Covered Source Permit, the following Special Conditions shall apply to the permitted facility:

Section A. Equipment Description

This attachment encompasses insignificant activities listed in HAR, §11-60.1-82(f) and (g) for which provisions of this permit and HAR, Subchapter 2, General Prohibitions apply.

(Auth.: HAR §11-60.1-3)

Section B. Operational Limitations

1. The permittee shall take measures to operate applicable insignificant activities in accordance with the provisions of HAR, Subchapter 2 for visible emissions, fugitive dust, incineration, process industries, sulfur oxides from fuel combustion, storage of volatile organic compounds, volatile organic compound water separation, pump and compressor requirements, and waste gas disposal.

   (Auth.: HAR §11-60.1-3, §11-60.1-82, §11-60.1-90)

2. The Department of Health may at any time require the permittee to further abate emissions if an inspection indicates poor or insufficient controls.

   (Auth.: HAR §11-60.1-3, §11-60.1-5, §11-60.1-82, §11-60.1-90)

Section C. Monitoring and Recordkeeping Requirements

1. The Department of Health reserves the right to require monitoring, recordkeeping, or testing of any insignificant activity to determine compliance with the applicable requirements.

   (Auth.: HAR §11-60.1-3, §11-60.1-90)

2. All records shall be maintained for at least five (5) years from the date of any required monitoring, recordkeeping, testing, or reporting. These records shall be in a permanent form suitable for inspection and made available to the Department of Health or their authorized representative upon request.

   (Auth.: HAR §11-60.1-3, §11-60.1-11, §11-60.1-90)

Section D. Notification and Reporting

Compliance Certification

During the permit term, the permittee shall submit at least **annually** to the Department of Health and U.S. EPA, Region 9, Compliance Certification Form, pursuant to HAR, Subsection 11-60.1-86. The

permittee shall indicate whether or not compliance is being met with each term or condition of this permit. The compliance certification shall include at a minimum the following information:

1. The identification of each term or condition of the permit that is the basis of the certification;
2. The compliance status;
3. Whether compliance was continuous or intermittent;
4. The methods used for determining the compliance status of the source currently and over the reporting period;
5. Any additional information indicating the source's compliance status with any applicable enhanced monitoring and compliance certification including the requirements of Section 114(a)(3) of the Clean Air Act or any applicable monitoring and analysis provisions of Section 504(b) of the Clean Air Act;
6. Brief description of any deviations including identifying as possible exceptions to compliance any periods during which compliance is required and in which the excursion or exceedences as defined in 40 CFR 64 occurred; and
7. Any additional information as required by the Department of Health including information to determine compliance.

In lieu of addressing each emission unit as specified in Attachment V, the permittee may address insignificant activities as a single unit provided compliance is met with all applicable requirements. If compliance is not totally attained, the permittee shall identify the specific insignificant activity and provide the details associated with the noncompliance.

The compliance certification shall be submitted **within sixty (60) days after** the end of each calendar year, and shall be signed and dated by a responsible official or authorized representative.

Upon written request of the permittee, the deadline for submitting the compliance certification may be extended, if the Department of Health determines that reasonable justification exists for the extension.

(Auth.: HAR §11-60.1-4, §11-60.1-86, §11-60.1-90

Section E. Agency Notification

Any document (including reports) required to be submitted by this Covered Source Permit shall be done in accordance with Attachment 1, Standard Condition No. 29.

(Auth.: HAR §11-60.1-4, §11-60.1-90)

PROPOSED

ATTACHMENT III: ANNUAL EMISSIONS REPORTING REQUIREMENTS
COVERED SOURCE PERMIT NO 0054-01-C

Issuance Date: **Expiration Date:**

In accordance with the Hawaii Administrative Rules, Title 11, Chapter 60.1, Air Pollution Control, the permittee shall report to the State of Hawaii Department of Health the nature and amounts of emissions.

1. Complete the attached Annual/Monitoring Emissions Report Forms for:
   Boilers and Sugar Dryer

2. The reporting period shall be from January 1 to December 31 of each year. All reports shall be submitted to the State of Hawaii Department of Health **within sixty (60) days after** *the end of each calendar year* and shall be mailed to the following address:

   Clean Air Branch
   Environmental Management Division
   State of Hawaii Department of Health
   919 Ala Moana Boulevard, Room 203
   Honolulu, HI 96814

3. The permittee shall retain the information submitted, including all emission calculations. These records shall be in a permanent form suitable for inspection, retained for a minimum of five (5) years, and made available to the State of Hawaii Department of Health upon request.

4. Any information submitted to the State of Hawaii Department of Health without a request for confidentially shall be considered public record.

5. In accordance with HAR, Section 11-60.1-14, the permittee may request confidential treatment of specific information by submitting a written request to the Director of Health and clearly identifying the specific information that is to be accorded confidential treatment.

PROPOSED

ATTACHMENT IV: ANNUAL FEE REQUIREMENTS
COVERED SOURCE PERMIT NO. 0054-01-C

Issuance Date: **Expiration Date:**

In accordance with the Hawaii Administrative Rules, Title 11, Chapter 60.1, Air Pollution Control, the permittee is subject to the payment of annual fees.

1. Annual fees shall be paid in full:

   a. **Within sixty (60) days after** *the end of each calendar year*, and
   b. **Within thirty (30) days after** *the permanent discontinuance of the covered source.*

2. The annual fees shall be determined and submitted in accordance with Hawaii Administrative Rules, Chapter 11-60.1 Subchapter 6.

3. The annual emissions data for which the annual fees are based shall accompany the submittal of any annual fees and submitted on forms furnished by the State of Hawaii Department of Health.

4. The annual fees and the emission data shall be mailed to:

Clean Air Branch
Environmental Management Division
State Department of Health
919 Ala Moana Boulevard, Room 203
Honolulu, HI 96814

PROPOSED

COMPLIANCE CERTIFICATION FORM
COVERED SOURCE PERMIT NO. 0054-01-C
PAGE 1 OF ___

Issuance Date: **Expiration Date:**

In accordance with the Hawaii Administrative Rules, Title 11, Chapter 60.1, Air Pollution Control, the permittee shall report to the Department of Health the following certification at least annually, or more frequently as requested by the Department.

(Make Copies of the Compliance Certification Form for Future Use)

For Period: _____ Date: _____

Company/Facility Name: _____

Responsible Official (Print): _____

Title: _____

Responsible Official (Signature): _____

I certify that I have knowledge of the facts herein set forth, that the same are true, accurate and complete to the best of my knowledge and belief, and that all information not identified by me as confidential in nature shall be treated by Department of Health as public record. I further state that I will assume responsibility for the construction, modification, or operation of the source in accordance with the Hawaii Administrative Rules, Title 11, Chapter 60.1, Air Pollution Control, and any permit issued thereof.

PROPOSED

COMPLIANCE CERTIFICATION FORM
COVERED SOURCE PERMIT NO. 0054-01-C
(CONTINUED, PAGE 2 OF ___)

Issuance Date: **Expiration Date:**

The purpose of this form is to evaluate whether or not the facility was in compliance with the permit terms and conditions during the covered period. If there were any deviations to the permit terms and conditions during the covered period, the deviation(s) shall be certified as *intermittent compliance* for the particular permit term(s) or condition(s). Deviations include failure to monitor, record, report, or collect the minimum data required by the permit to show compliance. In the absence of any deviation, the particular permit term(s) or condition(s) may be certified as *continuous compliance*.

Instructions:
Please certify Sections A, B, and C below for continuous or intermittent compliance. Sections A and B are to be certified as a group of permit conditions. Section C shall be certified individually for each operational and emissions limit condition as listed in the Special Conditions section of the permit (list all applicable equipment for each condition). Any deviations shall also be listed individually and described in Section D. The facility may substitute its own generated form in verbatim for Sections C and D.

A. Attachment I, Standard Conditions

Permit term/condition	Equipment	Compliance
All standard conditions	All Equipment listed in the permit	☐ Continuous ☐ Intermittent

B. Special Conditions - Monitoring, Recordkeeping, Reporting, Testing, and INSIG

Permit term/condition	Equipment	Compliance
All monitoring conditions	All Equipment listed in the permit	☐ Continuous ☐ Intermittent
Permit term/condition All recordkeeping conditions	Equipment All Equipment listed in the permit	Compliance ☐ Continuous ☐ Intermittent
Permit term/condition All reporting conditions	Equipment All Equipment listed in the permit	Compliance ☐ Continuous ☐ Intermittent
Permit term/condition All testing conditions	Equipment All Equipment listed in the permit	Compliance ☐ Continuous ☐ Intermittent
Permit term/condition All INSIG conditions	Equipment All Equipment listed in the permit	Compliance ☐ Continuous ☐ Intermittent

PROPOSED

COMPLIANCE CERTIFICATION FORM
COVERED SOURCE PERMIT NO. 0054-01-C
(CONTINUED, PAGE ____ OF ___)

Issuance Date: **Expiration Date:**

C. Special Conditions - Operational and Emissions Limitations

Each permit term/condition shall be identified in chronological order using attachment and section numbers (e.g., Attachment II, B.1, Attachment IIA, Special Condition No. B.1.f, etc.). Each equipment shall be identified using the description stated in Section A of the Special Conditions (e.g., unit no., model no., serial no., etc.). Check all methods (as required by permit) used to determine the compliance status of the respective permit term/condition.

Permit term/condition	Equipment	Method	Compliance
		☐ monitoring ☐ recordkeeping ☐ reporting ☐ testing ☐ none of the above	☐ Continuous ☐ Intermittent
		☐ monitoring ☐ recordkeeping ☐ reporting ☐ testing ☐ none of the above	☐ Continuous ☐ Intermittent
		☐ monitoring ☐ recordkeeping ☐ reporting ☐ testing ☐ none of the above	☐ Continuous ☐ Intermittent
		☐ monitoring ☐ recordkeeping ☐ reporting ☐ testing ☐ none of the above	☐ Continuous ☐ Intermittent
		☐ monitoring ☐ recordkeeping ☐ reporting ☐ testing ☐ none of the above	☐ Continuous ☐ Intermittent
		☐ monitoring ☐ recordkeeping ☐ reporting ☐ testing ☐ none of the above	☐ Continuous ☐ Intermittent
		☐ monitoring ☐ recordkeeping ☐ reporting ☐ testing ☐ none of the above	☐ Continuous ☐ Intermittent

(Make Additional Copies if Needed)

PROPOSED

COMPLIANCE CERTIFICATION FORM
COVERED SOURCE PERMIT NO. 0054-01-C
(CONTINUED, PAGE ___ OF ___)

Issuance Date: **Expiration Date:**

D. Deviations

Permit Term/ Condition	Equipment / Brief Summary of Deviation*	Deviation Period time (am/pm) & date (mo/day/yr)	Date of Written Deviation Report to DOH (mo/day/yr)
		Beginning: Ending:	
		Beginning: Ending:	
		Beginning: Ending:	
		Beginning: Ending:	
		Beginning: Ending:	
		Beginning: Ending:	
		Beginning: Ending:	

*Identify as possible exceptions to compliance any periods during which compliance is required and in which an excursion or exceedance as defined under 40 CFR 64 occurred.

(Make Additional Copies if Needed)

PROPOSED

ANNUAL EMISSIONS REPORT FORM - BOILERS
CSP NO. 0054-01-C

Issuance Date: **Expiration Date:**

In accordance with the Hawaii Administrative Rules, Title 11, Chapter 60.1, Air Pollution Control, the permittee shall report to the Department of Health the nature and amounts of emissions.

Fill out a separate form for <u>each</u> Boiler. **(Make copies for Future Use)**

For Period: _____ Date: _____
Facility Name: _____
Equipment Location: _____
Equipment Description: _____
Serial/ID No.: _____

I certify that I have knowledge of the facts herein set forth, that the same are true, accurate and complete to the best of my knowledge and belief, and that all information not identified by me as confidential in nature shall be treated by Department of Health as public record. I further state that I will assume responsibility for the construction, modification, or operation of the source in accordance with the Hawaii Administrative Rules, Title 11, Chapter 60.1, Air Pollution Control, and any permit issued thereof.

Responsible Official (Print): _____

Title: _____ Phone No. _____

Responsible Official (Signature): _____

Classification of Boiler by Heat Input (Check one): _____ Utility: > 100 MMBTU/hr

□ *Tangentially-fired* □ *Vertical-fired* □ *Other*

_____ Industrial: 10 MMBtu/hr to 100 MMBTU/hr _____ Commercial: 0.5×10^6 to 10×10^6 BTU/hr

Type of Fuel Fired	Fuel Usage (Gallons per Year) (Tons per year)	% Sulfur Content by weight	Identify Specific Conditions, Information, if applicable

Types of Fuel:
- Distillate Oil No. 2;
- Fuel Oil Reclaimed or
- Specification Used Oil;
- Bagasse in tons/yr;
- Coal in Tons per Year
- If Other, specify.

Type of Air Pollution Control	In Use? (yes or no)	Pollutant Controlled	Control Efficiency, % reduction
Multi-Cyclone Dust Collector			
Venturi Wet Scrubber			

PROPOSED

ANNUAL EMISSIONS REPORT FORM
DIESEL ENGINES AND DIESEL ENGINE GENERATORS
COVERED SOURCE PERMIT NO. 0054-01-C

Issuance Date: **Expiration Date:**

In accordance with the Hawaii Administrative Rules, Title 11, Chapter 60.1, Air Pollution Control, the permittee shall report to the Department of Health the following information semi-annually:

(Make copies for Future Use)

For Period: _____ Date: _____

Facility Name: _____

Equipment Location: _____

Equipment Description: _____

Equipment Capacity/Rating (specify units): _____
(Units such as Horsepower, kilowatt, tons/hour, etc.)

Serial/ID No.: _____

Type of Fuel: _____ Max % Sulfur by weight: _____

I certify that I have knowledge of the facts herein set forth, that the same are true, accurate and complete to the best of my knowledge and belief, and that all information not identified by me as confidential in nature shall be treated by Department of Health as public record.

Responsible Official (PRINT): _____

Title: _____ Phone Number: _____

Responsible Official (Signature): _____

Total Fuel Consumed: _____ gallons

PROPOSED

MONITORING REPORT FORM
VISIBLE EMISSIONS
CSP NO. 0054-01-C

Issuance Date: **Expiration Date:**

In accordance with the Hawaii Administrative Rules, Title 11, Chapter 60.1, Air Pollution Control, the permittee shall report to the Department of Health the following information semi-annually:

(Make copies for Future Use)

For Period: _____ Date: _____

Facility Name: _____

I certify that I have knowledge of the facts herein set forth, that the same are true, accurate and complete to the best of my knowledge and belief, and that all information not identified by me as confidential in nature shall be treated by Department of Health as public record. I further state that I will assume responsibility for the construction, modification, or operation of the source in accordance with the Hawaii Administrative Rules, Title 11, Chapter 60.1, Air Pollution Control, and any permit issued thereof.

Responsible Official (Print): _____

Title: _____ Phone No. _____

Responsible Official (Signature): _____

Visible Emissions:

Report the following on the lines provided below: All date(s) and six (6) minute average opacity reading(s) which the opacity limit was exceeded during the monthly observations; or if there were no exceedances during the monthly observations, then write “no exceedances” in the comment column.

EQUIPMENT	SERIAL/ID NO.	DATE	6 MIN. AVER. (%)	COMMENTS

PROPOSED

MONITORING REPORT FORM
FUEL OIL CONSUMPTION AND CERTIFICATION
CSP NO. 0054-01-C

Issuance Date **Expiration Date:**

In accordance with the Hawaii Administrative Rules, Title 11, Chapter 60.1, Air Pollution Control, the permittee shall report to the Department of Health the following information at least every six (6) months.

Fill out a separate form for <u>each</u> Boiler. **(Make copies for Future Use)**

For Period: _____ Date: _____
Facility Name: _____
Equipment Location: _____
Equipment Description: _____
Equipment Capacity/Rating (specify units): _____
(Units such as horsepower, kilowatts, tons/hour, etc.)
Serial/ID No.: _____
Fuel Oil No. 2 Maximum % Sulfur Content by Weight: _____% Date Rec:_____

I certify that I have knowledge of the facts herein set forth, that the same are true, accurate and complete to the best of my knowledge and belief, and that all information not identified by me as confidential in nature shall be treated by Department of Health as public record. I further state that I will assume responsibility for the construction, modification, or operation of the source in accordance with the Hawaii Administrative Rules, Title 11, Chapter 60.1, Air Pollution Control, and any permit issued thereof.

Responsible Official (Print): _____
Title: _____ Phone No. _____
Responsible Official (Signature): _____

MONTH	MONTHLY FUEL CONSUMPTION (gallons)				12-MO. ROLLING TOTAL		% SPEC USED OIL COMBUSTED (B/A) x 100%
	Fuel Oil No. 2	Other	Total Hours	Spec Used Oil	Total Fuel Oil (A)	Spec Used Oil (B)	
January							
February							
March							
April							
May							
June							
July							
August							
September							
October							
November							
December							
TOTAL							

PROPOSED

MONITORING REPORT FORM
SPECIFICATION USED OIL CERTIFICATION
CSP NO. 0054-01-C

Issuance Date: **Expiration Date:**

In accordance with the Hawaii Administrative Rules, Title 11, Chapter 60.1, Air Pollution Control, the permittee shall report to the Department of Health **semi-annually** the nature and amounts of emissions.

Fill out a separate form for <u>each</u> Boiler. **(Make copies for Future Use)**

For Period: _____ Date: _____

Facility Name: _____

Equipment Location: _____

Equipment Description: _____

Equipment Capacity/Rating (specify units): _____
(Units such as Horsepower, kilowatt, tons/hour, etc.)

Serial/ID No.: _____

I certify that I have knowledge of the facts herein set forth, that the same are true, accurate and complete to the best of my knowledge and belief, and that all information not identified by me as confidential in nature shall be treated by Department of Health as public record. I further state that I will assume responsibility for the construction, modification, or operation of the source in accordance with the Hawaii Administrative Rules, Title 11, Chapter 60.1, Air Pollution Control, and any permit issued thereof.

Responsible Official (Print): _____

Title: _____ Phone No. _____

Responsible Official (Signature): _____

Fuel Usage (Gallons per year): In-house used oil: _____
Commercial used oil: _____

Number of used oil analyses received/performed for this report period: _____

Did any of the used oil analyses indicate exceedances of the permitted limits: □ YES □ NO

If Yes, indicate the number of exceedances: _____

Report the date(s) _____ and number of gallons burned over 2 million gallons _____

Indicate the average of the Used Oil analyses results received/performed:

Constituent/ Property	**Average Results**	
Arsenic		ppm by weight
Cadmium		ppm by weight
Chromium		ppm by weight
Lead		ppm by weight
Total Halogens		ppm by weight
Sulfur		
In-house used oil		% by weight
Commercial used oil		% by weight
Flash Point		^{o} F
Polychlorinated Biphenyls (PCB)		ppm by weight

PROPOSED

MONITORING REPORT FORM
CHANGING OIL: DIESEL ENGINES AND DIESEL ENGINE GENERATORS
COVERED SOURCE PERMIT NO. 0054-01-C

Issuance Date: **Expiration Date:**

In accordance with the Hawaii Administrative Rules, Title 11, Chapter 60.1, Air Pollution Control, the permittee shall report to the Department of Health the nature and amounts of emissions, semi-annually.

(Make Copies for Future Use)

For Period: _____ Date: _____
Facility Name: _____
Equipment Location: _____
Equipment Description: _____
Equipment Capacity/Rating (specify units):_____
(Units such as Horsepower, kilowatt, tons/hour, etc.)
Serial/ID No.: _____

I certify that I have knowledge of the facts herein set forth, that the same are true, accurate, and complete to the best of my knowledge and belief, and that all information not identified by me as confidential in nature shall be treated by the Department of Health as public record.

Responsible Official (PRINT): _____

Title: _____ Phone Number: _____

Responsible Official (Signature): _____

Diesel Engine

MONTH	TOTAL OPERATING HOURS	HOURS OF OPERATION -MONTH CHANGING OIL	NOTES
January			
February			
March			
May			
June			
July			
August			
September			
October			
November			
December			
TOTAL			

Diesel Engine Fuel Certification

Type of Fuel Fired	Maximum % Sulfur Content by Weight

- If not already on file at the Department of Health, provide the supplier's fuel specification sheet for the type of fuel indicated in the above table. The fuel specification sheet shall indicate the % sulfur content by weight.

PROPOSED

MONITORING/ANNUAL EMISSIONS REPORT FORM
SUGAR DRYER PRODUCTION
CSP NO. 0054-01-C
(PAGE 1 OF 2)

Issuance Date: **Expiration Date:**

In accordance with the Hawaii Administrative Rules, Title 11, Chapter 60.1, Air Pollution Control, the permittee shall report to the Department of Health the following information **semi-annually**:

(Make copies for Future Use)

For Period: _____ to _____ Date: _____

Facility Name: _____

Equipment Location: _____

Equipment Description: _____

Serial/ID No.: _____

I certify that I have knowledge of the facts herein set forth, that the same are true, accurate and complete to the best of my knowledge and belief, and that all information not identified by me as confidential in nature shall be treated by Department of Health as public record. I further state that I will assume responsibility for the construction, modification, or operation of the source in accordance with the Hawaii Administrative Rules, Title 11, Chapter 60.1, Air Pollution Control, and any permit issued thereof.

Responsible Official (Print): _____

Title: _____ Phone No. _____

Responsible Official (Signature): _____

MONTH	SUGAR DRYER PRODUCTION (TONS)	ROLLING 12-MONTH TOTAL (TONS)	NOTES
January			
February			
March			
April			
May			
June			
July			
August			
September			
October			
November			
December			
TOTAL			

PROPOSED

MONITORING/ANNUAL EMISSIONS REPORT FORM
SUGAR DRYER PRODUCTION
CSP NO. 0054-01-C
(PAGE 2 OF 2)

Issuance Date: **Expiration Date:**

In accordance with the Hawaii Administrative Rules, Title 11, Chapter 60.1, Air Pollution Control, the permittee shall report to the Department of Health the following information **semi-annually**:

(Make copies for Future Use)

FOR THE REPORTING PERIOD IDENTIFY:

All incidences the pressure drop across the scrubber was less than 8 inches of water:

DATE	REASON	CORRECTIVE ACTION

All incidences the sugar drier exceeded 75,000 tons during any rolling twelve (12) month period:

DATE and AMOUNT OVER 75,000 tons	REASON	CORRECTIVE ACTION

PROPOSED

MONITORING/ANNUAL EMISSIONS REPORT FORM
BOILERS 1 and 2 BAGASSE
CSP NO. 0054-01-C

Issuance Date: **Expiration Date:**

In accordance with the Hawaii Administrative Rules, Title 11, Chapter 60.1, Air Pollution Control, the permittee shall report to the Department of Health the following information **semi-annually**:

(Make copies for Future Use)

For Period: _____ to _____ Date: _____

Facility Name: _____

Equipment Location: _____

Equipment Description: _____

Serial/ID No.: _____

I certify that I have knowledge of the facts herein set forth, that the same are true, accurate and complete to the best of my knowledge and belief, and that all information not identified by me as confidential in nature shall be treated by Department of Health as public record. I further state that I will assume responsibility for the construction, modification, or operation of the source in accordance with the Hawaii Administrative Rules, Title 11, Chapter 60.1, Air Pollution Control, and any permit issued thereof.

Responsible Official (Print): _____

Title: _____ Phone No. _____

Responsible Official (Signature): _____

MONTH	BAGASSE/BIOMASS CONSUMPTION (tons)	ROLLING 12-MONTH TOTAL (tons)		ROLLING 12-MONTH TOTAL (tons)
January				
February				
March				
April				
May				
June				
July				
August				
September				
October				
November				
December				
TOTAL				

Maximum % Sulfur Content by Weight: %_____ Date Rec: _____

PROPOSED

MONITORING/ANNUAL EMISSIONS REPORT FORM
BOILER 3 BAGASSE
CSP NO. 0054-01-C

Issuance Date: **Expiration Date:**

In accordance with the Hawaii Administrative Rules, Title 11, Chapter 60.1, Air Pollution Control, the permittee shall report to the Department of Health the following information **semi-annually**:

(Make copies for Future Use)

For Period: _____ to _____ Date: _____

Facility Name: _____

Equipment Location: _____

Equipment Description: _____

Serial/ID No.: _____

I certify that I have knowledge of the facts herein set forth, that the same are true, accurate and complete to the best of my knowledge and belief, and that all information not identified by me as confidential in nature shall be treated by Department of Health as public record. I further state that I will assume responsibility for the construction, modification, or operation of the source in accordance with the Hawaii Administrative Rules, Title 11, Chapter 60.1, Air Pollution Control, and any permit issued thereof.

Responsible Official (Print): _____

Title: _____ Phone No. _____

Responsible Official (Signature): _____

MONTH	BAGASSE/BIOMASS CONSUMPTION (tons)	ROLLING 12-MONTH TOTAL (tons)		ROLLING 12-MONTH TOTAL (tons)
January				
February				
March				
April				
May				
June				
July				
August				
September				
October				
November				
December				
TOTAL				

Did Boiler 3 burn less bagasse than 50% of its total annual heat input? _____ Date: _____

Why? _____

PROPOSED

MONITORING/ANNUAL EMISSIONS REPORT FORM
BOILERS 1 and 2 COAL
CSP NO. 0054-01-C

Issuance Date: **Expiration Date:**

In accordance with the Hawaii Administrative Rules, Title 11, Chapter 60.1, Air Pollution Control, the permittee shall report to the Department of Health the following information **semi-annually**:

(Make copies for Future Use)

For Period: _____ to _____ Date: _____

Facility Name: _____

Equipment Location: _____

Equipment Description: _____

Serial/ID No.: _____

I certify that I have knowledge of the facts herein set forth, that the same are true, accurate and complete to the best of my knowledge and belief, and that all information not identified by me as confidential in nature shall be treated by Department of Health as public record. I further state that I will assume responsibility for the construction, modification, or operation of the source in accordance with the Hawaii Administrative Rules, Title 11, Chapter 60.1, Air Pollution Control, and any permit issued thereof.

Responsible Official (Print): _____

Title: _____ Phone No._____

Responsible Official (Signature): _____

MONTH	COAL CONSUMPTION (tons)	ROLLING 12-MONTH TOTAL (tons)	NUMBER OF MONTHS EXCEEDING 62,606 (tons)	ROLLING 12-MONTH TOTAL OVER 62,606 (tons)
January				
February				
March				
April				
May				
June				
July				
August				
September				
October				
November				
December				
TOTAL				

Coal Maximum % Sulfur Content by Weight: _____% Date Rec: _____

PROPOSED

MONITORING/ANNUAL EMISSIONS REPORT FORM
BOILER 3 COAL
CSP NO. 0054-01-C

Issuance Date: **Expiration Date:**

In accordance with the Hawaii Administrative Rules, Title 11, Chapter 60.1, Air Pollution Control, the permittee shall report to the Department of Health the following information **semi-annually**:

(Make copies for Future Use)

For Period: _____ to _____ Date: _____

Facility Name: _____

Equipment Location: _____

Equipment Description: _____

Serial/ID No.: _____

I certify that I have knowledge of the facts herein set forth, that the same are true, accurate and complete to the best of my knowledge and belief, and that all information not identified by me as confidential in nature shall be treated by Department of Health as public record. I further state that I will assume responsibility for the construction, modification, or operation of the source in accordance with the Hawaii Administrative Rules, Title 11, Chapter 60.1, Air Pollution Control, and any permit issued thereof.

Responsible Official (Print): _____

Title: _____ Phone No._____

Responsible Official (Signature): _____

MONTH	COAL CONSUMPTION (tons)	PER ROLLING 12-MONTH TOTAL (tons)	NUMBER OF MONTHS EXCEEDING 45,000 (tons)	PER ROLLING 12-MONTH TOTAL (tons)
January				
February				
March				
April				
May				
June				
July				
August				
September				
October				
November				
December				
TOTAL				

Coal Maximum % Sulfur Content by Weight: _____% Date Rec: _____

PROPOSED

BOILER 3 EXCESS EMISSIONS AND MONITORING SYSTEM PERFORMANCE SUMMARY REPORT

(PAGE 1 OF 2)

(Make Copies for Future Use)

Facility Name: _____

Equipment Location: _____

Equipment Description: _____

Covered Source Permit No.: _____ Condition No.: _____

Code of Federal Regulations (CFR): _____

Pollutant Monitored: _____ Report one pollutant at a time (SO_2, NO_X, O_2, CO_2, or opacity)

From: Date _____ Time _____

To: Date _____ Time _____

Emission Limit: _____

Total Source Operating Time ..... _____

EMISSION DATA SUMMARY		EXPLANATION
Use a separate page if more space is required		
1. Duration (minutes) of Excess Emissions in Reporting Period due to:		
a. Start-Up/Shutdown	_____	_____
b. Cleaning/Soot Blowing	_____	_____
c. Control Equipment Failure	_____	_____
d. Process Problems	_____	_____
e. Other Known Causes	_____	_____
f. Unknown Causes	_____	_____
2. Number of incidents of Excess Emissions	_____	_____
3. Total Duration of Excess Emissions	_____	_____
4. (Total Duration of Excess Emissions) x (100) / (Total Source Operating Time)	____%	

CONTINUOUS MONITORING SYSTEM (CMS) PERFORMANCE SUMMARY

5. Date of Last COMS Certification/Audit _____
6. Number of opacity exceedences and opacity value per exceedence _____
   For opacity, record all times in minutes.
7. Number of incidents of COMS downtime _____
8. COMS Downtime (Hours/Periods/Reasons) in Reporting Period Due to:
   a. Monitor equipment malfunctions _____
   b. Non-monitoring malfunctions _____
   c. Quality assurance calibration _____
   d. _____
   e. Other Known Causes _____
   f. Unknown Causes _____
9. Total COMS downtime _____

PROPOSED

BOILER 3 EXCESS EMISSIONS AND MONITORING SYSTEM PERFORMANCE SUMMARY REPORT

(CONTINUED, PAGE 2 OF 2)

10. (Total COMS downtime) x (100) / (Total Source Operating Time)..... ____%

11. Date of Last CEMS Certification/Audit _____
12. Number of gas exceedences and concentration value (units as given in Table 1) per exceedence _____. For gases, record all times in hours.
13. Number of incidents of CEMS downtime _____
14. CEMS Downtime (Hours/Periods/Reasons) in Reporting Period Due to:

    a. Monitoring equipment malfunctions _____
    b. Non-monitoring equipment malfunctions _____
    c. Quality assurance calibration _____
    d. _____
    e. Other Known Causes _____
    f. Unknown Causes _____

15. Total CEMS downtime _____
16. (Total CEMS downtime) x (100) / (Total Source Operating Time)..... ____%
17. Describe any changes since last semi-annual reporting in continuing monitoring system (CMS), process, or controls.
18. For the reporting period: If the total duration of excess emissions is 1 percent or greater of the total operating time or the total CMS downtime is 5 percent or greater of the total operating time, both the summary report form and the excess emissions report form described on this form shall be submitted.

CERTIFICATION by Responsible Official

I certify that I have knowledge of the facts herein set forth, that the same are true, accurate and complete to the best of my knowledge and belief, and that all information not identified by me as confidential in nature shall be treated by the Department of Health as public record.

NAME (Print/Type): _____

Title: _____

(Signature): _____

PROPOSED

VISIBLE EMISSIONS FORM REQUIREMENTS
STATE OF HAWAII
COVERED SOURCE PERMIT NO. 0054-01-C

Issuance Date: **Expiration Date:**

The ***Visible Emissions (VE) Form*** shall be completed **monthly** (*each calendar month*) for each equipment subject to opacity limits in accordance with 40 CFR Part 60, Appendix A, Method 9. At least **annually** (*calendar year*), VE observation shall be conducted for each equipment subject to opacity limits by a certified reader in accordance with Method 9. The VE Form shall be completed as follows:

1. VE observations shall take place during the day. The opacity shall be noted in five (5) percent increments (e.g., 25%).
2. Orient the sun within a 140 degree sector to your back. Provide a source layout sketch on the VE Form using the symbols as shown.
3. For VE observations of stacks, stand at least three (3) stack heights but not more than a quarter mile from the stack.
4. For VE observations of fugitive emissions from crushing and screening plants, stand at least 4.57 meters (15 feet) from the visible emissions source, but not more than a quarter mile from the visible emission source.
5. Two (2) consecutive six (6) minute observations shall be taken at fifteen (15) second intervals for each stack or emission point.
6. The six (6) minute average opacity reading shall be calculated for each observation.
7. If possible, the observations shall be performed as follows:
    a. Read from where the line of sight is at right angles to the wind direction.
    b. The line of sight shall not include more than one (1) plume at a time.
    c. Read at the point in the plume with the greatest opacity (without condensed water vapor), ideally while the plume is no wider than the stack diameter.
    d. Read the plume at fifteen (15) second intervals only. Do not read continuously.
    e. The equipment shall be operating at the maximum permitted capacity.
8. If the equipment was shut-down for that period, briefly explain the reason for shut-down in the comment column.

The permittee shall retain the completed VE Forms for recordkeeping. These records shall be in a permanent form suitable for inspection, retained for a minimum of five (5) years, and made available to the Department of Health, or their representative upon request.

Any required initial and annual performance test performed in accordance with Method 9 by a certified reader shall satisfy the respective equipment's VE monitoring requirements for the month the performance test is performed.

PROPOSED

VISIBLE EMISSIONS FORM
COVERED SOURCE PERMIT NO. 0054-01-C

Issuance Date: **Expiration Date:**

(Make Copies for Future Use for Each Stack or Emission Point)

Company Name:_____

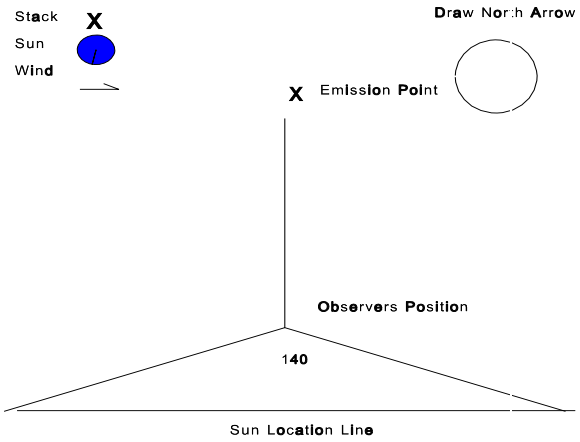
For stacks, describe equipment and fuel:_____

For fugitive emissions from crushers and screens, describe:

Fugitive emission point:_____

Plant Production (tons/hr):_____

(During observation)



Site Conditions:

Emission point or stack height above ground (ft):_____

Emission point or stack distance from observer (ft):_____

Emission color (black or white):_____

Sky conditions (% cloud cover):_____

Wind speed (mph):_____

Temperature (EF):_____

Observer Name:_____

Certified? (Yes/No):_____

Observation Date and Start Time:_____

	Seconds				
MINUTES	0	15	30	45	COMMENTS
1					
2					
3					
4					
5					
6					
Six (6) Minute Average Opacity Reading (%):					

Observation Date and Start Time:_____

	Seconds				
MINUTES	0	15	30	45	COMMENTS
1					
2					
3					
4					
5					
6					
Six (6) Minute Average Opacity Reading (%):					