

Date

**CERTIFIED MAIL**  
**RETURN RECEIPT REQUESTED**  
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E CAB  
File No. 0452

Mr. Randall J. Hee  
President and Chief Executive Officer  
Kauai Island Utility Cooperative  
4463 Pahe'e Street, Suite 1  
Lihue, Hawaii 96766

Dear Mr. Hee:

**Subject: Covered Source Permit (CSP) No. 0452-01-C  
Applications for a Minor Modification Nos. 0452-04 and 05 and Application for  
Renewal No. 0452-06  
Kauai Island Utility Cooperative  
One (1) 27.5 MW Combustion Turbine Generator with Heat Recovery Steam  
Generator and One (1) 600 kW Black Start Diesel Engine Generator  
Located at: 4941-K Maalo Road, Lihue, Kauai  
Date of Expiration: [5 Year Period from Issuance Date]**

The subject Covered Source Permit is issued in accordance with Hawaii Administrative Rules (HAR), Title 11, Chapter 60.1. The issuance of this permit is based on the plans, specifications, and additional information that you submitted as part of your application for a renewal and minor modification dated October 15, 2003; June 9, 2004; and February 22, 2005; and on correspondence dated January 6 and August 12, 2004; January 25, May 25, and November 17, 2005; and January 4, 6, May 22, and September 20, 2006. This permit supersedes in its entirety Covered Source Permit No. 0452-01-C issued on December 22, 2003.

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

- Attachment I: Standard Conditions
- Attachment II: Special Conditions
- Attachment II - INSIG: Special Conditions - Insignificant Activities
- Attachment III: Annual Fee Requirements
- Attachment IV: Annual Emissions Reporting Requirements

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The following forms are enclosed for your use and submittal as required:

Compliance Certification Form  
Excess Emission and Monitoring System Performance Summary Report  
Annual Emission Report Form: Ammonia Slip  
Annual Emission Report Form: Diesel Engine and Gas Turbine  
Annual Emission Report Form: Internal Floating Roof Petroleum Storage Tanks  
Monitoring Report Form: Combustion Turbine Generator Startup, Shutdown, and Air Pollution Control  
Monitoring Report Form: Combustion Turbine Generator Operating Load  
Monitoring Report Form: Combustion Turbine Generator Sulfur Dioxide Emissions and Fuel Certification  
Monitoring Report Form: Black Start Diesel Engine Generator Operating Hours and Fuel Certification  
Monitoring Report Form: Internal Floating Roof Storage Tanks  
Monitoring Report Form: Opacity Exceedances

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

Visible Emissions Form; and  
Ringelmann Chart

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,

THOMAS E. ARIZUMI, P.E., CHIEF  
Environmental Management Division

CL:se  
Enclosures

c: Rodney Yama, EHS - Kauai  
CAB Monitoring Section

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### ATTACHMENT I: STANDARD CONDITIONS COVERED SOURCE PERMIT NO. 0452-01-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)<sup>2</sup>

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)<sup>2</sup>

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:
- Identification of the specific equipment to be taken out of service, as well as its location and permit number;
  - The expected length of time that the air pollution control equipment will be out of service;
  - The nature and quantity of emissions of air pollutants likely to be emitted during the shutdown period;
  - Measures such as the use of off-shift labor and equipment that will be taken to minimize the length of the shutdown period; and
  - 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)<sup>2</sup>

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:
- Identification of each affected emission point and each emission limit exceeded;
  - Magnitude of each excess emission;
  - Time and duration of each excess emission;
  - Identity of the process or control equipment causing the excess emission;
  - Cause and nature of each excess emission;
  - 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;
  - 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)<sup>2</sup>

- 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.
- 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 the facility 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)<sup>2</sup>

25. Each permit renewal application shall be submitted to the Department of Health and the U.S. EPA Region 9 no less than twelve months and no more than eighteen months prior to the permit expiration date. The director may allow a permit renewal application to be submitted no less than six 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))<sup>1</sup>

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  
P.O. Box 3378  
Honolulu, HI 96801-3378

CSP No. 0452-01-C  
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Page 6 of 6  
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**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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<sup>1</sup> 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.

<sup>2</sup> 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.

**ATTACHMENT II: SPECIAL CONDITIONS  
COVERED SOURCE PERMIT NO. 0452-01-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) 27.5 MW General Electric LM2500 combustion turbine generator with steam injection;
  - b. One (1) unfired heat recovery steam generator (HRSG), with one (1) selective catalytic reduction (SCR) unit;
  - c. One (1) 72 foot high exhaust stack for the combustion turbine generator (diameter of 7 feet, 10-3/4 inches);
  - d. One (1) 600 kW Caterpillar, Inc. Model 3412C (TTA) black start diesel engine generator;
  - e. One (1) 6,043 barrel (nominal) capacity petroleum storage tank with internal floating roof; and
  - f. Two (2) each 2,887 barrel (nominal) capacity petroleum storage tanks with internal floating roof.

(Auth.: HAR §11-60.1-3)

2. Except for the stack, the permittee shall permanently attach an identification tag or name plate on each equipment which identifies the model no., serial or I.D. no., and manufacturer. The identification tag or name plate shall be permanently attached to the equipment in a conspicuous location.

(Auth.: HAR §11-60.1-5)

**Section B. Applicable Federal Regulations**

1. The combustion turbine generator and internal floating roof petroleum storage tanks are subject to the federal regulations of 40 CFR Part 60, Standards of Performance for New Stationary Sources, Subpart A - General Provisions.

(Auth.: HAR §11-60.1-3, §11-60.1-90, §11-60.1-161; 40 CFR §60.1) <sup>1</sup>

2. The combustion turbine generator is subject to the federal regulations entitled Standards of Performance for New Stationary Sources, 40 CFR Part 60, Subpart GG - Standards of Performance for Stationary Gas Turbines.

(Auth.: HAR §11-60.1-3, §11-60.1-90, §11-60.1-161; 40 CFR 60.330) <sup>1</sup>

3. The internal floating roof petroleum storage tanks are subject to the provisions of the Standards of Performance for New Stationary Sources, 40 CFR Part 60, Subpart Kb - Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for which Construction, Reconstruction, or Modification Commenced after July 23, 1984.

(Auth.: HAR §11-60.1-3, §11-60.1-90, §11-60.1-161; 40 CFR 60.110b)<sup>1</sup>

4. The permittee shall comply with all applicable requirements of these standards, including all emission limits, notification, reporting, monitoring, testing and recordkeeping requirements. The major requirements of these standards are detailed in the special conditions of this permit.

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

### **Section C. Operational and Emission Limitations**

#### 1. Combustion Turbine Generator

##### a. Startup and Shutdown

- 1) The startup time for the combustion turbine generator shall not exceed sixty (60) minutes. A startup sequence shall be from the time fuel use at the combustion turbine generator begins until the time the combustion turbine generator initially attains 25% load (6.875 MW).
- 2) The shutdown time for the combustion turbine generator shall not exceed twenty-five (25) minutes. A shutdown sequence shall be considered from the time when the combustion turbine generator is below 25% load (6.875 MW) until fuel use at the combustion turbine generator ceases.

##### b. Minimum Operational Loads

Except during combustion turbine generator startup and shutdown, the minimum combustion turbine generator load shall not be less than 25% of rated capacity (6.875 MW).

##### c. Air Pollution Control Equipment

- 1) The permittee shall operate, as necessary, and maintain the following air pollution control equipment to meet the emission limits as specified in Special Condition No. C.1.e.2) below:

- a) A combustor steam injection system; and
- b) A Selective Catalytic Reduction (SCR) system (with urea injection).

- 2) The combustor steam injection system shall be fully operational immediately after the startup sequence, and shall continue to operate until the commencement of the shutdown sequence of the combustion turbine generator.

##### d. Fuel Usage and Specifications

- 1) The combustion turbine generator shall only be fired on Naphtha, Fuel Oil No. 2, Jet-A, Heavy Straight Run Gasoline, Ethanol, Biodiesel [pure biodiesel (B100)], or any combination thereof. The maximum sulfur content of any fuel fired in the combustion turbine generator shall not exceed 0.4 percent by weight.

- 2) The combustion turbine generator shall be fired on Naphtha as a primary fuel and Fuel Oil No. 2, Jet-A, Heavy Straight Run Gasoline, Ethanol, Biodiesel [pure biodiesel (B100)], or any combination thereof, as alternate fuels. The permittee shall fire a combination of fuels such that sulfur dioxide emissions from the combustion turbine generator do not exceed 200 tons in any rolling twelve (12) month period.

e. Maximum Emission Limits

- 1) The permittee shall not discharge or cause the discharge into the atmosphere from the combustion turbine generator, any unit operating hour of nitrogen oxide (NO<sub>x</sub> as NO<sub>2</sub>) emissions averaged over any rolling four (4) hour period, in excess of the emission limit specified in 40 CFR §60.332(a)(1). For the purpose of demonstrating compliance with this condition, the four (4) hour averaging period shall include all periods of operation including startup, shutdown, and malfunction.
- 2) Except for the combustion turbine generator's startup and shutdown sequence, the permittee shall not discharge or cause the discharge into the atmosphere from the combustion turbine generator, nitrogen oxides (NO<sub>x</sub> as NO<sub>2</sub>), sulfur dioxide (SO<sub>2</sub>), PM<sub>10</sub>, carbon monoxide (CO), volatile organic compounds (VOC), and ammonia (NH<sub>3</sub>) in excess of the following specified limits:

Compound	Maximum Emission Limit (3-hour Average)	
	(lbs/hr)	(ppmvd @ 15 percent O <sub>2</sub> )
Nitrogen Oxides (as NO <sub>2</sub> ) 25% - 100% Load	12.92	15
Sulfur Dioxide 75.01% - ≤100% Load	94.3	79.3
50.01% - ≤ 75% Load	74.5	79.3
25.01% - ≤ 50% Load	56.6	79.3
25% load	41.5	
PM <sub>10</sub>	7.5	0.047 <sup>a</sup>
Carbon Monoxide 25% - 100% Load	47.16	150
Volatile Organic Compounds <sup>b</sup> 75.01% - ≤ 100% Load	19.8	65.8
50.01% - ≤ 75% Load	9.1	38.2
25% - ≤ 50% Load	7.8	43.5
Ammonia	3.16	10

<sup>a</sup> gr/dscf @ 12% CO<sub>2</sub>

<sup>b</sup> measured in terms of methane

Each unit operating hour of emissions, averaged over any rolling three-hour period, shall not exceed the limits as specified in the table above, except during the combustion turbine generator's startup and shutdown periods. The three hour averaging period shall begin immediately after the combustion turbine generator's startup, and end immediately prior to the combustion turbine generator's shutdown period. Startup and shutdown periods are as defined in Special Condition No. C.1.a.

The Department of Health may revise the permit to include operating ammonia-to-NO<sub>x</sub> injection rates, if findings through operating parameters and performance test results show an optimum operating range which minimizes emissions.

- 3) Total sulfur dioxide emissions from the combustion turbine generator shall not exceed two-hundred (200) tons in any rolling twelve (12) month period.

f. Opacity Limits

For any six (6) minute averaging period, the combustion turbine generator shall not exhibit visible emissions of twenty (20) percent opacity or greater, except as follows: during startup, shutdown, or equipment breakdown, the combustion turbine generator may exhibit visible emissions greater than twenty (20) percent opacity but not exceeding sixty (60) percent opacity for a period aggregating not more than six (6) minutes in any sixty (60) minute period.

- g. Although not required at this time, the Department of Health, if so desires, may at any time require the permittee to install and operate an opacity meter, additional continuous emission monitors, or to conduct additional source performance testing or ambient air quality monitoring.

(Auth.: HAR §11-60.1-3, §11-60.1-5, §11-60.1-32, §11-60.1-38, §11-60.1-90, §11-60.1-140, §11-60.1-161; SIP §11-60-24; 40 CFR 60.332, 40 CFR 60.333) <sup>1, 2</sup>

2. Black Start Diesel Engine Generator

- a. The maximum operating hours of the black start diesel engine generator shall not exceed eight (8) hours per day.
- b. The maximum operating hours of the black start diesel engine generator shall not exceed two-hundred (200) hours in any rolling twelve (12) month period.
- c. The black start diesel engine generator shall be fired only on Fuel Oil No. 2. The maximum sulfur content of the Fuel Oil No. 2 shall not exceed 0.4 percent by weight.
- d. For any six (6) minute averaging period, the diesel engine generator shall not exhibit visible emissions of twenty (20) percent opacity or greater, except as follows: during startup, shutdown, or equipment breakdown, the black start diesel engine generator may exhibit visible emissions greater than twenty (20) percent opacity 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, §11-60.1-32, §11-60.1-38, §11-60.1-90; SIP §11-60-24) <sup>2</sup>

3. Internal Floating Roof Storage Tanks

- a. The true vapor pressure of the fuel stored shall be maintained below 11.1 psia (76.6 kPa) at all times.

- b. The storage tanks shall each have a fixed roof with an internal floating roof and shall meet the following specifications:
  - 1) The internal floating roof shall rest or float on the liquid surface (but not necessarily in complete contact with it) inside the fixed roof storage tank. The internal floating roof shall be floating on the liquid surface at all times, except during initial fill and during those intervals when the storage tank is completely emptied or subsequently emptied and refilled. When the roof is resting on the leg supports, the process of filling, emptying, or refilling shall be continuous and shall be accomplished as rapidly as possible.
  - 2) The storage tanks shall be equipped with one of the following closure devices between the wall of the storage tank and the edge of the internal floating roof:
    - a) A foam or liquid-filled seal mounted in contact with the liquid (liquid-mounted seal);
    - b) Two seals mounted one above the other so that each forms a continuous closure that completely covers the space between the wall of the storage tank and the edge of the internal floating roof. The lower seal may be vapor mounted, but both must be continuous; or
    - c) A mechanical shoe seal.
  - 3) Each opening in a noncontact internal floating roof, except for automatic bleeder vents (vacuum breaker vents) and the rim space vents is to provide a projection below the liquid surface.
  - 4) Each opening in the internal floating roof except for leg sleeves, automatic bleeder vents, rim space vents, column wells, ladder wells, sample wells, and stub drains is to be equipped with a cover or lid which is to be maintained in a closed position at all times (i.e., no visible gap), except when the device is in actual use. The cover or lid shall be equipped with a gasket. Covers on each access hatch and automatic gauge float well shall be bolted except when they are in use.
  - 5) Automatic bleeder vents shall be equipped with a gasket and are to be closed at all times when the roof is floating, except when the roof is being floated off or is being landed on the roof support legs.
  - 6) Rim space vents shall be equipped with a gasket and are to be set to open only when the internal floating roof is not floating or at the manufacturer's recommended setting.
  - 7) Each penetration of the internal floating roof for the purpose of sampling shall be a sample well. The sample well shall have a slit fabric cover that covers at least 90 percent of the opening.
  - 8) Each penetration of the internal floating roof that allows for passage of a column supporting the fixed roof shall have a flexible fabric sleeve seal or a gasketed sliding cover.

- 9) Each penetration of the internal floating roof that allows for passage of a ladder shall have a gasketed sliding cover.

(Auth.: HAR §11-60.1-3, §11-60.1-39, §11-60.1-90, §11-60.1-161; 40 CFR 60.112b) <sup>1</sup>

#### **Section D. Monitoring and Recordkeeping Requirements**

1. All records, including support information, shall be maintained for at least five (5) years from the date of the monitoring data (e.g., original strip chart or computer continuous emission monitoring (CEM) recordings), measurements, tests, reports, or applications. Support information includes but is not limited to all calibration and maintenance records, inspection and repair records, and copies of all reports required by this permit. These records shall be in a permanent form suitable for inspection and shall be made available to the Department of Health or its representative upon request.

(Auth.: HAR §11-60.1-3, §11-60.1-11, §11-60.1-90, §11-60.1-161; 40 CFR §60.113, §60.115b, §60.334) <sup>1</sup>

2. Combustion Turbine Generator

- a. Continuous Monitoring System

Prior to the date of startup and thereafter, the permittee shall at its own expense install, operate, and maintain the following continuous monitoring systems for the combustion turbine generator to measure and record the following parameters or data. The associated date and time of the monitored data shall also be recorded.

- 1) Operating load in KW or MW;
- 2) The start and end times of each startup and each shutdown sequence;
- 3) The operating load (KW or MW) at which the steam injection system was initiated and terminated;
- 4) The operating load (KW or MW) at which the selective catalytic reduction (SCR) system was initiated and terminated;
- 5) Fuel usage in gallons/hour using a volumetric flow metering system;
- 6) Ammonia injection rate in pounds per hour (lbs/hr) and ammonia to NO<sub>x</sub> ratio. The ratio shall be based on the amount (lbs/hr) of ammonia injected into the SCR to the amount (lbs/hr) of NO<sub>x</sub> entering the HRSG with SCR;
- 7) NO<sub>x</sub> concentrations in the gas stream between the exit of the combustion turbine generator with steam injection system, and the entrance to the HRSG with SCR. Measurements shall be made by using a continuous emissions monitoring system (CEMS). The system shall meet U.S. EPA performance specifications as provided in Special Condition Nos. D.2.a.9), D.2.a.10), and D.2.a.11). The emission rates for NO<sub>x</sub> shall be recorded in parts per million by volume dry (ppmvd) at 15 percent O<sub>2</sub> and lbs/hr;

- 8) NO<sub>x</sub>, SO<sub>2</sub>, CO, and CO<sub>2</sub> or O<sub>2</sub> concentrations in the stack gases using a CEMS. If a CO<sub>2</sub> CEMS is used, 40 CFR Part 60, Appendix A, Method 20, Equations 20-2 and 20-5 shall be utilized. The CEMS shall meet U.S. EPA performance specifications as provided in Special Condition Nos. D.2.a.9), D.2.a.10), and D.2.a.11). For continuous monitoring of NO<sub>x</sub> concentrations, the CEMS shall meet the additional requirements as specified in 40 CFR Part 60, §60.334(b). The emission rates for NO<sub>x</sub>, SO<sub>2</sub>, and CO shall be recorded in ppmvd at 15 percent O<sub>2</sub> and lbs/hr;
- 9) The procedures under 40 CFR §60.13 shall be followed for installation, evaluation, and operation of the CEMS;
- 10) The CEMS shall be operated according to the performance specifications of 40 CFR Part 60, Appendix B;
- 11) Quarterly accuracy audits (consisting of Cylinder Gas Audits (CGA) and Relative Accuracy Test Audits (RATA)) and daily calibration drift tests shall be performed in accordance with 40 CFR Part 60, Appendix F. Successive quarterly accuracy audits shall occur no closer than two months apart. Relative Accuracy Test Audits (RATA) must be conducted at least once every four calendar quarters.

(Auth.: HAR §11-60.1-3, §11-60.1-5, §11-60.1-11, §11-60.1-90, §11-60.1-161; ; SIP §11-60-15; 40 CFR 60.334) <sup>1,2</sup>

- b. Fuel Data. Records on fuel usage and receipt dates of fuel deliveries, type of fuel, quantity of fuel, date batch sample taken, and the analyzed sulfur content (percent by weight) and higher heating value of the fuel (BTU/gal), including copies of the certificate of analysis for each batch of fuel received shall be maintained.
  - 1) Sulfur Content and Higher Heating Value of the Fuel. The sulfur content of the fuel to be fired in the combustion turbine generator shall be tested in accordance with the most current American Society for Testing and Materials (ASTM) methods. The samples for total sulfur content of the fuel shall be analyzed using ASTM D129-00, D2622-98, D4294-02, D1266-98, D5453-00, or D1552-01 (all of which are incorporated by reference, see 40 CFR Part 60, §60.17).
    - a) For each batch of fuel received, the fuel sulfur content (percent by weight) and higher heating value of the fuel (BTU/gal) shall be analyzed by taking an oil sample from:
      - i) The shipment tank or container upon receipt of each lot of fuel; or
      - ii) The supplier's storage container which holds the lot of fuel (a supplier need only sample the storage container once for sulfur content, gross calorific value (GCV), and density so long as the fuel sulfur content and GCV do not change and no fuel is added to the supplier's storage container).

A lot is defined as a shipment or delivery (e.g., ship load, barge load, group of trucks, discrete purchase of diesel fuel through a pipeline, etc.) of a single fuel.

- b) Oil sampling may be performed either by the permittee, an outside laboratory, or a fuel supplier, provided that samples are representative and that sampling is performed according to either the single tank composite sampling procedure or the all-levels sampling procedure in ASTM D4057-88, "Standard Practice for Manual Sampling of Petroleum and Petroleum Products" (incorporated by reference under 40 CFR §75.6).

Records of the sulfur contents (percent by weight) and higher heating value (BTU/gal) of the fuel shall be maintained on a monthly basis.

- 2) Total Fuel Usage. Records on the total amount (gallons) and type of each of the fuels fired in the combustion turbine generator shall be maintained on a daily and monthly basis. The dates of when the fuel is switched between Naphtha, Fuel Oil No. 2, Jet-A, Heavy Straight Run Gasoline, Ethanol, Biodiesel [pure biodiesel (B100)] or any combination thereof, shall be clearly identified.

(Auth.: HAR §11-60.1-3, §11-60.1-5, §11-60.1-11, §11-60.1-90, §11-60.1-161; SIP §11-60-15, §11-60-24; 40 CFR 60.334) <sup>1,2</sup>

- c. Sulfur Dioxide Emissions. For the purpose of monitoring compliance with the emission limitation of Special Condition No. C.1.e.3) the total tons of SO<sub>2</sub> emitted by the combustion turbine generator shall be monitored and recorded as follows:

- 1) The Continuous Emissions Monitoring System (CEMS) shall record SO<sub>2</sub> emissions; and
- 2) During all periods the CEMS is not in operation or is not providing valid data, except periods of routine daily calibration checks and zero and span adjustments, the permittee shall provide SO<sub>2</sub> emissions as follows:
  - a) For periods when the fuel tank has not been refilled or for periods when the tank supplying fuel to the turbine has not been changed, the permittee shall calculate an hourly SO<sub>2</sub> emission factor in lb/MMBtu using the average of the hourly SO<sub>2</sub> emission rates recorded by the CEMS for the unit operating hour immediately before and the unit operating hour immediately after the missing data period. This emission factor shall be used along with the recorded actual quantity of fuel fired during the missing data period, in gallons/hour, and the higher heating value of the fuel, in MMBtu/gallon, to calculate SO<sub>2</sub> emissions for the missing data period. The higher heating value of the fuel shall represent the highest of the twelve (12) most recent fuel analyses for the type of fuel fired during the missing data period. The substitute emission rate used shall represent use of the same fuel tank and same tank contents (i.e. the tanks must not have been refilled or changed during the missing data period).
  - b) During periods of missing data when the fuel tank supplying the combustion turbine generator is refilled or when the tank supplying fuel to the turbine has changed, SO<sub>2</sub> emissions shall be calculated using the following mass balance calculation:

$$SO_2 = a \times b \times S \times c$$

SO<sub>2</sub> = sulfur dioxide emissions, in pounds

a = volume of fuel fed to the turbine, in gallons

b = maximum projected unit weight of the fuel fed to the turbine, in pounds per gallon

S = fuel sulfur content in percent by weight (for example, for fuel having 0.4% sulfur content, S = 0.004)

S shall represent the highest of the twelve (12) most recent fuel analyses for the type of fuel fired during the missing data period or, the maximum sulfur content for the fuel as shown on fuel specification sheets

c = 2, the ratio of pounds of sulfur dioxide to pounds of sulfur

- c) In lieu of the procedures of Special Condition Nos. D.2.c.2)a) and D.2.c.2)b), the permittee may use a value of 0.41 lb SO<sub>2</sub>/MMBtu. This value along with the recorded actual quantity of fuel used during the missing data period, in gallons/hour, and the higher heating value of the fuel, in MMBtu/gallon, shall be used to calculate SO<sub>2</sub> emissions for the missing data period. The higher heating value of the fuel shall represent the highest of the twelve (12) most recent fuel analyses for the type of fuel fired during the missing data period.

All back-up data, calculations, and the resulting sulfur dioxide emissions shall be maintained.

(Auth.: HAR §11-60.1-3, §11-60.1-5, §11-60.1-11, §11-60.1-90; SIP §11-60-15) <sup>2</sup>

- d. Performance Test. Annual source performance tests shall be conducted pursuant to this Attachment, Section F Testing Requirements. The Department of Health may require additional source performance tests in the event of fuel switches between Naphtha, Fuel Oil No. 2, Jet-A, Heavy Straight Run Gasoline, Ethanol, Biodiesel [pure biodiesel (B100)], or any combination thereof. Records of test summaries and results shall be maintained.

(Auth.: HAR §11-60.1-3, §11-60.1-5, §11-60.1-11, §11-60.1-90, §11-60.1-161; SIP §11-60-15) <sup>2</sup>

- e. Ammonia Slip. Records shall be maintained on the amount of ammonia slip from the operation of the SCR. Estimates of ammonia slip shall be based on the ammonia emission rates measured during the annual performance tests required by this Attachment, Section F. Back-up data, calculations, and the resulting ammonia emissions shall be maintained on a monthly basis.

(Auth.: HAR §11-60.1-3, §11-60.1-5, §11-60.1-11, §11-60.1-90; SIP §11-60-15) <sup>2</sup>

- f. An inspection, maintenance, and repair log shall be maintained for the combustion turbine generator and SCR system. Replacement and repairs to the SCR's catalyst shall be well documented.

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

g. Visible Emissions (V.E.)

- 1) Except in those months where visible emissions (V.E.) observations are conducted pursuant to Special Condition No. D.2.g.2) the permittee shall conduct **monthly** (*calendar month*) V.E. observations for the combustion turbine generator in accordance with 40 CFR Part 60, Appendix A, Method 9 or by use of a Ringelmann chart as provided. 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. Records shall be completed and maintained in accordance with the *Visible Emissions Form Requirements*.
- 2) The permittee shall conduct **annually** (*calendar year*) V.E. observations for the combustion turbine generator by a certified reader in accordance with 40 CFR Part 60, Appendix A, Method 9. For the annual observation, the permittee shall record two (2) consecutive observations, each six (6) minutes in duration with readings taken at fifteen (15) second intervals. Records shall be completed and maintained in accordance with the *Visible Emissions Form Requirements*.
- 3) Upon written request and justification by the permittee, the Department of Health may waive the requirements for the **annual** V.E. observation. The waiver request is to be submitted prior to the required annual V.E. observation and must include documentation justifying such action. Documentation should include, but is not limited to, the results of the prior V.E. 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** V.E. observation. The annual V.E. observation shall not be waived for more than two consecutive years.

Please note that the waiving of an annual (Method 9) V.E. observation does not absolve the permittee from any monthly (Method 9 or Ringelmann Chart) V.E. requirements. Monthly V.E. observations should still be performed in accordance with Special Condition No. D.2.g.1).

(Auth.: HAR §11-60.1-3, §11-60.1-5, §11-60.1-11, §11-60.1-32, §11-60.1-90; SIP §11-60-15, §11-60-24)<sup>2</sup>

3. Black Start Diesel Engine Generator

- a. The permittee shall operate and maintain a non-resetting hour meter for the continuous and permanent recording of the total hours the black start diesel engine generator is operated for the purpose of the hourly limitations of Special Condition No. C.2.a. and C.2.b.

The following information shall be recorded:

- 1) For each day the black start diesel engine generator is operated:
  - a) Date of meter readings;
  - b) Beginning and ending meter readings; and
  - c) Total operating hours for the day.

2) On a monthly basis:

- a) The total number of hours the diesel engine generator is operated each month; and
- b) The total number of hours the diesel engine generator operated on a rolling twelve (12) month basis.

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

- b. Fuel purchase receipts, showing the supplier, fuel type, sulfur content in percent by weight, date of delivery, and amount (gallons) of fuel delivered to the site for the black start diesel engine generator shall be maintained. Fuel sulfur content may be demonstrated by providing the supplier's fuel certification for the type of fuel purchased and received.

(Auth.: HAR §11-60.1-3, §11-60.1-5, §11-60.1-11, §11-60.1-90; SIP §11-60-15)<sup>2</sup>

- c. Total Fuel Usage. Records on the total amount (gallons) and type of fuel fired in the black start diesel engine generator shall be maintained on an annual basis.

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

d. Visible Emissions (V.E.)

- 1) Except in those months where visible emissions (V.E.) observations are conducted pursuant to Special Condition No. D.3.d.2), the permittee shall conduct, for each month the black start diesel engine generator is operated, **monthly** (*calendar month*) V.E. observations for the diesel engine generator in accordance with 40 CFR Part 60, Appendix A, Method 9 or by use of a Ringelmann chart as provided. 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. Records shall be completed and maintained in accordance with the *Visible Emissions Form Requirements*.
- 2) The permittee shall conduct **annually** (*calendar year*) V.E. observations for the black start diesel engine generator by a certified reader in accordance with 40 CFR Part 60, Appendix A, Method 9. For the annual observation, the permittee shall record two (2) consecutive observations, each six (6) minutes in duration with readings taken at fifteen (15) second intervals. Records shall be completed and maintained in accordance with the *Visible Emissions Form Requirements*.
- 3) Upon written request and justification by the permittee, the Department of Health may waive the requirements for the **annual** V.E. observation. The waiver request is to be submitted prior to the required annual V.E. observation and must include documentation justifying such action. Documentation should include, but is not limited to, the results of the prior V.E. 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** V.E. observation. The annual V.E. observation shall not be waived for more than two consecutive years.

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**PROPOSED**

Please note that the waiving of an annual (Method 9) V.E. observation does not absolve the permittee from any monthly (Method 9 or Ringelmann Chart) V.E. requirements. Monthly V.E. observations should still be performed in accordance with Special Condition No. D.3.d.1).

(Auth.: HAR §11-60.1-3, §11-60.1-5, §11-60.1-11, §11-60.1-32, §11-60.1-90; SIP §11-60-15, §11-60-24)<sup>2</sup>

#### 4. Internal Floating Roof Storage Tanks

##### a. Tank inspections shall be performed as follows:

- 1) For a tank equipped with the seal system specified in Special Condition No. C.4.b.2)a), inspect in accordance with Special Condition Nos. D.4.b. and D.4.c.
- 2) For a tank equipped with the seal system specified in Special Condition No. C.4.b.2)b), inspect in accordance with:
  - a) Special Condition Nos. D.4.b. and D.4.c.; or alternatively
  - b) Special Condition No. D.4.c., except that an inspection shall be performed **at least every five (5) years** instead of ten (10) years.
- 3) For a tank equipped with the seal system specified in Special Condition No. C.4.b.2)c) inspect in accordance with Special Condition Nos. D.4.b. and D.4.c.

(Auth.: HAR §11-60.1-3, §11-60.1-5, §11-60.1-11, §11-60.1-90, §11-60.1-161, 40 CFR §60.113b, SIP §11-60-15)<sup>1,2</sup>

##### b. Annual Inspection

The permittee shall visually inspect the internal floating roof and the primary seal or the secondary seal (if one is in service) through manholes and roof hatches on the fixed roof **at least once every twelve (12) months** after initial fill. If the internal floating roof is not resting on the surface of the VOL inside the storage tank, or there is liquid accumulated on the roof, or the seal is detached, or there are holes or tears in the seal fabric, the owner or operator shall repair the items or empty and remove the storage tank from service **within forty-five (45) days**. If a failure that is detected during inspections required in this paragraph cannot be repaired **within forty-five (45) days** and if the tank cannot be emptied **within forty-five (45) days**, a **thirty (30) day** extension may be requested from the Administrator in the inspection report required by Special Condition No. E.9.b. Such a request for an extension must document that alternate storage capacity is unavailable and specify a schedule of actions the company will take that will assure that the control equipment will be repaired or the tank will be emptied as soon as possible.

(Auth.: HAR §11-60.1-3, §11-60.1-5, §11-60.1-11, §11-60.1-90, §11-60.1-161, 40 CFR §60.113b, SIP §11-60-15)<sup>1,2</sup>

c. Inspection (Emptied and Degassed)

The permittee shall visually inspect the internal floating roof, the primary seal, the secondary seal (if one is in service), gaskets, slotted membranes and sleeve seals (if any) each time the storage tank is emptied and degassed. If the internal floating roof has defects, the primary seal has holes, tears, or other openings in the seal or the seal fabric, or the secondary seal has holes, tears, or other openings in the seal or the seal fabric, or the gaskets no longer close off the liquid surfaces from the atmosphere, or the slotted membrane has more than ten (10) percent open area, the owner or operator shall repair the items as necessary so that none of the conditions specified in this paragraph exist before refilling the storage tank with VOL. In no event shall inspections conducted in accordance with this paragraph occur at intervals greater than **ten (10) years**, and no greater than **five (5) years** for inspections conducted in accordance with Special Condition No. D.4.a.2)b).

(Auth.: HAR §11-60.1-3, §11-60.1-5, §11-60.1-11, §11-60.1-90, §11-60.1-161, 40 CFR §60.113b, SIP §11-60-15)<sup>1, 2</sup>

d. Records

- 1) The permittee shall keep records of each inspection performed as required by Special Condition No. D.4.b. and D.4.c. Records shall include the tank identification, the date the tank was inspected, and the observed condition of each component of the control equipment (seals, internal floating roof, and fittings, etc.).
- 2) For each storage tank, records shall be maintained on the type of VOL stored, the period of storage, and the maximum true vapor pressure (kPa) of VOL during the respective storage period. Determination of the maximum true vapor pressure shall be done in accordance with 40 CFR, Part 60, §60.116b(e).
- 3) Records showing the dimensions (meters or feet) of each storage tank and the analysis showing the capacity (cubic meters or cubic feet) of each storage tank shall be maintained for the life of the tanks.

(Auth.: HAR §11-60.1-3, §11-60.1-5, §11-60.1-11, §11-60.1-90, §11-60.1-161, 40 CFR §60.113b, SIP §11-60-15)<sup>1, 2</sup>

**Section E. Notification and Reporting Requirements**

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

a. *Intent to shut down air pollution control equipment for necessary scheduled maintenance, with the following exception:*

- 1) *Notification and reporting need not be performed for a shutdown of the SCR system that does not result in an exceedence of the emission limits of Special Condition No. C.1.e.2).*

- 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 §11-60.1-8, §11-60.1-15, §11-60.1-16, §11-60.1-90; SIP §11-60-10, §11-60-16)<sup>2</sup>

- 2. The permittee shall report (in writing) **within five (5) working days** any deviations from the permit requirements, including those attributable to upset conditions, the probable cause of such deviations and any corrective actions or preventive measures taken. Corrective actions may include a requirement for additional source testing, more frequent monitoring, or the implementation of a corrective action plan.

(Auth.: HAR §11-60.1-3, §11-60.1-5, §11-60.1-16, §11-60.1-90)

- 3. **At least thirty (30) days prior to** the following events, the permittee shall notify the Department of Health in writing of:

- a. *Conducting a performance specification test on the CEMS.* The testing date shall be in accordance with the performance test date identified in 40 CFR Part 60, Section 60.13.
- b. *Conducting a source performance test* as required by this Attachment, Section F, Testing Requirements.

(Auth.: HAR §11-60.1-3, §11-60.1-5, §11-60.1-90, §11-60.1-161; 40 CFR 60.13, 40 CFR 60.113b)<sup>1</sup>

- 4. Combustion Turbine Generator Excess Emissions and Monitor Downtime Reporting

- a. The permittee shall submit to the Department of Health and the U.S. EPA reports of **all excess emissions and monitor downtime** in accordance with 40 CFR, Part 60, §60.7(c). Excess emissions shall be reported for all periods of unit operation, including startup, shutdown and malfunction. For the purpose of reports required under §60.7(c), periods of excess emissions and monitor downtime that shall be reported are defined as follows:

- 1) An hour of excess emissions shall be any unit operating hour in which the 4-hour rolling average emissions of NO<sub>x</sub> concentration, as measured by the continuous emissions monitoring system, exceed the emission limit set forth in Special Condition No. C.1.e.1). A 4-hour rolling average concentration is the arithmetic average of the average NO<sub>x</sub> pollutant concentration measured by the CEMS for a given hour (corrected to 15% O<sub>2</sub> and, if required under 40 CFR Part 60, §60.335(b)(1), to ISO standard conditions) and the three unit operating hour average pollutant concentrations immediately preceding that unit operating hour.
- 2) An hour of excess emissions shall be any unit operating hour in which the 3-hour rolling average emissions of NO<sub>x</sub>, SO<sub>2</sub>, or CO concentration, as measured by the continuous emissions monitoring system, exceed the emission limits set forth in Special Condition Nos. C.1.e.2). A 3-hour rolling average concentration is the arithmetic average of the

average NO<sub>x</sub>, SO<sub>2</sub>, or CO pollutant concentration measured by the CEMS for a given hour (corrected to 15 percent O<sub>2</sub> and, if required under 40 CFR Part 60, §60.335(b)(1), to ISO standard conditions) and the two unit operating hour average pollutant concentrations immediately preceding that unit operating hour.

- 3) A period of monitor downtime shall be any unit operating hour in which sufficient data are not obtained to validate the hour, for NO<sub>x</sub>, SO<sub>2</sub>, CO or diluent (or NO<sub>x</sub> concentration, SO<sub>2</sub> concentration or CO concentration, and diluent)
- b. The excess emissions and monitor downtime report shall include the following:
- 1) Ambient conditions (temperature, pressure, and humidity) at the time of the excess emission period. Ambient conditions need not be reported if the worst case ISO correction factor as specified in 40 CFR, Part 60, §60.334(b)(3)(ii) is used, or if the ISO correction equation under the provisions of §60.335(b)(1) is not used.
  - 2) The magnitude of excess emissions computed in accordance with 40 CFR Part 60, Section 60.13(h), any conversion factors used, and the date and time of commencement and completion of each time period of excess emissions, and the corresponding operating load of the combustion turbine generator.
  - 3) Specific identification of each period of excess emissions that occurs during startups and shutdowns, and malfunctions of the combustion turbine generator/heat recovery steam generator. The nature and cause of any malfunction (if known), and the corrective action taken or preventive measures adopted, shall also be reported.
  - 4) The date and time identifying each period during which the continuous monitoring system was inoperative except for zero and span checks. The nature of each system repair or adjustment shall be described.
  - 5) The report shall so state if no excess emissions have occurred. Also, the report shall so state if the CEMS operated properly during the period and was not subject to any repairs or adjustments except for zero and span checks.
- c. The enclosed **Excess Emissions and Monitoring System Performance Summary Report Form** or an equivalent form shall be submitted in conjunction with the above **excess emissions and monitoring downtime** report. One summary report shall be submitted for each pollutant monitored. All reports shall be submitted **by the 30th day following the end of each semi-annual calendar period**.
- d. Excess emissions exceeding the emission limit set forth in Special Condition No. C.1.e.1) indicated by the continuous emissions monitoring system shall be considered violations of the permit limit if it is determined that the combustion turbine generator was not operated in a manner consistent with good air pollution control practice for minimizing emissions. Excess emissions data may be used to determine whether a facility's operation and maintenance procedures are consistent with this requirement.

- e. Excess emissions exceeding the emission limit set forth in Special Condition No. C.1.e.2) as indicated by the continuous emissions monitoring system shall be considered violations of the emission limit.

(Auth.: HAR §11-60.1-3, §11-60.1-11, §11-60.1-90, §11-60.1-161; SIP §11-60-15; 40 CFR §60.7, 40 CFR §60.13, 40 CFR §60.334)<sup>1,2</sup>

5. Quarterly Accuracy Audits

- a. The test reports for the CGA shall be submitted **by the 30th day following the end of each semi-annual calendar period.**
- b. The test reports for the RATA shall be submitted **within 60 days after completion of the RATA.**

(Auth.: HAR §11-60.1-3, §11-60.1-11, §11-60.1-90; 40 CFR §60.8)<sup>1</sup>

6. Semi-Annual/Periodic Monitoring Report Form

Combustion Turbine Generator. The permittee shall submit to the Department of Health sulfur dioxide emissions, in tons, from the combustion turbine generator in accordance with the following schedule:

- a. Semi-annual reporting. The permittee shall submit **semi-annually**, total sulfur dioxide emissions from the combustion turbine generator on a rolling twelve (12) month basis. The report shall be submitted **within sixty (60) days after the end of each semi-annual calendar period (January 1 - June 30 and July 1 - December 31)**. Back-up data, calculations, and the resulting sulfur dioxide emissions obtained for the periods the CEMS was not in operation or was not providing valid data shall be submitted for the reporting period.
- b. Periodic reporting. Should SO<sub>2</sub> emissions exceed one-hundred eighty four (184) tons in any rolling twelve (12) month period, the permittee shall report the total tons of SO<sub>2</sub> on a rolling twelve (12) month basis **within twenty (20) calendar days following the end of the month** showing the exceedence. The information shall be submitted along with information on the measures taken to ensure compliance with the two-hundred (200) tons per rolling twelve (12) month period sulfur dioxide emission limit.

The enclosed **Monitoring Report Form: Combustion Turbine Generator Sulfur Dioxide Emissions and Fuel Certification** or equivalent form shall be used.

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

- 7. The permittee shall submit **semi-annually** the following written reports to the Department of Health. The reports shall be submitted **within sixty (60) days after the end of each semi-annual calendar period (January 1 - June 30 and July 1 - December 31)**, and shall include the following:

- a. Combustion Turbine Generator

- 1) Exceedence of startup and shutdown durations. Each exceedence of the daily startup and shutdown limit specified in Special Condition No. C.1.a. shall be reported as

follows:

- a) All periods of time (date, time, and duration) when the startup or shutdown sequence exceeds sixty (60) minutes and twenty-five (25) minutes, respectively;
- b) The reason why the time limit was exceeded; and
- c) The report shall so state if no exceedences of the startup and shutdown time limits have occurred.

The enclosed **Monitoring Report Form: Combustion Turbine Generator Startup, Shutdown, and Air Pollution Control** or equivalent form, shall be used.

- 2) Initiation of Air Pollution Controls. The permittee shall report:
  - a) All periods of time (date, time, duration) when the combustor steam injection system is not fully operational immediately after the startup sequence and the load at which the air pollution control becomes fully operational; and
  - b) All periods of time (date, time, duration) when the combustor steam injection system fails to remain fully operational until the commencement of the shut-down sequence.

The enclosed **Monitoring Report Form: Combustion Turbine Generator Startup, Shutdown, and Air Pollution Control** or equivalent form, shall be used.

- 3) Minimum combustion turbine generator load. Except for the combustion turbine generator's startup and shutdown sequence, report all periods of time (date, time, and duration) when the minimum operating load for the turbine is less than 25% (6.875 MW) of the rated capacity. The enclosed **Monitoring Report Form: Combustion Turbine Generator Operating Load** or equivalent form shall be used.
- 4) A summary of the occurrence and duration of any malfunction in the operation of the combustion turbine generator and air pollution control device, and the corrective actions taken.
- 5) Certification on the types of fuel fired in the combustion turbine generator and certification that the sulfur content of all fuels fired in the combustion turbine generator did not exceed 0.4% by weight, the enclosed **Monitoring Report Form: Combustion Turbine Generator Sulfur Dioxide Emissions and Fuel Certification** or equivalent form shall be used.
- 6) Any opacity exceedences as determined by the required V.E. 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 exceedences, the permittee shall submit in writing a statement indicating that for the combustion turbine generator there were no exceedences for that semi-annual period.

The enclosed **Monitoring Report Form: Visible Emissions** or an equivalent form shall be used.

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b. Black Start Diesel Engine Generator

- 1) Exceedences of the eight (8) hour per day operating limit and total hours of operation on a rolling twelve (12) month basis. Each exceedence of the limit specified in Special Condition No. C.2.a. shall be reported along with the total hours operated on a rolling twelve (12) month basis. The report shall provide:
  - a) All periods of time (date, time, and duration) when the black start diesel engine generator was operated for more than eight (8) hour per day;
  - b) The report shall so state if no exceedences of the eight (8) hour per day limit have occurred; and
  - c) Total hours of operation for each month, and the amount of hours operated on a rolling twelve (12) month basis. The enclosed **Monitoring Report Form: Black Start Diesel Engine Generator Operating Hours and Fuel Certification** or equivalent form shall be used.
- 2) Certification on the types of fuel fired in the black start diesel engine generator and certification that the sulfur content of all fuels fired in the black start diesel engine generator did not exceed 0.4% by weight, the enclosed **Monitoring Report Form: Black Start Diesel Engine Generator Operating Hours and Fuel Certification** or equivalent form shall be used.
- 3) Any opacity exceedences as determined by the required V.E. monitoring. Each exceedence reported shall include the date, six (6) minute average opacity reading, possible reason for exceedence, duration of exceedence, and corrective actions taken. If there were no exceedences, the permittee shall submit in writing a statement indicating that for the black start diesel engine generator there were no exceedences for that semi-annual period.

The enclosed **Monitoring Report Form: Visible Emissions** or an equivalent form shall be used.

(Auth.: HAR §11-60.1-3, §11-60.1-5, §11-60.1-90, §11-60.1-161; 40 CFR 60.334, 40 CFR 60.116b)<sup>1</sup>

c. Internal Floating Roof Storage Tanks

- 1) The type of fuel stored in each tank, dates of storage, and true vapor pressure (kPa) of the fuel stored during the respective storage period by month; and
- 2) A summary of any defects found with the control equipment and storage tank(s) during the reporting period for which an inspection was performed.

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

8. 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; and
- f. Any additional information as required by the Department of Health including information to determine compliance.

The compliance certification shall be submitted ***within ninety (90) 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 §11-60.1-4, §11-60.1-86, §11-60.1-90)

9. Internal Floating Roof Petroleum Storage Tank

a. Filling and Refilling

The permittee shall notify the Department of Health in writing **at least thirty (30) days prior** to the filling or refilling of each storage tank for which an inspection is required by Special Condition No. D.4.c. If the inspection is not planned and the permittee could not have known about the inspection **thirty (30) days in advance** of refilling the tank, the permittee shall notify the Department of Health **at least seven (7) days prior** to the refilling of the storage tank. Notification shall be made by telephone immediately followed by written documentation demonstrating why the inspection was unplanned. Alternatively, this notification including the written documentation may be made in writing and sent by express mail so that the Department of Health receives the notice **at least seven (7) days prior** to the refilling.

(Auth.: HAR §11-60.1-3, §11-60.1-5, §11-60.1-11, §11-60.1-90, §11-60.1-161; SIP §11-60-

15; 40 CFR §60.113b)<sup>1,2</sup>

b. Annual Inspection Report

If any of the conditions described in Special Condition No. D.4.b. are detected during the annual visual inspection required by Special Condition No. D.4.b., a report shall be submitted to the Department of Health and the U.S. EPA **within thirty (30) days** of the annual visual inspection. Each report shall identify the storage tank, the nature of the defects, and the date the storage tank was emptied or the nature of and date the repair was made.

(Auth.: HAR §11-60.1-3, §11-60.1-11, §11-60.1-90, §11-60.1-161; SIP §11-60-15; 40 CFR §60.113b, 40 CFR §60.115b)<sup>1,2</sup>

c. Other Inspection Report

A report shall be submitted for inspections required by Special Condition No. D.4.a.2). This report shall be submitted to the Department of Health and the U.S. EPA **within thirty (30) days** of an inspection, if an inspection performed pursuant to Special Condition No. D.4.b. or D.4.c. finds holes or tears in the seal or seal fabric, or defects in the internal floating roof, or other control equipment defects listed in Special Condition No. D.4.c. The report shall identify the storage tank and the reason it did not meet the specifications of Special Condition No. C.4.b. or Special Condition No. D.4.a.2) and list each repair made.

(Auth.: HAR §11-60.1-3, §11-60.1-11, §11-60.1-90, §11-60.1-161; SIP §11-60-15; 40 CFR §60.113b, 40 CFR §60.115b)<sup>1,2</sup>

10. Annual Emissions

As required by Attachment IV and in conjunction with the requirements of Attachments 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 Emission Report Forms** or equivalent forms shall be used in reporting emissions.

Upon written request of the permittee, the deadline for reporting 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, §11-60.1-90, §11-60.1-114)

**Section F. Testing Requirements**

1. On an annual basis or at other times as specified by the Department of Health, the permittee shall conduct or cause to be conducted performance tests on the combustion turbine generator.

(Auth.: HAR §11-60.1-5, §11-60.1-11, §11-60.1-90; 40 CFR 60.335)<sup>1</sup>

2. The annual performance test shall be conducted at the following specified loads of the

combustion turbine generator, or at other operating loads as may be specified by the Department of Health. The Department of Health may define the type(s) of fuel for which the performance test will be conducted.

- a. The performance test shall be conducted for nitrogen oxides (NO<sub>x</sub>) and carbon monoxide (CO) at 100 percent of peak load.
- b. The performance test shall be conducted for fine particulate matter (PM<sub>10</sub>), volatile organic compounds (VOC), and ammonia (NH<sub>3</sub>) at 25, 50, 75, and 100 percent of peak load. The tests for NH<sub>3</sub> shall be performed with the selective catalytic reduction system (SCR) in operation.
- c. The performance test shall be conducted for carbon dioxide (CO<sub>2</sub>) or oxygen (O<sub>2</sub>) concentrations in the gas stream between the exit of the combustion turbine generator with steam injection system, and the entrance to the HRSG with SCR. If CO<sub>2</sub> is measured, 40 CFR Part 60, Appendix A, Method 20, Equations 20-2 and 20-5 shall be utilized. Although not required at this time, the Department of Health, if so desires, may at any time require the permittee to install and operate a continuous emission monitor to measure carbon dioxide (CO<sub>2</sub>) or oxygen (O<sub>2</sub>) in the gas stream between the exit of the combustion turbine generator with steam injection system, and the entrance to the HRSG with SCR.
- d. Although not required at this time, the Department of Health, if so desires, may at any time require the permittee to conduct source performance tests for SO<sub>2</sub>.
- e. The permittee may use a multi-hole probe, designed and documented to sample equal volumes from each hole, to sample simultaneously at the required sampling points in accordance with 40 CFR §60.335(a)(4).

(Auth.: HAR §11-60.1-3, §11-60.1-5, §11-60.1-11, §11-60.1-90, §11-60.1-161; 40 CFR 60.335)<sup>1</sup>

3. The performance tests shall be conducted and the results reported in accordance with the test methods set forth in 40 CFR Part 60, Appendix A, and 40 CFR Part 60, Section 60.8. The following test methods, or U.S. EPA approved equivalent methods with prior written consent from the Department of Health shall be used:
  - a. Performance tests for the emissions of NO<sub>x</sub> shall be conducted using 40 CFR Part 60, Methods 1-4 and 7E, or Methods 1-4 and 20.
  - b. Performance tests for the emissions of CO shall be conducted using 40 CFR Part 60, Methods 1-4 and 10.
  - c. Performance tests for the emissions of VOC shall be conducted using 40 CFR Part 60, Methods 1-4 and 25A, or Methods 1-4, 25A, and 18.
  - d. Performance tests for the emissions of particulate matter shall be conducted using 40 CFR Part 60, Methods 1-4 and 201A or Methods 1-5 and 202.
  - e. Performance tests for the emissions of ammonia shall be conducted using Conditional Test Method 027 or BAAQMD Method ST-1B.

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(Auth.: HAR §11-60.1-5, §11-60.1-11, §11-60.1-90, §11-60.1-161, SIP §11-60-15;  
40 CFR 60.335)<sup>1,2</sup>

4. The performance test shall consist of three (3) separate runs using the applicable test method. For the purpose of determining compliance with an applicable regulation, the arithmetic mean of the results from the three (3) runs shall apply.

(Auth.: HAR §11-60.1-5, §11-60.1-11, §11-60.1-90, §11-60.1-161; SIP §11-60-15; 40 CFR 60.8)<sup>1, 2</sup>

5. **At least thirty (30) calendar days prior** to performing a test, the permittee shall submit a written performance test plan, to the Department of Health and the U.S. EPA Region 9, describing the test duration, test locations, test methods, source operation and other parameters (e.g., type of fuel to be fired) that may affect test results. Such a plan shall conform to U.S. EPA Region 9 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, §11-60.1-161; SIP §11-60-15; 40 CFR 60.8)<sup>1, 2</sup>

6. The permittee shall provide sampling and testing facilities at its own expense. The tests shall be conducted at the operating capacities identified in Special Condition No. F.2. and the Department of Health may monitor the tests.

(Auth.: HAR §11-60.1-5, §11-60.1-11, §11-60.1-90; SIP §11-60-15)<sup>2</sup>

7. Any deviations from these conditions, test methods, or procedures may be cause for rejection of the test results unless such deviations receive written approval by the Department of Health before the tests.

(Auth.: HAR §11-60.1-11, §11-60.1-90; SIP §11-60-15)<sup>2</sup>

8. **Within sixty (60) days after** completion of the performance test, the permittee shall submit to the Department of Health and the U.S. EPA Region 9 the test report which shall include the operating conditions of the combustion turbine generator at the time of the test, the analysis of the fuel, the summarized test results, comparative results with the permit emission limits, and other pertinent field and laboratory data.

(Auth.: HAR §11-60.1-11, §11-60.1-90)

9. Upon written request and justification, the Department of Health may waive the requirement for a specific annual source 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 §11-60.1-11, §11-60.1-90)

**Section G. Agency Notification**

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

(Auth.: HAR §11-60.1-4, §11-60.1-90)

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<sup>1</sup> 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.

<sup>2</sup> 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.

**ATTACHMENT II - INSIG  
SPECIAL CONDITIONS - INSIGNIFICANT ACTIVITIES  
COVERED SOURCE PERMIT NO. 0452-01-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, 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:

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; and
6. Any additional information as required by the Department of Health including information to determine compliance.

The compliance certification shall be submitted **within ninety (90) 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.

In lieu of addressing each emission unit as specified in *Compliance Certification Form*, 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.

(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 I, Standard Condition No. 28.

(Auth.: HAR §11-60.1-4, §11-60.1-90)

**ATTACHMENT III: ANNUAL FEE REQUIREMENTS  
COVERED SOURCE PERMIT NO. 0452-01-C**

**[Issuance Date]**

**[Expiration Date]**

The following requirements for the submittal of annual fees are established pursuant to Hawaii Administrative Rules (HAR), Title 11, Chapter 60.1, Air Pollution Control. Should HAR, Chapter 60.1 be revised such that the following requirements are in conflict with the provisions of HAR, Chapter 60.1, the permittee shall comply with the provisions of HAR, Chapter 60.1:

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 be submitted on forms furnished by the Department of Health.
4. The annual fees and the emission data shall be mailed to:

**Clean Air Branch  
Environmental Management Division  
Hawaii Department of Health  
P. O. Box 3378  
Honolulu, HI 96801-3378**

**ATTACHMENT IV: ANNUAL EMISSIONS REPORTING REQUIREMENTS  
COVERED SOURCE PERMIT NO. 0452-01-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.

1. Complete the attached form(s):

Annual Emission Report Form:	Ammonia Slip
Annual Emission Report Form:	Diesel Engine and Gas Turbine
Annual Emission Report Form:	Internal Floating Roof Petroleum Storage Tanks

2. The reporting period shall be from January 1 to December 31 of each year. All reports shall be submitted to the 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  
Hawaii Department of Health  
P. O. Box 3378  
Honolulu, HI 96801-3378**

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 Department of Health upon request.
4. Any information submitted to the Department of Health without a request for confidentiality shall be considered public record.
5. In accordance with HAR, Section 11-60.1-14, the permittee may request confidential treatment of specific information, including information concerning secret processes or methods of manufacture, by submitting a written request to the Director and clearly identifying the specific information that is to be accorded confidential treatment.

**COMPLIANCE CERTIFICATION FORM  
COVERED SOURCE PERMIT NO. 0452-01-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.

**COMPLIANCE CERTIFICATION FORM  
COVERED SOURCE PERMIT NO. 0452-01-C  
(CONTINUED, PAGE 2 OF \_\_\_)**

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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. 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**

<u>Permit term/condition</u> All standard conditions	<u>Equipment(s)</u> All Equipment(s) listed in the permit	<u>Compliance</u> Continuous Intermittent
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**B. Special Conditions - Monitoring, Recordkeeping, Reporting, Testing, and INSIG**

<u>Permit term/condition</u> All monitoring conditions	<u>Equipment(s)</u> All Equipment(s) listed in the permit	<u>Compliance</u> Continuous Intermittent
<u>Permit term/condition</u> All recordkeeping conditions	<u>Equipment(s)</u> All Equipment(s) listed in the permit	<u>Compliance</u> Continuous Intermittent
<u>Permit term/condition</u> All reporting conditions	<u>Equipment(s)</u> All Equipment(s) listed in the permit	<u>Compliance</u> Continuous Intermittent
<u>Permit term/condition</u> All testing conditions	<u>Equipment(s)</u> All Equipment(s) listed in the permit	<u>Compliance</u> Continuous Intermittent
<u>Permit term/condition</u> All INSIG conditions	<u>Equipment(s)</u> All Equipment(s) listed in the permit	<u>Compliance</u> Continuous Intermittent

**COMPLIANCE CERTIFICATION FORM  
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**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.

<u>Permit term/condition</u>	<u>Equipment(s)</u>	<u>Method</u>	<u>Compliance</u>
		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)**

**COMPLIANCE CERTIFICATION FORM  
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**D. Deviations**

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

**(Make Additional Copies if Needed)**

EXCESS EMISSION AND MONITORING SYSTEM  
PERFORMANCE SUMMARY REPORT  
COVERED SOURCE PERMIT NO. 0452-01-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)

Facility Name: \_\_\_\_\_

Company Name: \_\_\_\_\_

Equipment Location: \_\_\_\_\_

Equipment Description: \_\_\_\_\_

**Pollutant Monitored:** \_\_\_\_\_

From: Date: \_\_\_\_\_ Time: \_\_\_\_\_

To: Date: \_\_\_\_\_ Time: \_\_\_\_\_

Emission Limit: \_\_\_\_\_

Date of Last CEMS Certification/Audit: \_\_\_\_\_

**Total Source Operating Time:** \_\_\_\_\_

EMISSION DATA SUMMARY

1. Duration (Hours) of Excess Emissions in Reporting Period due to:
  - a. Startup/Shutdown..... \_\_\_\_\_
  - b. Cleaning/Soot Blowdown..... \_\_\_\_\_
  - c. Control Equipment Failure..... \_\_\_\_\_
  - d. Process Problems..... \_\_\_\_\_
  - e. Other Known Causes..... \_\_\_\_\_
  - f. Unknown Causes..... \_\_\_\_\_
  - g. Fuel Problems..... \_\_\_\_\_

Number of incidents of excess emissions..... \_\_\_\_\_
2. Total Duration of Excess Emissions..... \_\_\_\_\_
3. Total Duration of Excess Emissions..... \_\_\_\_\_  
(% of Total Source Operating Time)

EXCESS EMISSION AND MONITORING SYSTEM  
PERFORMANCE SUMMARY REPORT  
COVERED SOURCE PERMIT NO. 0452-01-C  
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CEMS PERFORMANCE SUMMARY

1. CEMS Downtime (Hours) in Reporting Period Due to:
  - a. Monitor Equipment Malfunctions..... \_\_\_\_\_
  - b. Non-Monitor Equipment Malfunctions..... \_\_\_\_\_
  - c. Quality Assurance Calibration..... \_\_\_\_\_
  - d. Other Known Causes..... \_\_\_\_\_
  - e. Unknown Causes..... \_\_\_\_\_
 Number of incidents of monitor downtime..... \_\_\_\_\_
2. Total CEMS Downtime..... \_\_\_\_\_
3. Total CEMS Downtime..... \_\_\_\_\_  
(% of Total Source Operating Time)

EXCESS EMISSIONS ATTRIBUTED TO AN IMPLEMENTED ALTERNATE OPERATING SCENARIO

1. Number of incidents of excess emissions: \_\_\_\_\_
2. If incident(s) are reported, identify on a separate sheet the implemented alternate operating scenarios that has contributed to excess emissions. Describe the alternate operating scenario, and include the date, time, type and duration of excess emissions, and reason for exceedences.

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.**

Responsible Official (PRINT): \_\_\_\_\_

TITLE: \_\_\_\_\_

Responsible Official (Signature): \_\_\_\_\_

**ANNUAL EMISSIONS REPORT FORM  
AMMONIA SLIP  
COVERED SOURCE PERMIT NO. 0452-01-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.

(Make Copies for Future Use)

For Period: \_\_\_\_\_ Date: \_\_\_\_\_

Company Name: \_\_\_\_\_

Facility Name: \_\_\_\_\_

Equipment Location: \_\_\_\_\_

Equipment Description: \_\_\_\_\_

Equipment Capacity/Rating (specify units): \_\_\_\_\_

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: \_\_\_\_\_

Responsible Official (Signature): \_\_\_\_\_

Ammonia Slip Estimate for the Selective Catalytic Reduction (SCR) Unit Operating with the  
Combustion Turbine Generator

Month	Ammonia Slip <sup>a</sup> (pounds)	Notes
January		
February		
March		
April		
May		
June		
July		
August		
September		
October		
November		
December		

<sup>a</sup> Provide method used to calculate ammonia slip.

# PROPOSED

**ANNUAL EMISSIONS REPORT FORM  
DIESEL ENGINE AND GAS TURBINE  
COVERED SOURCE PERMIT NO. 0452-01-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.

(Make Copies for Future Use)

*Complete separate forms for the Black Start Diesel Engine Generator and the Combustion Turbine Generator.*

For Period: \_\_\_\_\_ Date: \_\_\_\_\_

Company Name: \_\_\_\_\_

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 the Department of Health as public record.**

Responsible Official (PRINT): \_\_\_\_\_

TITLE: \_\_\_\_\_

Responsible Official (Signature): \_\_\_\_\_

For the reporting period:

Type of Fuel Fired	Fuel Usage (gallons/year)	% Sulfur Content by weight	Identify % Nitrogen, % Ash, & % Lead, if applicable

Types of Fuel:

Residual Oil: Specify Grade, No. 6, 5, or 4; • Liquefied Petroleum Gas, Butane or Propane;  
Distillate Oil (No. 2); • If Other, specify.

Type of Air Pollution Control	In Use?	Pollutant(s) Controlled	Control Efficiency, % Reduction

**ANNUAL EMISSIONS REPORT FORM  
INTERNAL FLOATING ROOF PETROLEUM STORAGE TANK  
COVERED SOURCE PERMIT NO. 0452-01-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 nature and amounts of emissions.

(Make Copies for Future Use)

For Period: \_\_\_\_\_ Date: \_\_\_\_\_

Company Name: \_\_\_\_\_

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 the Department of Health as public record.**

Responsible Official (PRINT): \_\_\_\_\_

TITLE: \_\_\_\_\_

Responsible Official (Signature): \_\_\_\_\_

Tank and Product Description					
Tank Numbers					
Capacity (bbl)					
Diameter (ft) - <b>D</b>					
Exterior Color					
Type of Deck <sup>1</sup>					
Number of Columns (Dimensionless) - <b>N<sub>c</sub></b>					
Type of Rim Seal <sup>2</sup>					
Total Number of Different Deck Fittings <sup>3</sup> (Dimensionless) - <b>n<sub>f</sub></b>					
Product Name					
Reid Vapor Pressure(psi)					
True Vapor Pressure (psia) - <b>P<sub>VA</sub></b>					
Average Storage Temperature. (°F)					
Annual Throughput (bbl/yr) - <b>Q</b>					

**ANNUAL EMISSIONS REPORT FORM  
INTERNAL FLOATING ROOF PETROLEUM STORAGE TANK  
COVERED SOURCE PERMIT NO. 0452-01-C  
(CONTINUED, PAGE 2 OF 2)**

**Issuance Date:**

**Expiration Date:**

- <sup>1</sup> Type A: Column-supported fixed roof with bolted deck  
Type B: Column-supported fixed roof with welded deck  
Type C: Self-supporting fixed roof with bolted deck  
Type D: Self-supporting fixed roof with welded deck
- <sup>2</sup> Type VMP: Vapor-mounted resilient foam-filled primary seal only  
Type LMP: Liquid-mounted resilient foam-filled primary seal only  
Type LFP: Liquid-filled primary seal only  
Type MSP: Mechanical shoe primary seal only  
Type VMPS: Vapor-mounted resilient foam-filled primary seal plus secondary seal  
Type LMPS: Liquid-mounted resilient foam-filled primary seal plus secondary seal  
Type LFPS: Liquid-filled primary seal plus secondary seal  
Type MSPSS: Mechanical shoe primary seal plus secondary seal (shoe mounted)  
Type MSPSR: Mechanical shoe primary seal plus secondary seal (rim mounted)
- <sup>3</sup> For each tank, provide a listing of each type of deck fitting and the corresponding quantity of each fitting.  
[See Table 7.1-12, AP-42, Section 7.1(9/97)]





**MONITORING REPORT FORM  
COMBUSTION TURBINE GENERATOR  
SULFUR DIOXIDE EMISSIONS AND FUEL CERTIFICATION  
COVERED SOURCE PERMIT NO. 0452-01-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/periodically:

(Make Copies for Future Use)

For Period: \_\_\_\_\_ Date: \_\_\_\_\_

Company Name: \_\_\_\_\_

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 the Department of Health as public record.**

Responsible Official (PRINT): \_\_\_\_\_

TITLE: \_\_\_\_\_

Responsible Official (Signature): \_\_\_\_\_

For the reporting period, report sulfur dioxide emissions from the Combustion Turbine Generator:

Month	Monthly Sulfur Dioxide Emissions (tons)	Sulfur Dioxide Emissions Rolling 12 - Month Basis (tons)
January		
February		
March		
April		
May		
June		

Month	Monthly Sulfur Dioxide Emissions (tons)	Sulfur Dioxide Emissions Rolling 12-Month Basis (tons)
July		
August		
September		
October		
November		
December		

Fuel Certification:

Equipment Description	Type of Fuel Fired	Max. % Sulfur Content by Weight

Back-up data, calculations, and the resulting SO<sub>2</sub> emissions obtained for the periods the CEMS was not in operation or was not providing valid data shall be submitted for the reporting period.

**MONITORING REPORT FORM  
BLACK START DIESEL ENGINE GENERATOR  
OPERATING HOURS AND FUEL CERTIFICATION  
COVERED SOURCE PERMIT NO. 0452-01-C  
(CONTINUED, 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: \_\_\_\_\_ Date: \_\_\_\_\_

Company Name: \_\_\_\_\_

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 the Department of Health as public record.**

Responsible Official (PRINT): \_\_\_\_\_

TITLE: \_\_\_\_\_

Responsible Official (Signature): \_\_\_\_\_

For the reporting period, report:

Exceedence of Black Start Diesel Engine Generator 8-hour per day operating limit of Special Condition No. C.2.a.:

Date of Exceedence	Operated From (time)	Operated To (time)	Total Hours Operated on this Date	Reason for exceeding the daily limitation of Special Condition No.

Please indicate in the table above if no exceedence to the daily limitation has occurred.

**MONITORING REPORT FORM  
 BLACK START DIESEL ENGINE GENERATOR  
 OPERATING HOURS AND FUEL CERTIFICATION  
 COVERED SOURCE PERMIT NO. 0452-01-C  
 (CONTINUED, 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:

Operating hours for the Black Start Diesel Engine Generator on a monthly and rolling 12-month basis:

Month	Monthly Operating Hours Black Start Diesel Engine Generator	Operating Hours Rolling 12 - Month Basis
January		
February		
March		
April		
May		
June		
July		
August		
September		
October		
November		
December		

Fuel Certification:

Equipment Description	Type of Fuel Fired	% Sulfur Content by Weight
Black Start Diesel Engine Generator		

- 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.





**VISIBLE EMISSIONS FORM REQUIREMENTS  
STATE OF HAWAII  
COVERED SOURCE PERMIT NO. 0452-01-C**

**Issuance Date:**

**Expiration Date:**

The **Visible Emissions (V.E.) 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 or use of a Ringelmann Chart as provided. At least **annually** (*calendar year*), V.E. observation shall be conducted for each equipment subject to opacity limits by a certified reader in accordance with Method 9. The V.E. Form shall be completed as follows:

1. Visible emissions observations shall take place during the day only and shall be compared to the Ringelmann Chart provided. 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 V.E. Form using the symbols as shown.
3. For V.E. observations of stacks, stand at least three (3) stack heights but not more than a quarter mile from the stack.
4. For V.E. 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 V.E. Forms for recordkeeping. These records shall be in a permanent form suitable for inspection, retained for a minimum of five 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 V.E. monitoring requirements for the month the performance test is performed.

**VISIBLE EMISSIONS FORM  
COVERED SOURCE PERMIT NO. 0452-01-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)



Draw North Arrow



**X** Emission Point

Observers Position

140

Sun Location Line

**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 (°F): \_\_\_\_\_

Observer Name: \_\_\_\_\_

Certified? (Yes/No): \_\_\_\_\_

Observation Date and Start Time: \_\_\_\_\_

Method of observation (Ringelmann Chart or Method 9): \_\_\_\_\_

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

Observation Date and Start Time: \_\_\_\_\_

Method of observation (Ringelmann Chart or Method 9): \_\_\_\_\_

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