ISSUE DATE

CERTIFIED MAIL 09-xxxE CAB
RETURN RECEIPT REQUESTED File No. 0255-01
(xxx)

Mr. William C. Goldate
Vice President, Engineering and Construction
Covanta Energy
40 Lane Road
Fairfield, New Jersey 07004

Dear Mr. Goldate:

Subject: Covered Source Permit (CSP) No. 0255-01-C
Application for Modification No. 0255-05
Covanta Honolulu Resource Recovery Venture (CHRRV)
Honolulu Program of Waste Energy Recovery (H-POWER)
H-POWER Municipal Waste Combustor Facility
Located at: 91-174 Hanua Street, Kapolei, Oahu
UTM - 592,618 Meters East and 2,356,415 Meters North, Zone 4 (NAD-27)
Date of Expiration: February 27, 2011

The subject covered source permit is issued in accordance with Hawaii Administrative Rules (HAR), Title 11, Chapter 60.1, Air Pollution Control and 40 Code of Federal Regulations (CFR) §52.21, Prevention of Significant Deterioration (PSD). The issuance of this permit is based on the plans, specifications, and information that you submitted as part of your application for modification on October 24, 2008 to expand the facility by adding a 900 ton per day mass-burn municipal waste combustor (MWC) boiler to the existing facility. Existing equipment for the facility includes two (2) 854 ton per day refuse derived fuel (RDF) MWC boilers. The issuance of this permit is also based on the additional information received on March 4 and 9, April 3 and 14, May 18, 22, and 26, August 10, 17, 19, 20, 25, and 31, September 1, 2 and October 5, 6, 8, and 12, 2009 as part of your application.

The conditions of this permit modification supersede all conditions contained in all prior permits. Permit conditions pertaining to each of the two electrostatic precipitators in Attachment IIB shall remain valid until the fabric filter baghouse replacements for the applicable unit are installed and initially operated.

The covered source permit is issued subject to the conditions/requirements set forth in the following attachments:

Attachment I: Standard Conditions
Attachment IIA: Special Conditions – Mass-Burn MWC Boiler
Attachment IIB: Special Conditions – RDF MWC Boilers
Attachment IIC Special Conditions – Waste Processing Facility
Attachment IID Special Conditions – Cooling Towers
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 your use and submittal as required:

Compliance Certification Form
Excess Emission and Monitoring System Performance Summary Report
Annual Emissions Report Form: MWC Boilers
Annual Emissions Report Form: Waste Processing Facility Baghouses
Annual Emissions Report Form: Cooling Towers
Monitoring Report Form: MWC Boiler Fuel Consumption
Monitoring Report Form: MWC Boiler Operation
Monitoring Report Form: Waste Processing Facility Baghouses
Monitoring Report Form: Cooling Towers

The following plans are enclosed for compliance assurance monitoring requirements:

Compliance Assurance Monitoring Plan: Fluorides and Sulfuric Acid Mist
Compliance Assurance Monitoring Plan: PM, PM_{10}, $PM_{2.5}$, and MWC Metals

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 Hawaii 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

MM:nn
Enclosures

c: Robert Webster, H-POWER
CAB Monitoring Section

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APPROVAL TO CONSTRUCT A STATIONARY PSD SOURCE
(CSP NO. 0255-01-C)
COVANTA HONOLULU RESOURCE RECOVERY VENTURE
H-POWER FACILITY EXPANSION, KAPOLEI, OAHU

In compliance with the provisions of the Clean Air Act, as amended, and the PSD delegation agreement of August 15, 1983, as amended on January 5, 1989, between the U.S. Environmental Protection Agency (EPA), Region 9, and the State of Hawaii, CHRRV is hereby granted approval to construct a stationary source for the H-POWER facility expansion which includes a 900 ton per day mass-burn MWC boiler, associated air pollution control equipment and systems, and three-cell cooling tower. Air pollution control for the new boiler will include a spray dryer absorber to minimize (sulfur dioxide (SO_2), hydrochloric acid (HCl), sulfuric acid mist (H_2SO_4), and hydrogen fluoride (HF)), baghouse for particulate removal, baghouse combined with carbon injection to control MWC metals, spray dryer absorber and baghouse combined with carbon injection and good combustion control to minimize MWC organics, good combustion control for reducing carbon monoxide (CO) emissions, and selective non-catalytic reduction (SNCR) combined with Covanta very low-NO_X (VLN) system to minimize nitrogen oxide (NO_X) emissions. Approval to construct is granted in accordance with the plans submitted with the application and with the federal regulations governing the prevention of significant air quality deterioration (40 CFR §52.21) and other conditions attached to this document and made part of this approval.

Failure to comply with any condition or term set forth in this approval will be considered grounds for enforcement action pursuant to Section 113 of the Clean Air Act.

This approval to construct and operate a stationary PSD source grants no relief from the responsibility for compliance with any other applicable provisions of 40 CFR, Parts 52, 60, 61, 63, and 64 or any applicable federal, state, or local air quality regulations.

This approval shall become effective thirty (30) days after the service of notice on the final permit action unless so appealed.

_____
Thomas Arizumi
Chief, Environmental Management Division
Hawaii Department of Health

Date: _____

_____
Deborah Jordan
Director, Air Division
U.S. Environmental Protection Agency, Region 9

Date: _____

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ATTACHMENT I: STANDARD CONDITIONS
COVERED SOURCE PERMIT NO. 0255-01-C

Issuance Date: **Expiration Date: February 27, 2011**

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 wilfully defaced, altered, forged, counterfeited, or falsified.

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

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

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

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

   (Auth.: HAR §11-60.1-7)

5. In the event of any changes in control or ownership of the facilities to be constructed or modified, this permit shall be binding on all subsequent owners and operators. The permittee shall notify the succeeding owner and operator of the existence of this permit and its conditions by letter, copies of which will be forwarded to the Department of Health and the U.S. Environmental Protection Agency (EPA), Region 9.

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

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

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

7. This permit: (a) does not release the permittee from compliance with other applicable statutes of the State of Hawaii, or with applicable local laws, regulations, or ordinances, and (b) shall not constitute, nor be construed to be an approval of the design of the covered source.

(Auth.: HAR §11-60.1-5, §11-60.1-82)

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

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

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

   (Auth.: HAR §11-60.1-90)

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

    (Auth.: HAR §11-60.1-90)

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

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

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

    (Auth.: HAR §11-60.1-90)

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

    (Auth.: HAR §11-60.1-90)

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

    a. The **anticipated date of initial start-up** for each emission unit of a new source or significant modification not more than sixty (60) days or less than thirty (30) days prior to such date;
    b. The **actual date of construction commencement** within fifteen (15) days after such date; and
    c. The **actual date of start-up** within fifteen (15) days after such date.

(Auth.: HAR §11-60.1-90)

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

    (Auth.: HAR §11-60.1-14, §11-60.1-90)

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

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

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

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

    a. Identification of each affected emission point and each emission limit exceeded;
    b. Magnitude of each excess emission;
    c. Time and duration of each excess emission;
    d. Identity of the process or control equipment causing each excess emission;
    e. Cause and nature of each excess emission;

f. Description of the steps taken to remedy the situation, prevent a recurrence, limit the excessive emissions, and assure that the malfunction or breakdown does not interfere with the attainment and maintenance of the National Ambient Air Quality Standards and state ambient air quality standards;
g. Documentation that the equipment or process was at all times maintained and operated in a manner consistent with good practice for minimizing emissions; and
h. A statement that the excess emissions are not part of a recurring pattern indicative of inadequate design, operation, or maintenance.

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

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

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

(Auth.: HAR §11-60.1-14, §11-60.1-90)

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

a. Construction shall be commenced within eighteen (18) months after the permit takes effect, shall not be discontinued for a period of eighteen (18) months or more, and shall be 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, §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 assure 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)[2]

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

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

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

(Auth.: HAR §11-60.1-93)

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

(Auth.: HAR §11-60.1-90)

28. The best available control technology (BACT) emission limits specified in Attachment IIA, Special Condition No. C.8, Attachment IIB, Special Condition No. D.2, and other associated conditions, are derived from the PSD requirements of 40 CFR §52.21. With the exception of permit conditions associated with the PSD regulations, the operating permit shall expire on the designated expiration date. The permit will remain valid past its expiration date after

a complete permit renewal application is submitted in accordance with HAR §11-60.1-101 prior to the permit expiration date.

(Auth.: HAR §11-60.1-3, §11-60.1-90, §11-60.1-101, 40 CFR §52.21)[1]

29. All PSD conditions are subject to the applicable procedures in 40 CFR Part 124, including the appeal provisions in 40 CFR §124.19.

(Auth.: HAR §11-60.1-3, §11-60.1-90, §11-60.1-101, 40 CFR §52.21)[1]

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

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

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

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

(Auth.: HAR §11-60.1-4, §11-60.1-90)

31. 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)

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

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

ATTACHMENT IIA: SPECIAL CONDITIONS – MASS-BURN MWC BOILER
COVERED SOURCE PERMIT NO. 0255-01-C

Issuance Date: **Expiration Date: February 27, 2011**

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. Attachment IIA of this permit encompasses a 900 ton per day Martin mass-burn waterwall MWC boiler with Covanta VLN system, feed chute, moving grate, integrated furnace/boiler, associated ash collection systems, 277 feet high x 7.3 feet diameter exhaust stack, and the following post combustion controls;

   a. SNCR system;
   c. Powdered activated carbon injection system;
   d. Lime injection system;
   e. Spray dryer absorber; and
   f. Fabric filter baghouse.

   (Auth.: HAR §11-60.1-3)

2. The permittee shall permanently attach an identification tag or name plate on the 900 ton per day MWC boiler, SNCR system, powdered activated carbon injection system, spray dryer absorber, and fabric filter baghouse which identifies the applicable model no., serial no., and manufacturer. The identification tag or name plate shall be permanently attached to the equipment at a conspicuous location.

   (Auth.: HAR §11-60.1-5)

Section B. Applicable Federal Regulations

1. The mass-burn MWC boiler and associated equipment are subject to the following federal regulations:

   a. 40 CFR Part 60, Standards of Performance for New Stationary Sources, Subpart A, General Provisions.

   b. 40 CFR Part 60, Standards of Performance for New Stationary Sources, Subpart Eb, Standards of Performance for Large Municipal Waste Combustors for Which Construction is Commenced After September 20, 1994 or for Which Modification or Reconstruction is Commenced After June 19, 1996.

   c. 40 CFR Part 64, Compliance Assurance Monitoring.

   d. 40 CFR Part 52, §52.21, Prevention of Significant Deterioration of Air Quality.

2. The permittee shall comply with all applicable provisions of these standards, including all emission limits and all notification, testing, monitoring, and reporting 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; 40 CFR §52.21, §60.50b; §64.2)[1]

Section C. Operational and Emissions Limitations

1. Fuel Limits

   a. Except as provided in Attachment IIA, Special Condition No. C.12, the mass-burn MWC boiler shall be fired only on municipal solid waste (MSW), fuel oil No. 2, and used cooking oil.

   b. The maximum firing rate of the mass-burn MWC boiler shall not exceed 1,200 gallons per hour for the total combined firing of fuel oil No. 2 and used cooking oil auxiliary fuels.

   c. The total combined fuel oil No. 2 and used cooking oil auxiliary fuel consumption for the mass-burn MWC boiler shall not exceed 869,250 gallons in any rolling twelve-month (12-month) period.

   d. The maximum sulfur content of the fuel oil No. 2 auxiliary fuel fired by the mass-burn MWC boiler shall not to exceed 0.05% by weight.

   e. The mass-burn MWC boiler shall only be fired on fuel oil No. 2 auxiliary fuel during warm-up periods.

   f. The mass-burn MWC boiler shall only be fired on fuel oil No. 2 auxiliary fuel and MSW during start-up and shut-down periods.

   (Auth.: HAR §11-60.1-3, §11-60.1-38, §11-60.1-90; 40 CFR §52.21)[1]

2. Warm-up, Start-up, Shut-down, and Malfunction

   a. Except as provided in Attachment IIA, Special Condition No. C.2.b, the duration of start-up, shut-down, or malfunction periods for the mass-burn MWC boiler shall be limited to three (3) hours per occurrence. A start-up period commences when the boiler begins the continuous burning of MSW and does not include any warm-up period. A warm-up period is when the boiler is combusting fossil fuel or other nonmunicipal solid waste fuel, and no MSW is being fed to the combustor. Continuous burning is the continuous, semi-continuous, or batch feeding of MSW for purposes of waste disposal, energy production, or providing heat to the combustion system in preparation for waste disposal or energy production. The use of MSW solely to provide thermal protection of the grate or hearth during the start-up period when MSW is not being fed to the grate is not considered to be continuous burning. Shut-down

commences when the MSW feed is stopped and fuel oil No. 2 auxiliary fuel is added to burn the remaining MSW in the mass-burn MWC boiler.

b. For purposes of compliance with the carbon monoxide emission limit specified in Attachment IIA, Special Condition No. C.8.d, if a loss of boiler water level control (e.g., boiler waterwall tube failure) or loss of combustion air control (e.g., loss of combustion air fan, induced air fan, combustion grate bar failure) is determined to be a malfunction, the duration of the malfunction period is limited to fifteen (15) hours per occurrence.

c. The duration of warm-up periods for the mass-burn MWC boiler shall not exceed 12 hours at a time.

d. Except for compliance calculations for opacity and mass emission limits specified in Attachment IIA, Special Condition Nos. C.8.a, C.8.b, and C.8.c, during periods of warm-up, start-up, shut-down, or malfunction of the mass-burn MWC boiler, continuous monitoring system (CMS) data shall be dismissed or excluded from compliance calculations, but shall be recorded and reported pursuant to Attachment IIA, Special Condition No. D.14. Monitoring data to determine compliance with the limits specified in Attachment IIA, Special Condition Nos. C.8.a, C.8.b, C.8.c, and C.9 shall not be excluded from compliance calculations.

(Auth.: HAR §11-60.1-3, §11-60.1-5, §11-60.1-90, §11-60.1-161; 40 CFR §52.21, §60.58b(a)(1))[1]

3. Combustion Temperature

In any 4-hour block arithmetic average, except during warm-up, start-up, shutdown, or malfunction, the combustion temperature of the mass-burn MWC boiler shall be maintained at or above 1,800 ^{O}F. Combustion temperature is defined as the temperature of combustion gases at a point above the grate and below secondary air injection. Compliance with this criterion shall be established based upon correlated furnace roof thermocouple measurements. The correlated roof thermocouple temperature (based upon an average of thermocouples across the furnace width) shall be established during initial performance testing.

(Auth.: HAR §11-60.1-3, §11-60.1-5, §11-60.1-90; 40 CFR §52.21)[1]

4. Air Pollution Control Equipment and Systems

a. The permittee shall continuously operate and maintain the following air pollution control equipment and systems to minimize air emissions:

1) Covanta VLN system;
2) SNCR system;
3) Powdered activated carbon injection system;
4) Lime injection system;

5) Spray dryer absorber; and
6) Fabric filter baghouse.

b. Post combustion air pollution control systems shall be placed into service as follows:

1) On a continuous basis for the fabric filter baghouse;
2) Prior to initiation of waste combustion for the Covanta VLN system, SNCR system, powdered activated carbon injection system, lime injection system, and spray dryer absorber; and
3) Until cessation of continuous MSW combustion for the Covanta VLN system, SNCR system, powdered activated carbon injection system, lime injection system, and spray dryer absorber.

(Auth.: HAR §11-60.1-3, §11-60.1-5, §11-60.1-90, §11-60.1-140; 40 CFR §52.21)[1]

5. Operating Loads

a. In any 4-hour block arithmetic average, the mass-burn MWC boiler shall not operate at a load, based on steam or feedwater flow rate, greater than 110 percent of the highest 4-hour arithmetic average load as measured during the most recent dioxin/furan performance test that shows compliance with the emissions limit for MWC organics.

b. Attachment IIA, Special Condition No. C.5.a is not applicable during the dioxin/furan or mercury performance test, 2 weeks preceding the dioxin/furan or mercury performance test, and as provided in Attachment IIA, Special Condition No. C.5.c.

c. The mass-burn MWC boiler load limit may be waived in writing by the Department of Health for purpose of evaluating system performance, testing new technology or control technology, diagnostic testing, or related activities for the purpose of improving facility performance or advancing the state-of-the-art for controlling facility emissions.

(Auth.: HAR §11-60.1-3, §11-60.1-5, §11-60.1-90; 40 CFR §52.21, §60.53b(b))[1]

6. Baghouse Inlet Temperature

a. In any 4-hour block arithmetic average, the flue gas temperature at the inlet of the baghouse servicing the mass-burn MWC boiler shall not exceed 17 ^{O}C (approximately 30.6 ^{O}F if the temperature change is determined in ^{O}F) above the highest 4-hour arithmetic average temperature measured during the most recent dioxin/furan performance test demonstrating compliance with the emissions limit for MWC organics.

b. Attachment IIA, Special Condition No. C.6.a is not applicable during MWC boiler warm-up, start-up, shut-down, and malfunction, the dioxin/furan or mercury performance test, 2 weeks preceding the dioxin/furan or mercury performance test, and as provided in Attachment IIA, Special Condition No. C.6.c.

c. The flue gas temperature limit at the inlet of the baghouse servicing the mass-burn MWC boiler may be waived in writing by the Department of Health for purpose of evaluating system performance, testing new technology or control technology, diagnostic testing, or related activities for the purpose of improving facility performance or advancing the state-of-the-art for controlling facility emissions.

(Auth.: HAR §11-60.1-3, §11-60.1-5, §11-60.1-90; 40 CFR §52.21, §60.53b(c))[1]

7. Activated Carbon Mass Feed Rate

a. In any 8-hour block average, the activated carbon mass feed rate in pounds per hour for the activated carbon injection system shall equal or exceed the carbon mass feed rate established during the most recent performance test of the MWC boiler demonstrating compliance with the mercury and dioxin/furan emission limits specified in Attachment IIA, Special Condition No. C.8.d.

b. Attachment IIA, Special Condition No. C.7.a is not applicable during MWC boiler, warm-up, start-up, shut-down and malfunction, the dioxin/furan or mercury performance test, 2 weeks preceding the dioxin/furan or mercury performance test, and as provided in Attachment IIA, Special Condition No. C.7.c.

c. The activated carbon mass feed rate limit may be waived in writing by the Department of Health for purpose of evaluating system performance, testing new technology or control technology, diagnostic testing, or related activities for the purpose of improving facility performance or advancing the state-of-the-art for controlling facility emissions.

(Auth.: HAR §11-60.1-3, §11-60.1-5, §11-60.1-90; 40 CFR §52.21, §60.53b, §60.58b)[1]

8. Maximum Emission Limits

a. For each warm-up period, the mass-burn MWC boiler shall not exceed the following emission limits:

Pollutant	Maximum Emission Limit
SO_2	102 lbs
CO	72 lbs
NO_x	346 lbs

b. For each start-up period, the mass-burn MWC boiler shall not exceed the following emission limits:

Pollutant	Maximum Emission Limit
SO_2	98 lbs
CO	72 lbs
NO_x	346 lbs

c. For each shut-down period, the mass-burn MWC boiler shall not exceed the following emission limits:

Pollutant	Maximum Emission Limit
SO_2	98 lbs
CO	72 lbs
NO_X	346 lbs

d. Except during warm-up, start-up, shut-down, and malfunction, the mass-burn MWC boiler shall not exceed the following emission limits:

Pollutant		Maximum Emission Limit[1,2]
SO_2	Annual[3,9]	26 ppmdv
	24-hour[4,9]	26 ppmdv
	3-hour[5,9]	44 ppmdv
PM (filterable only)		12 mg/dscm
PM_{10} (filterable + condensable)		32 mg/dscm
$PM_{2.5}$ (filterable + condensable)		30 mg/dscm
NO_X	Annual[3]	90 ppmdv
	24-hour[6]	110 ppmdv
CO	4-hour[7]	100 ppmdv
	30-day[8]	80 ppmdv
VOC (as CH_4)		10 ppmdv
Ammonia (from ammonia slip)		15 ppmdv
Cadmium		10 ug/dscm
Lead		140 ug/dscm
Mercury[10]		28 ug/dscm
Fluorides (as HF)		3.5 ppmdv
H_2SO_4		5 ppmdv
HCl[11]		25 ppmdv
MWC Metals (as PM)		12 mg/dscm
Dioxin/Furans		13 ng/dscm

Table Notes:

1. Emission limits shall not be exceeded for the mass burn MWC boiler except for warm-up, start-up, shut-down, and malfunction.
2. All emission limits are referenced to 7% O_2, dry gas basis.
3. Annual arithmetic average emissions limit.
4. 24-hour daily geometric average emissions limit.
5. 3-hour block arithmetic average.
6. 24-hour daily arithmetic average.
7. 4-hour block arithmetic average.
8. 30-day rolling average.
9. Maximum emissions limit indicated or at least 80% reduction by weight or volume (whichever is less stringent).
10. Maximum emissions limit indicated, or at least 85% reduction by weight (whichever is less stringent).
11. Maximum emissions limit indicated or at least 95% reduction by weight or volume (whichever is less stringent).

e. For applicable limits specified in Attachment IIA, Special Condition Nos. C.8.b and C.8.c, a minimum concentration of 5.0% CO_2 and a maximum concentration of 14.0% O_2 may be substituted for the measured diluent gas concentration values during hours when the hourly average concentration of CO_2 is less than 5.0% CO_2 or the hourly average concentration of O_2 is greater than 14.0% O_2.

(Auth.: HAR §11-60.1-3, §11-60.1-5, §11-60.1-90; 40 CFR §52.21, §60.52b, Part 75 Appendix F)[1]

9. MWC Boiler Opacity Limits

The mass-burn MWC boiler shall not exhibit greater than 10 percent opacity for any six (6) minute averaging period, except as follows: during warm-up, startup, shutdown, or malfunction the mass-burn MWC boiler 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, §11-60.1-5, §11-60.1-32, §11-60.1-90; SIP §11-60-24; 40 CFR§52.21, §60.52b)[1,2]

10. Fugitive Emission Limits

a. The permittee shall take measures to control fugitive dust throughout the facility that includes sweeping access roads, maintaining enclosures for the ash conveying systems, conditioning the fly ash, and covering haul trucks. The Department of Health may at any time require the permittee to further abate fugitive dust emissions if an inspection indicates poor or insufficient control.

b. The permittee shall not cause or permit fugitive dust to become airborne without taking reasonable precautions and shall not cause or permit the discharge of visible emissions of fugitive dust beyond the lot line of the property boundary on which the emissions originate.

c. The permittee shall not cause to be discharged to the atmosphere visible emissions of combustion ash from an ash conveying system (including conveyor transfer points) in excess of 5% of the observation period (i.e., 9 minutes per 3 hour period).

d. The fugitive emission limit specified in Attachment IIA, Special Condition No. C.10.c applies to visible emissions discharged to the atmosphere from buildings or enclosures of an ash conveying system.

e. The fugitive emission limit specified in Attachment IIA, Special Condition No. C.10.c does not apply to:

1) Visible emissions discharged inside buildings or enclosures of an ash conveying system; and

2) During maintenance and repair of an ash conveying system.

(Auth.: HAR §11-60.1-3, §11-60.1-33, §11-60.1-90, §11-60.1-161; 40 CFR §52.21, §60.55b)[1]

11. Operation and Maintenance

The permittee must operate and maintain the mass-burn MWC boiler, air pollution control equipment and systems, and monitoring equipment in a manner consistent with good air pollution control practices for minimizing emissions at all times including warm-up, start-up, shut-down, and malfunction. Scheduled inspections and maintenance shall be conducted as recommended by the manufacturer and as needed.

(Auth.: HAR §11-60.1-3, §11-60.1-5, §11-60.1-90; 40 CFR §52.21)[1]

12. Alternate Operating Scenario

a. The mass burn MWC boiler may combust supplemental waste defined as discrete deliveries of waste components normally found in MSW, but delivered to the facility in quantities greater than those normally found in MSW. For combusting the supplemental waste, the permittee shall blend and mix the supplemental waste with MSW to ensure compliance with the permit limits specified in Attachment IIA, Special Condition Nos. C.8 and C.9. The following supplemental wastes and conditions apply to the alternate operating scenario:

1) Commodity Wastes – Waste generated by commercial operations or retail outlets and are accumulated as a result of material being off-specification, outdated, or deemed no longer fit for distribution, sale, or consumption. Commodity waste includes, but is not limited to, food products, health care products, cosmetics, and other store products.

2) Pharmaceutical Wastes – Waste that include prescription and non-prescription pharmaceuticals, controlled substances, and pharmaceutical waste regulated by the U.S. Drug Enforcement Agency (DEA). The waste is accumulated by pharmaceutical manufacturers, wholesalers, retailers, and hospitals or confiscated by law enforcement officers.

3) Manufacturing Wastes – Waste generated as a result of industrial and manufacturing processes. This category of waste would include floor sweepings, nonhazardous sludge, industrial filters (e.g., paint filters, air filters, etc.), adhesives, paints, and inks. No bulk liquid manufacturing wastes shall be accepted.

4) Oily Wastes – Include any of the following waste categories: (1) filters, (2) solid wastes containing “virgin oil”, solid wastes containing used oil. The oily waste streams include, but are not limited to, rags, paper towels, granular or fiber absorbents, fabric pads and booms. Booms and pads shall be prepared as

needed for processing. Commercial businesses such as spill cleanup companies and automobile repair shops generate oily wastes. Filters shall only be accepted if classified as nonhazardous, punctured, and drained of free liquids (40 CFR Part 261). Solid wastes containing "virgin oil" shall only be accepted if certified as a nonhazardous waste and if the waste contains no free liquid.

Solid wastes containing used oil are considered Hawaii Special Waste and shall be managed as such. The used oil waste shall also be managed in accordance with federal standards outlined in 40 CFR Part 279 (EPA Standards for the Management of Used Oil). Waste oil products containing equal to or greater than 2 ppm of polychlorinated biphenyls (PCBs) shall not be accepted.

5) Used Cooking Oil – Waste generated primarily by restaurants. The used cooking oil shall be transported and decanted by contractors to remove water and particles.

6) Triple-Rinsed Containers – Waste containers comprised primarily of high density polyethylene plastic (HDPE) and may include polystyrene and polyurethane containers. Containers used to store pesticides are the major component of this waste type. Prior to delivery, the containers shall be cut into halves. The containers shall also be triple rinsed according to federal regulation 40 CFR Part 261.7 or the definition set forth in the Hawaii Solid Waste Management Control Regulations (Title 11), whichever is less stringent. The supplier shall provide a statement certifying that the containers were triple-rinsed according to acceptable rinsing methods.

7) Shredded Tires and Automobile Shredder Residue – Tire and automobile shredder residue are both considered Hawaii Special Wastes and shall be managed as such. Shredded tires shall be blended with other MSW prior to charging the MWC boiler with the waste. Mitigation of effects from tire sulfur content shall be accomplished by materials management and blending. Automobile shredder residue consists of items such as foam rubber, seat covers, gaskets, plastics, etc. Prior to acceptance, the supplier must analyze representative samples of automotive shredder residue for hazardous constituents, such as PCBs and heavy metals. Automobile shredder residue shall be blended with MSW prior to charging the MWC boiler if the automobile shredder residue is determined to be nonhazardous and acceptable for processing.

8) Treated Medical Wastes – Treated medical wastes include sterilized waste generated from medical, veterinary, or other health care facilities and are considered Hawaii Special Wastes. Waste components include bandages, dressings, syringes, cultures, injectables, and infectious or pathological wastes that have been subject to sterilization (i.e., autoclave). The supplier is required to provide a statement that the treated medical wastes were sterilized appropriately.

9) Treated Foreign Wastes – Treated foreign wastes include sterilized solid waste generated by carriers leaving foreign ports and entering Hawaii and are

considered Hawaii Special Wastes. Waste components include airline carrier garbage or solid waste from sea-going vessels. Foreign waste must comply with regulations set forth by the U.S. Department of Agriculture. In addition, foreign waste shall be processed in a manner similar to that for the management and processing of medical wastes in accordance with Hawaii regulations. The supplier is required to provide a statement certifying that the treated foreign wastes were sterilized appropriately.

b. The terms and conditions under the alternate operating scenario shall meet all applicable requirements including all conditions of this permit.

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

13. Operator Certification

No later than six (6) months after initial start-up of the mass-burn MWC boiler and associated equipment, each chief facility operator and shift supervisor shall:

1) Obtain and maintain a current provisional operator certification from the American Society of Mechanical Engineers (ASME) QRO-1-1994, or from an equivalent certification program approved by the Department of Health; and

2) Have completed full certification or shall have scheduled a full certification exam with ASME QRO-1-1994, or with an equivalent certification program approved by the Department of Health.

(Auth.: HAR §11-60.1-3, §11-60.1-90, §11-60.1-161; 40 CFR §60.54b)[1]

14. Staff on Duty

One of the following persons must always be on duty for operating the mass-burn MWC boiler: a fully certified chief facility operator, a provisionally certified chief facility operator who is scheduled to take the full certification exam according to the schedule specified in Attachment IIA, Special Condition No. C.13(2), a fully certified shift supervisor, or a provisionally certified shift supervisor who is scheduled to take the full certification exam according to the schedule specified in Attachment IIA, Special Condition No. C.13(2). Attachment IIA, Special Condition C.14 shall take affect six (6) months after initial start-up of the mass-burn MWC boiler and associate equipment. If both the certified chief facility operator and certified shift supervisor are unavailable, a provisionally certified control room operator on-site at the municipal waste combustion unit may fulfill the certified operator requirement using the following guidelines:

1) When the certified chief facility operator and certified shift supervisor are both off-site for twelve (12) hours or less, and no other certified operator is on-site, the provisionally certified control room operator may perform the duties of the certified chief facility operator or certified shift supervisor.

2) When the certified chief facility operator and certified shift supervisor are off site for more than twelve (12) hours, but for two weeks or less, and no other certified operator is on site, the provisionally certified control room operator may perform the duties of the certified chief facility operator or certified shift supervisor without notice to, or approval by the Department of Health. However, the permittee must record the period when the certified chief facility operator and certified shift supervisor are off-site and include that information in the annual report required by 40 CFR §60.59(g)(5).

3) When the certified chief facility operator and certified shift supervisor are off site for more than two weeks, and no other certified operator is on-site, the provisionally certified control room operator may perform the duties of the certified chief facility operator or certified shift supervisor without approval by the Department of Health. However, the permittee shall take the following actions:

   a) Notify the Department of Health in writing. In the notice, state what caused the absence and what actions are being taken to ensure that a certified chief facility operator or certified shift supervisor is on-site as expeditiously as practicable.

   b) Submit a status report and corrective action summary to the Department of Health every four weeks following the initial notification. If the Department of Health provides notice that the status report or corrective action summary is disapproved, the mass-burn MWC boiler may continue operation for ninety (90) days, but then must cease operation. If corrective actions are taken in the ninety-day (90-day) period such that the Department of Health withdraws the disapproval, municipal waste combustion unit operation may continue.

4) A provisionally certified operator who is newly promoted or recently transferred to a shift supervisor position or a chief facility operator position at the municipal waste combustion unit may perform the duties of the certified chief facility operator or certified shift supervisor without notice to, or approval by the Department of Health for up to six (6) months before taking the ASME QRO certification exam.

(Auth.: HAR §11-60.1-3, §11-60.1-90, §11-60.1-161; 40 CFR §60.54b)[1]

15. Operator Training

a. All chief facility operators, shift supervisors, and control room operators at the facility must complete the EPA MWC operator training course, or equivalent operator training course with the approval from the Department of Health, no later than six (6) months after start-up of the MWC boiler.

b. The permittee shall develop and update on a yearly basis a site-specific operating manual that shall, at a minimum, address the following elements of the MWC boiler:

1) A summary of the applicable standards under 40 CFR Part 60, Subpart Eb;
2) A description of the basic combustion theory applicable to an MWC boiler;
3) Procedures for receiving, handling, and feeding MSW;
4) MWC boiler warm-up, start-up, shut-down, and malfunction procedures;
5) Procedures for maintaining proper combustion air supply levels;
6) Procedures for operating the mass-burn MWC boiler within the standards of 40 CFR Part 60, Subpart Eb;
7) Procedures for responding to periodic upset or off-specification conditions;
8) Procedures for minimizing particulate carryover;
9) Procedures for handling ash;
10) Procedures for monitoring the mass-burn MWC boiler emissions; and
11) Reporting and recordkeeping procedures.

c. The permittee shall establish an initial and annual training program pursuant to 40 CFR§60.54b(f) to review the operating manual with each person who has responsibilities affecting the operation of the mass-burn MWC boiler, but not limited to, chief facility operators, shift supervisors, control room operators, ash handlers, maintenance personnel, and crane/load handlers.

d. The operating manual required by Attachment IIA, Special Condition No. C.15.b shall be kept in a readily accessible location for all persons required to undergo training.

(Auth.: HAR §11-60.1-3, §11-60.1-5, §11-60.1-90, §11-60.1-161; 40 CFR §60.54b)[1]

16. Right to Entry

The Director of the Department of Health, Regional Administrator of the EPA, Region 9 and/or their authorized representatives, upon the presentation of credentials, shall be permitted to:

1) Enter upon the premises where the source is located or which any records are required to be kept under the terms and conditions of the permit;
2) Have access to and copy, at reasonable times, records required to be kept under the terms and conditions of the permit;
3) Inspect any equipment, operation, or method required in the permit; and
4) Sample emissions from the source.

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

Section D. Monitoring and Record keeping Requirements

1. Records

All records, including support information, shall be maintained for at least five (5) years from the date of the measurement, monitoring (e.g., original strip chart or computer CEM

recordings), performance test, system performance evaluation, calibration checks, adjustments, inspections, maintenance, reports, or applications. Support information includes but is not limited to all calibration, maintenance, inspection, and repair records, and copies of all reports required by this permit. These records shall be true, accurate, and maintained in a permanent form suitable for inspection and shall be made available to the Department of Health or its representative upon request.

(Auth.: HAR §11-60.1-3, §11-60.1-5, §11-60.1-81, §11-60.1-90; 40 CFR §52.21)[1]

2. Warm-ups, Start-ups, Shut-downs, and Malfunctions

The permittee shall record the date, duration in hours, and corresponding operating load, based on steam or feed-water flow rate in pounds per hour, for each warm-up, start-up, shut-down, and malfunction period of the mass-burn MWC boiler. For each malfunction period, the permittee shall record the description and time of the malfunction.

(Auth.: HAR §11-60.1-3, §11-60.1-5, §11-60.1-11, §11-60.1-90; 40 CFR §52.21)[1]

3. Continuous Emission Monitoring System (CEMS)

a. The permittee shall install, calibrate, maintain, and operate one or more CEMSs for the exhaust stream of the mass-burn MWC boiler for measuring NO_X (as NO_2), SO_2, CO, and O_2 (or carbon dioxide (CO_2)). Compliance with the applicable SO_2 emission limit shall be determined using CEMS outlet data for the emissions concentration limit, or CEMS inlet and outlet data for the percent reduction SO_2 emissions limit. Compliance with the applicable emission limits shall be determined as follows:

1) Hourly averages shall be obtained for 90 percent of the operating hours per calendar quarter and 95 percent of the operating days per calendar year.

2) At least two (2) data points per hour shall be used to calculate each 1-hour arithmetic average.

3) Each 1-hour arithmetic average for NO_X, SO_2, and CO shall be corrected to 7 percent oxygen on an hourly basis using the 1-hour arithmetic average of O_2 (or CO_2) CEMS data.

4) The 1-hour arithmetic averages required to determine compliance with the applicable emissions limit for NO_X, SO_2, and CO shall be expressed in parts per million corrected to 7 percent oxygen (dry basis) and used to calculate the percent reductions and emission concentrations as applicable for annual, 24-hour, 4-hour, and 3-hour averaging periods. The 1-hour arithmetic averages shall be calculated using data points required under §60.13(e)(2) of 40 CFR Part 60, Subpart A.

5) All valid CEMS data shall be used in calculating average emission concentrations and percent reductions even if the minimum CEMS data requirements specified in Attachment IIA, Special Condition No. D.3.a(1) are not met.

6) Procedures under 40 CFR §60.13 shall be followed for installation, evaluation, and operation of the CEMS.

7) The CEMS shall be operated according to Performance Specification 2 in 40 CFR Part 60, Appendix B for NO_X and SO_2 and Performance Specification 4A in 40 CFR Appendix B for CO. Guidance for relative accuracy criterion for the SO_2 and CO CEMS is provided in 40 CFR §60.58b(e)(12) and 40 CFR §60.58b(i)(3)(ii), respectively. Applicable procedures and methods for operating the CEMS are specified as follows:

   a. During each relative accuracy test audit (RATA) of the CEMS, the NO_X, SO_2, CO, and O_2 (or CO_2) data shall be collected concurrently (or within a 30-to-60 minute period) by both CEMS and the test methods as specified as follows:

      1) For NO_X, EPA Reference Method 7, 7A, 7C, 7D, or 7E shall be used.
      2) For SO_2, EPA Reference Method 6, 6A, 6C, or an alternative ASME PTC-19-1—1981-Part 10 method shall be used.
      3) For CO, EPA Reference Method 10, 10A, or 10B shall be used.
      4) For O_2 (or CO_2) EPA Reference Method 3, 3A, 3B, or an alternative ASME PTC-19-10-1981-Part 10 shall be used.

   b. The CEMS span value shall be 125 percent of the maximum estimated hourly potential NO_X and CO emissions of the MWC boiler.

   c. The CEMS span value shall be 125 percent of the maximum estimated hourly potential SO_2 emissions of the MWC boiler at the inlet of the spray dryer absorber. The CEMS span value shall be 50 percent of the maximum estimated hourly potential SO_2 emissions of the MWC boiler at the outlet of the spray dryer absorber.

   d. Quarterly RATAs and daily calibration drift (CD) tests shall be performed in accordance with 40 CFR Part 60, Appendix F. Successive quarterly RATAs shall occur no closer than two months apart. The RATA must be conducted at least once every four calendar quarters.

   e. When continuous emissions data are not obtained because of CEMS breakdowns, repairs, calibration checks, and zero and span adjustments, emissions data shall be obtained using other monitoring systems as approved by the EPA or EPA Reference Method 19 for NO_X and SO_2 to provide, as necessary, the valid emissions data as required by Attachment IIA, Special Condition No. D.3.a(1).

   f. The permittee may request that compliance with the NO_X, SO_2, and CO emission limit be determined using carbon dioxide measurements corrected to 7 percent oxygen. The relationship between O_2 and CO_2 levels for the MWC boiler shall be established as specified in 40 CFR §60.58b(b)(6).

(Auth.: HAR §11-60.1-3, §11-60.1-90, §11-60.1-161; 40 CFR §52.21, §60.58(b), §64.3(b)(4)(ii))[1]

4. Continuous Emissions Rate Monitoring System (CERMS)

   a. The permittee shall install, calibrate, maintain, and operate a CERMS to accurately measure NO_X, SO_2, and CO emissions to determine compliance with the emission limits specified in Attachment IIA, Special Condition Nos. C.8.a, C.8.b, and C.8.c.

   b. Annual RATAs shall be performed in accordance with Performance Specification 6 of 40 CFR, Part 60 Appendix B to verify the volumetric flow rate.

   (Auth.: HAR §11-60.1-3, §11-60.1-5, §11-60.1-90, §11-60.1-161; 40 CFR §52.21)[1]

5. Continuous Opacity Monitoring System (COMS)

   The permittee shall install, calibrate, maintain, and operate a COMS for the exhaust stream of the mass-burn MWC boiler for measuring opacity as follows:

   1) The output of the COMS shall be recorded on a 6-minute average basis.

   2) The COMS shall be installed, evaluated, and operated in accordance with 40 CFR Part 60, §60.13.

   3) The COMS shall be in conformance with Performance Specification 1 in 40 CFR Part 60, Appendix B.

   (Auth.: HAR §11-60.1-3, §11-60.1-90, §11-60.1-161; 40 CFR §52.21, §60.58(b))[1]

6. MWC Boiler Load Level

   a. The permittee shall install, calibrate, maintain, and operate a steam flow meter or a feedwater flow meter to measure steam or feedwater flow in pounds per hour (or thousand pound per hour) on a continuous basis and record the output of the monitor. Steam or feedwater flow shall be calculated in 4-hour block arithmetic averages.

   b. The method included in the "American Society of Mechanical Engineers Power Test Codes: Test Code for Steam Generating Units, Power Test Code 4.1 – 1964 (R1991)" Section 4 (incorporated by reference, see §60.17 of 40 CFR Part 60, Subpart A) shall be used for calculating the steam or feedwater flow required by Attachment IIA, Special Condition No. D.5.a. The recommendations in "American Society of Mechanical Engineers Interim Supplement 19.5 on Instruments and Apparatus: Application, PartII of Fluid Meters, 6th Edition (1971)", Chapter 4 (incorporated by reference – see §60.17 of 40 CFR Part 60, Subpart A) shall be followed for design, construction, installation, calibration, and use of nozzles and orifices, except that measurement devices such as flow nozzles and orifices are not required to be recalibrated after they are installed.

c. All signal conversion elements associated with steam or feedwater flow measurements must be calibrated according to the manufacturer's instructions before each dioxin/furan performance test, and at least once per year.

(Auth.: HAR §11-60.1-3, §11-60.1-90, §11-60.1-161; 40 CFR §52.21, §60.58b)

7. Combustion and Baghouse Inlet Temperature

The permittee shall install, operate, maintain, and calibrate a CMS to measure and record the mass-burn MWC boiler's flue gas temperature (^{O}F) immediately downstream of the MWC boiler superheater and the temperature at the inlet of the baghouse servicing the MWC boiler for purposes of determining compliance with the requirements of Attachment IIA, Special Condition Nos. C.3 and C.6, respectively. The MWC boiler combustion temperature and baghouse inlet temperature shall be determined in 4-hour arithmetic averages.

(Auth.: HAR §11-60.1-3, §11-60.1-90, §11-60.1-161; 40 CFR §52.21, §60.58b(i)(7), §60.58b(i)(9))[1]

8. Carbon Mass Feed Rate

a. The permittee shall record the average carbon mass feed rate in pounds per hour estimated during the initial mercury and dioxin/furan performance tests and all subsequent annual mercury and dioxin/furan performance tests, with supporting calculations. The record of average carbon mass feed rate shall be based on carbon injection system operating parameters such as screw feeder speed, hopper volume, hopper refill frequency, or other parameters appropriate to the feed system being employed.

b. The permittee shall estimate the total carbon usage of the plant for each calendar quarter by the following independent methods:

1) The weight of carbon delivered to the plant.

2) Estimate the average carbon mass feed rate in pounds per hour for each hour of operation, based on the carbon injection system operating parameters, and sum the results for the total number of hours of operation during the calendar quarter.

c. During operation of the mass-burn MWC boiler, the permittee shall record the activated carbon injection system operating parameters that are the primary indicator(s) of carbon mass feed rate (e.g., screw feeder setting). The carbon mass feed rate as indicated by the recorded operating parameter(s), shall be determined over an 8-hour block period to determine the 8-hour block average pound per hour carbon mass feed rate.

d. The permittee shall record the calendar dates when the average carbon mass feed rate recorded under Attachment IIA, Special Condition No. D.8.b was less than the hourly carbon feed rate estimated during the most recent performance test that shows compliance with the mercury and dioxin/furan emission limits, with reasons for such feed rates and a description of corrective actions taken.

e. The permittee shall record the calendar dates when the activated carbon injection system operating parameter(s) as recorded in Attachment IIA, Special Condition No. D.8.c are below the carbon feed rate estimated during the most recent performance test that shows compliance with the mercury and dioxin/furan emissions limits, with reasons for such occurrences and a description of corrective actions taken.

f. The permittee shall use a pneumatic injection pressure or other carbon injection system operational indicator to provide additional verification of proper carbon injection system operation. The operational indicator shall provide an instantaneous visual and/or audible alarm to alert the operator of a potential interruption in the carbon feed that would not normally be indicated by direct monitoring of carbon mass feed rate (e.g., continuous weight loss feeder) or monitoring of the carbon system operating parameter(s) that are the indicator(s) of carbon mass feed rate (e.g., screw feeder speed). The carbon injection system operational indicator used to provide additional verification of carbon injection system operation, including basis for selecting the indicator and operator response to the indicator alarm, shall be included in section of the operating manual reference in Attachment IIA, Special Condition No. C.15.b(6).

(Auth.: HAR §11-60.1-3, §11-60.1-5, §11-60.1-90, §11-60.1-161; 40 CFR §52.21 §60.58b(m), §60.59b(d)(4)(i), §60.59b(d)(14), §60.59b(d)(15))[1]

9. Visible Emissions

Although not required at this time, the Department of Health, if so desires, may at any time require the permittee to conduct monthly visible emissions monitoring to determine compliance with the fugitive emissions limit for ash conveying systems as specified in Attachment IIA, Special Condition No. C.10.c.

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

10. Lime Injection System

The permittee shall install, operate, and maintain a CMS to determine the gallon per minute lime slurry feed rate for the spray dryer absorber for purposes of the requirements specified in Attachment IIA, Special Condition No. D.11.a.ii.

(Auth.: HAR §11-60.1-3, §11-60.1-5, §11-60.1-90; 40 CFR §52.21)

11. Compliance Assurance Monitoring (CAM)

The mass-burn MWC boiler is subject to the following CAM requirements to ensure compliance with the emission limits specified in Attachment IIA, Special Condition No. C.8.d for PM, PM_{10}, $PM_{2.5}$, MWC metals, fluorides, and H_2SO_4:

a. The permittee shall follow the enclosed CAM plan for fluorides and H_2SO_4 and record excursions to ensure compliance with the emissions limit for fluorides and H_2SO_4 specified in Attachment IIA, Special Condition No. C.8.d. Excursions are incidences when:

i. The SO_2 emission, as measured by the CEMS, exceeds 26 ppmdv @ 7% O_2 over any 24-hour daily geometric average or is less than or equal to 80% reduction over any 24-hour daily geometric average;

ii. The one hour average lime slurry feed rate, as measure by the CMS, is less than the lime slurry feed rate in gallons per minute measured by the most recent performance test that demonstrates compliance with the applicable emission limits for fluorides and H_2SO_4.

b. The permittee shall follow the enclosed CAM plan for PM, PM_{10}, $PM_{2.5}$, and MWC metals to ensure compliance with the emissions limit specified for particulate and MWC metals in Attachment IIA, Special Condition No. C.8.d. Excursions for particulate and MWC metals are incidences when the opacity during normal boiler operation (i.e., boiler operation except for warm-up, start-up, shutdown, and malfunction), as measured by the COMS, exceeds 7% on a one hour average basis for three consecutive hours.

c. The Department of Health reserves the right to require additional monitoring in accordance with Attachment IIA, Special Condition No. D.11.g if a failure to achieve compliance with the applicable emissions is identified for PM, PM_{10}, $PM_{2.5}$, MWC metals, fluorides, and H_2SO_4.

d. Except for monitoring malfunctions, associated repairs, required quality assurance or control activities (including as applicable, calibration checks and required zero and span adjustments), warm-up, start-up, shut-down, and malfunction, the permittee shall conduct all monitoring in continuous operation at all times that the mass-burn MWC boiler is operating. Data recorded during monitoring malfunctions, associated repairs, and required quality assurance control activities shall not be used for purposes of reporting excursions, including data averages and calculations, or for fulfilling minimum data availability requirement. The permittee shall use all the data collected during all other periods in assessing the operation of the control device and associated control system. A monitoring malfunction is any sudden, infrequent, not reasonably preventable failure of the monitoring to provide valid data. Monitoring failures that are caused in part by poor maintenance or careless operation are not malfunctions.

e. Upon detecting an excursion, the permittee shall restore operation of the mass-burn MWC boiler (including control device and associated capture system) to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions. The response shall include minimizing the period of any start-up, shut-down, or malfunction and taking any necessary corrective actions to restore normal operation and prevent the likely recurrence of the cause of the excursion (other than those caused by excused start-up or shut-down conditions). Such actions may include initial inspection and evaluation, recording that operations returned to normal without operator action (such as through response by a computerized distribution control system), or any necessary follow-up actions to return operation to within the applicable indicator range that would not cause an excursion as specified in Attachment IIA, Special Condition Nos. D.11.a and D.11.b.

f. Determination of whether the permittee has used acceptable procedures in response to an excursion will be based on information available, which may include but is not limited to performance testing, monitoring results, review of operation and maintenance procedures and records, and inspection of the control device, associated capture system, and the process.

g. If the permittee identifies a failure to achieve compliance with an emissions limit or standard for which monitoring did not provide an indication of an excursion or exceedance while providing valid data, or the results of performance testing document a need to modify the existing indicator ranges or designated conditions, the permittee shall promptly notify the Department of Health, and if necessary, submit a permit modification to address the necessary monitoring changes. Such a modification may include, but is not limited to, reestablishing indicator ranges or designated conditions, modifying the frequency of conducting monitoring and collecting data, or the monitoring of additional parameters.

h. The Department of Health may require the permittee to develop a quality improvement plan (QIP) in accordance with 40 CFR §64.8.

(Auth.: HAR §11-60.1-3, §11-60.1-90, §11-60.1-161; 40 CFR §52.21, §64.4, §64.7, §64.8)[1]

12. Exceedances and Excursions

Records shall be kept on all exceedances and excursions identified by the CEMS, CERMS, COMS, and CMS equipment and monthly monitoring. These records shall include reasons for such exceedances, a description of corrective actions taken, including the date, time, and duration of an exceedance and/or excursions when:

1) The MWC boiler's combustion temperature is below that specified in Attachment II, Special Condition No. C.3;
2) Operating loads are more than 110% of the highest load established pursuant to Attachment IIA, Special Condition No. C.5;

3) The baghouse inlet temperature is below that specified in Attachment II, Special Condition No. C.6;
4) The SO_2, NO_X, and CO emission rates, as applicable, are not in compliance with that specified in Attachment IIA, Special Condition Nos. C.8 and D.11.a.i;
5) The opacity of the MWC boiler is greater than that specified in Attachment IIA, Special Condition No. C.11.b during normal boiler operation; and
6) The lime slurry rate is below that specified in Attachment IIA, Special Condition No. D.11.a.ii.

(Auth.: HAR §11-60.1-3, §11-60.1-90, §11-60.1-161; 40 CFR §52.21, §60.59b(d)(3))[1]

13. Insufficient CMS Data

Records shall be kept of all periods of time when CMS data was not obtainable for SO_2, NO_X, CO, and O_2 (or CO_2) emission limits, steam or feedwater flow rates for MWC boiler load levels, baghouse inlet control temperatures, MWC boiler combustion temperatures, and lime slurry feed rates. These records shall include the reasons for not obtaining the data and a description of corrective actions taken.

(Auth.: HAR §11-60.1-3, §11-60.1-90, §11-60.1-161; 40 CFR §52.21 and §60.59b(d)(6))[1]

14. CMS Data Exclusion

Records shall be kept on all periods of time when CMS data was excluded from the calculation of NO_X, SO_2, CO, and O_2 (or CO_2) emission concentrations, steam or feedwater flow rates for MWC boiler load levels, baghouse inlet control temperatures, MWC boiler combustion temperatures, lime slurry feed rates, and the reasons for excluding the data. The CMS data excluded shall be available for submittal to the Department of Health or review on site by the U.S. EPA or State Inspector.

(Auth.: HAR §11-60.1-3, §11-60.1-90, §11-60.1-161; 40 CFR §52.21 and §60.59b(d)(7))[1]

15. CD Testing and RATA

a. Records shall be kept on all daily CD tests and quarterly RATAs for the CEMS.

b. Records shall be kept on all annual RATAs for the CERMS.

(Auth.: HAR §11-60.1-3, §11-60.1-5, §11-60.1-90, §11-60.1-161; 40 CFR §52.21 and §60.59b(d)(8))[1]

16. Performance Tests

Records shall be kept on all performance test reports documenting the results. For each dioxin/furan performance test, the maximum MWC boiler load and baghouse inlet temperature shall be recorded. For each mercury and dioxin/furan performance test, the

mass carbon feed rate of the activated carbon injection system shall be recorded. For each fluoride test the lime slurry injection rate of the spray dryer absorber shall be recorded.

(Auth.: HAR §11-60.1-3, §11-60.1-5, §11-60.1-90, §11-60.1-161; 40 CFR §52.21 and §60.59b(d)(9))[1]

17. Certifications and Training

Records shall be kept showing the names of the MWC chief facility operator, shift supervisors, and control room operators who: (1) have been provisionally certified by ASME, or from an equivalent certification program approved by the Department of Health and the dates of initial and renewal certifications and documentation of the current certification, (2) have been certified by ASME or an equivalent certification program approved by the Department of Health including the dates of initial and renewal certifications and documentation of current certification; and (3) have completed the EPA MWC operator training course, or equivalent MWC operator training course approved by the Department of Health including documentation of training completion.

(Auth.: HAR §11-60.1-3, §11-60.1-90, §11-60.1-161; 40 CFR §60.59b(d)(12))[1]

18. Certified Operator Off-Site

The permittee shall keep records in accordance with 40 CFR §60.59b(d)(12)(iv) of when the certified operator is temporarily off-site.

(Auth.: HAR §11-60.1-3, §11-60.1-90, §11-60.1-161; 40 CFR §60.59b(d)(12))[1]

19. Operating Manual Reviews

The permittee shall keep records showing the names of persons who have completed review of the operating manual as required by Attachment IIA, Special Condition No. C.15.b including the date of the initial review and subsequent annual reviews.

(Auth.: HAR §11-60.1-3, §11-60.1-90, §11-60.1-161; 40 CFR §60.59b(d)(13))[1]

20. Alternate Operating Scenarios

a. The permittee shall contemporaneously with making a change from one operating scenario to another in accordance with Attachment IIA, Special Condition No. C.12., record in a log at the permitted facility the scenario under which it is operating.

b. The permittee shall maintain all records corresponding to the implementation of an alternate operating scenario specified in Attachment IIA, Special Condition No. C.12.

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

21. Fuel Consumption

    a. A non-resetting fuel flow meter shall be installed, operated, and maintained for the mass-burn MWC boiler for the continuous and permanent recording of the number of gallons of fuel oil No. 2 and used cooking oil auxiliary fuels fired by the boiler. The non-resetting fuel flow meter shall not allow the manual resetting or other manual adjustments of the meter readings. The installation of any new non-resetting meters or the replacement of any existing non-resetting meters shall be designed to accommodate a minimum of five (5) years of equipment operation, considering any operational limitations, before the meter returns to a zero reading.

    b. The following information shall be recorded to determine compliance with the auxiliary fuel consumption limits specified in Attachment IIA, Special Condition Nos. C.1.b and C.1.c:

        1) The date of the meter readings;
        2) Beginning meter readings for each hour;
        3) Total hourly auxiliary fuel consumption for each fuel and total combined auxiliary fuel consumption each hour;
        4) Beginning meter readings for each month;
        5) Total monthly auxiliary fuel consumption for each fuel and total combined auxiliary fuel consumption each month; and
        6) Total combined auxiliary fuel consumption on a rolling twelve-month (12-month) basis.

    c. Records shall be maintained on the sulfur content (percent by weight) of the fuel oil No. 2 auxiliary fuel fired by the mass-burn MWC boiler. Fuel sulfur content may be demonstrated by providing the supplier's specification sheet for the fuel received.

    d. Records shall be maintained on the tons per year MSW and supplemental waste fired by the mass-burn MWC boiler. Records to determine the amount of waste fired may include delivery truck records, storage facility records, and records on steam flow rate that can be correlated with the tons of waste fired.

    (Auth.: HAR §11-60.1-3, §11-60.1-5, §11-60.1-11, §11-60.1-90; 40 CFR §52.21)[1]

22. Post-Construction Ambient Air Quality Monitoring

    a. The permittee shall submit a post construction air ambient quality monitoring plan and install, operate, and maintain an ambient air quality monitoring station to measure ambient air concentrations of criteria pollutants such as SO_2, NO_2, CO, PM, PM_{10}, $PM_{2.5}$, and ozone, air toxic pollutants such as HCl, cadmium, lead, mercury, and fluorides, and other pollutants such as H_2SO_4, and ammonia. The monitoring period shall commence **within sixty (60) days after** the completion of construction, or if the monitoring plan is disapproved, the monitoring period shall commence within sixty (60) days after approval and shall continue for a minimum of one (1) year. The data recovery should be at least 80 percent of the data possible for each air pollutant during

the monitoring period. The monitoring station shall continue to operate and record data until such time that written approval is obtained from the Department of Health authorizing the termination of its operation.

b. The permittee shall submit a post construction meteorological monitoring plan and after approval from the Department of Health, install, operate, and maintain a meteorological monitoring station to monitor and record data. Data shall include horizontal wind speed and direction, and temperature. The meteorological station is intended to gather data other than data at 10 meters elevation, and the data be used in conjunction with the data from the ambient air monitoring station. Each month's data recovery should be at least 80 percent of the data possible for each variable measured during the monitoring period. An alternative meteorological monitoring station may be used in lieu of the required monitoring station provided that approval of the monitoring station is obtained from the Department of Health. The monitoring period shall commence **within sixty (60) days** after the completion of construction, or if the monitoring plan is disapproved, the monitoring period shall commence within sixty (60) days after approval and shall continue for a minimum of one (1) year. The monitoring station shall continue to operate and record data until such time that written approval is obtained from the Department of Health authorizing the termination of its operation.

(Auth.: HAR §11-60.1-3, §11-60.1-13, §11-60.1-90, §11-60.1-143; 40 CFR §52.21)[1]

23. Maintenance

An inspection, maintenance, and repair log shall be maintained for the mass-burn MWC boiler, air pollution control equipment and systems, and monitoring equipment. The permittee shall submit, for approval by the Department of Health, maintenance and inspection procedures for the boiler and associated air pollution control equipment prior to commencement of commercial operation.

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

Section E. Notification and Reporting Requirements

1. Standard Condition Reporting

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

a. Anticipated date of initial start-up, actual date of construction commencement, and actual date of start-up;
b. Intent to shut-down air pollution control equipment for necessary scheduled maintenance;
c. Emissions of air pollutants in violation of HAR, Chapter 11-60.1 or this permit (excluding technology-based emission exceedences due to emergencies); and

d. 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; 40 CFR §52.21, SIP §11-60-10 and §11-60-16)[1]

2. Deviations

The permittee shall report in writing **within five (5) working days** any deviations from permit requirements, including those attributed 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 performance testing, or more frequent monitoring, or could trigger implementation of a corrective action plan.

(Auth.: HAR §11-60.1-3, §11-60.1-15, §11-60.1-16, §11-60.1-90, 40 CFR §52.21)[1]

3. Malfunction

The Department of Health shall be notified by telephone within 48 hours following any failure of air pollution control equipment, process equipment, or of a process to operate in a normal manner which results in an increase in emissions above any allowable emissions limit. In addition, the Department of Health shall be notified in writing within five (5) days of any such failure. The notification shall include a description of the malfunctioning equipment or abnormal operation, the date of the initial failure, the period of time over which emissions were increased due to the failure, the cause of the failure, the estimated resultant emissions in excess or those allowed under Attachment IIA, Special Condition No. C.8 and the methods utilized to restore normal operations. Compliance with this malfunction notification shall not excuse or otherwise constitute a defense to any violations of this permit or of any law or regulations which such malfunction may cause.

(Auth.: HAR §11-60.1-3, §11-60.1-5, §11-60.1-90, §11-60.1-161, 40 CFR §52.21)[1]

4. Excess Emissions and Monitor Downtime

The permittee shall submit to the Department of Health and U.S. EPA Region 9, reports of excess emissions and monitor downtime in accordance with 40 CFR, Part 60, §60.7(c). A semi-annual **excess emissions and monitor systems performance report** shall be submitted by **August 1** following the first calendar half of the year and by **February 1** following the second calendar half of the year. Each excess emissions and monitoring system report shall be submitted as a paper copy, post marked on or before the submittal date. Excess emissions shall be for all periods of operation of the mass-burn MWC boiler, except as specified in Attachment IIA, Special Condition No. C.2.d. The excess emissions and the monitoring system performance report required under §60.7(c) shall include the following:

1) Identification of each period of excess emissions for all:

i. Annual average, 24-hour daily geometric average, and 3-hour block average SO_2 emission concentrations;
ii. Percent reductions in SO_2 emission concentrations;
iii. Annual average and 24-hour daily arithmetic average NO_X emission concentrations;
iv. 4-hour block arithmetic CO emission concentrations;
v. 4-hour block arithmetic average MWC boiler load levels;
vi. Pounds of SO_2, CO, and NO_X emissions over periods of warm-up, start-up, and shut-down periods;
vii. Baghouse inlet temperatures;
Viii. MWC Boiler combustion temperatures; and
ix. MWC Opacity.

2) The magnitude of excess emissions computed in accordance with 40 CFR §60.13(h), any concurrent data, any conversion factors used, and the date and time of commencement and completion of each time period of excess emissions, and corrective actions taken.

3) Specific identification of each period of excess emissions that occurs during warm-up, start-ups, shut-downs, and malfunctions of the MWC boiler systems. The nature and cause of any malfunction (if known) and the corrective action taken or preventative measures taken.

4) The date and time identifying each period during which the CEMS, CERMS, COMS, and other CMS equipment were inoperable except for zero and span checks if applicable. The nature of each system repair shall be described.

5) The report shall state if no excess emissions have occurred. The report shall also state if the CEMS, CERMS, COMS and other CMS equipment were operated properly during the period and whether the CEMS, CERMS, COMS, and other CMS equipment were subject to any repairs or adjustments except for zero and span checks of the CEMS.

The **excess emissions and monitoring systems performance report** shall be submitted with the attached **Excess Emissions and Monitoring System Performance Summary Report Form** referenced in Attachment IIA, Special Condition No. E.5. One summary report shall be submitted with the excess emissions and monitoring system performance report for each pollutant monitored.

(Auth.: HAR §11-60.1-3, §11-60.1-5, §11-60.1-90, §11-60.1-161, 40 CFR §52.21)[1]

5. Semi-annual Summary Report

The semi-annual summary report specified in Attachment IIA, Special Condition No. E.4 shall provide a summary of data collected for all pollutants and parameters which includes the following information:

1) A list of emission concentration of PM, PM_{10}, $PM_{2.5}$, SO_2, NO_X, CO, VOC, ammonia, cadmium, lead, mercury, fluoride, H_2SO_4, HCl, MWC acid gases, MWC metals, and dioxin/furan, the percent opacity, and fugitive ash emission levels achieved during the most recent performance test of the mass-burn MWC Boiler.

2) A summary of the test report and corrective actions taken if there were any exceedances during the most recent annual performance test of the MWC boiler for emission concentrations of PM, PM_{10}, $PM_{2.5}$, SO_2, NO_X, CO, VOC, ammonia, cadmium, lead, mercury, fluorides, H_2SO_4, HCl, MWC acid gases, MWC metals, and dioxin/furan, opacity, and visible emissions of fugitive ash from an ash conveying system.

3) A list of the highest emission level recorded by the CEMS for SO_2, NO_X, CO, for periods of warm-up, start-up, and shut-down and all applicable pollutant averaging periods as specified in Attachment IIA, Special Condition No. C.8.

4) A list of the highest emission level recorded by the COMS for opacity from the gas stream of the mass-burn MWC boiler.

5) A list of the highest MWC boiler unit load level and baghouse inlet temperature recorded by the CMS(s).

6) A list of the lowest MWC Boiler combustion temperatures and lime slurry feed rates recorded by the CMS(s).

7) Information on the carbon injection system operating parameters that are the primary indicator(s) of carbon mass feed rate during the most recent performance test of the MWC boiler to determine compliance with mercury and dioxin/furan emission limits. For each operating date reported, the semi-annual report shall include the carbon mass feed rate data recorded pursuant to 40 CFR §60.59b (d)(4)(iii).

8) Information on the 4-hour arithmetic average load level of the MWC boiler during the most recent performance test to determine compliance with the dioxin/furan emissions limit.

9) Information on the 4-hour arithmetic average lime slurry feed rate during the most recent performance test to determine compliance with emission limits for fluorides and H_2SO_4.

10) The total number of hours per calendar quarter and hours per calendar year that valid data for MWC boiler SO_2, NO_X, and CO emission concentrations, MWC boiler load, baghouse inlet temperature, MWC boiler combustion temperature, and lime slurry feed rate were not obtained including reasons for not obtaining the data and a description of corrective actions taken.

11) The total number of hours that data for MWC boiler SO_2, NO_X, and CO emission concentrations, MWC boiler load, baghouse inlet temperature, and MWC boiler combustion temperature were excluded from the calculation of average emission concentrations or parameters, including the reasons for excluding the data.

12) The summary of the data reported under Attachment IIA, Special Condition No. E.5 shall also provide the types of data specified in Attachment IIA, special Condition Nos. E.5(1) through E.5(11) for the calendar year preceding the year being reported in order to provide a summary of the performance of the facility over a 2-year period.

13) The summary of data shall highlight any emission or parameter levels that did not achieve the emission or parameter limits specified by the permit.
14) Documentation of periods when all certified chief facility operators and certified shift supervisors are off-site for more than 12 hours.

(Auth.: HAR §11-60.1-3,§11-60.1-5, §11-60.1-90, §11-60.1-161; 40 CFR §52.21, §60.59(g), §60.59(h))

6. Performance Testing and Demonstration

Notification of the following for the MWC boiler shall be **postmarked not less than 30 days prior** to such date:

a. The date upon which demonstration of the performance of the continuous monitoring systems (CMS for MWC boiler combustion temperature, baghouse inlet temperature, MWC boiler load level, lime slurry feed rate, CEMS, CERMS, and COMS) commence in accordance with 40 CFR §60.13. A plan to demonstrate performance of the systems shall accompany each notification.

b. The date of conducting a source performance test as required by Attachment IIA, Section F. A performance test plan as specified in Attachment IIA, Special Condition No. F.5 shall accompany the notification.

(Auth.: HAR §11-60.1-3, §11-60.1-90, §11-60.1-161; 40 CFR §52.21, §60.8, §60.13)[1]

7. CGA and RATA Test Reports

a. All quarterly accuracy audits of the CEMS involving CGA and RATA test reports shall be submitted within thirty (30) days after the end of each semi-annual calendar period (January 1 to June 30 and July 1 to December 31).

b. All annual RATAs for the CERMS shall be submitted within thirty (30) days after the end of the semi-annual calendar period in which the RATA is performed.

(Auth.: HAR §11-60.1-3,§11-60.1-5, §11-60.1-11, §11-60.1-90; 40 CFR, Part 60, Appendix F, §52.21)[1]

8. Performance Test Reports

   Within sixty (60) days after completion of a source performance test, the permittee shall submit the test report results as specified in Attachment IIA, Special Condition No. F.5.

   (Auth.: HAR §11-60.1-3, §11-60.1-11, §11-60.1-90; 40 CFR §52.21, §60.8)[1]

9. Compliance Certification

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

   a. The identification of each term or condition of the permit that is the basis of the certification;
   b. The compliance status;
   c. Whether compliance was continuous or intermittent;
   d. The methods used for determining the compliance status of the source currently and over the reporting period;
   e. Any additional information indicating the source's compliance status with any applicable enhanced monitoring and compliance certification, including the requirements of Section 114 (a) (3) of the Clean Air Act or any applicable monitoring and analysis provisions of Section 504 (b) of the Clean Air Act;
   f. Information as required by 40 CFR Part 70, §70.6(c)(5)(iii); and
   g. 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 the 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; 40 CFR §52.21)[1]

10. Annual Emissions

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

Upon the 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, §11-60.1-90)

11. Monitoring Reports

The permittee shall submit **semi-annually** the following reports to the Department of Health and U.S. EPA Region 9. 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), signed and dated by the responsible official. The enclosed **Monitoring Report Form: MWC Boiler Fuel Consumption** and **Monitoring Report Form: MWC Boiler Operation** shall be used for reporting.

(Auth.: HAR §11-60.1-3, §11-60.1-33, §11-60.1-90; 40 CFR §52.21)[1]

12. Post-Construction Ambient Air Quality and Meteorological Monitoring

a. **At least sixty (60) days prior** to the completion of construction of the H-POWER MWC facility expansion, the permittee shall submit to the Department of Health for approval an ambient air quality and meteorological monitoring plan for the post-construction monitoring requirements specified in Attachment IIA, Special Condition No. D.21. The plan shall include the proposed siting location.

b. The permittee shall submit on a **monthly basis**, a printed summary of the ambient air quality and meteorological monitoring data collected in each calendar month. The summary shall be submitted **within sixty (60) days after** the end of each calendar month.

c. Quarterly and semi-annual audit periods shall be based on a calendar year. As required by EPA guidance, the permittee shall submit audit reports **within sixty (60) days after** the following events:

i. Completion of the post-installation equipment audit;
ii. Completion of the independent performance and system audits;
iii. Completion of the quarterly audits required for the ambient air quality data collection system; and
iv. Completion of the semi-annual audits required for the meteorological data collection system.

d. **Within ninety (90) days after** the end of each calendar year and following the completion of the collection of monitoring data, the permittee shall submit to the Department of Health annual/final reports in text (i.e., summary), tabular, and graphic forms, including data in digitized format. The digitized form of the measured air quality and meteorological data shall be in: (1) EPA Air Quality System (AQS) format and (2) ASCII format accessible by an IBM compatible PC. Within ninety (90) days after

completion of data collection, the permittee shall also submit the final report for the system and performance audit required prior to monitoring termination.

(Auth.: HAR §11-60.1-3, §11-60.1-13, §11-60.1-90, §11-60.1-143; 40 CFR §52.21)[1]

Section F. Testing Requirements

1. Initial and Annual Performance Testing

   a. **Within sixty (60) days after** achieving the maximum production rate at which the mass-burn MWC boiler will be operated, but **not later than one-hundred eighty (180) days after** the initial start-up of the mass-burn MWC boiler, the permittee shall conduct or cause to be conducted performance tests on the mass-burn MWC boiler and ash conveying systems servicing the boiler. Performance tests on the mass-burn MWC boiler shall be for PM, PM_{10}, $PM_{2.5}$, VOC, ammonia, cadmium, lead, mercury, fluorides (as HF), H_2SO_4, SO_2, HCl, NO_X, CO, MWC metals (as PM), and dioxin/furans. Performance tests on ash conveying system(s) shall be for fugitive ash emissions.

   b. Following the date of completing the initial performance tests required for the mass-burn boiler and ash conveying system(s), the performance tests specified in Attachment IIA, Special Condition F.1.a for the mass-burn boiler and ash conveying systems shall be conducted annually (no less than 9 calendar months and no more than 12 calendar months following the previous performance test; and must complete five performance tests in each 5-year calendar period).

   c. Performance tests shall be conducted to determine compliance with the pollutant emission limits specified in Attachment IIA, Special Condition No. C.8.d and the opacity limits specified in Attachment IIA, Special Condition No. C.9. The three-run performance tests to determine compliance with the emission limits specified in Attachment IIA, Special Condition Nos. C.8.d shall be performed at 90% to 110% of the load determined from the most recent performance test that demonstrates compliance with the emission limit for MWC organics, or at the highest achievable load point if 90% to 110% of the maximum load demonstrating compliance with the MWC organic emissions limit cannot be physically achieved, or at other operating loads as specified by the Department of Health.

   d. Performance testing shall be conducted for the mass-burn MWC boiler fired on MSW or other fuels as specified by the Department of Health. The Department of Health may specify additional testing for wastes identified in Attachment IIA, Special Condition No. C.12.

   (Auth.: HAR §11-60.1-3, §11-60.1-5, §11-60.1-11, §11-60.1-90, §11-60.1-161; SIP §11-60.6; 40 CFR §52.21, §60.58b)[1, 2]

2. Performance Test Methods

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 EPA approved equivalent methods shall be used. Performance tests for the mass emissions limits shall be conducted using EPA Methods 1 through 4 for sample sites and number of traverse sites, gas velocity and volumetric flow rate, gas analysis, and determining moisture in stack gases. The following additional methods/provisions shall apply to determine compliance with the applicable emissions limit:

a. The filterable PM emissions shall be determined with EPA Method 5. The minimum sample volume shall be 1.7 cubic meters. The probe and filter holder heating systems in the sample train shall be set to provide a gas temperature no greater than 160 ^{O}C (320 ^{O}F).

c. The PM_{10} emissions shall be determined with EPA Methods 5 or 201A for the filterable portion and EPA Method 202 for the condensable portion.

d. The $PM_{2.5}$ emissions shall be determined with EPA Methods 5 or Other Test Method (OTM)-27 for the filterable portion and EPA Method OTM-28 for the condensable portion.

e. The VOC emissions shall be determined with EPA Method 18 to measure VOC concentrations in conjunction with EPA Method 25A for subtracting exempt VOC contributions.

f. Performance tests for the emissions of ammonia shall be conducted using EPA Conditional Test Method (CTM)-027 or BAAQMD Method ST-1B.

g. Performance tests for the emissions of cadmium, lead, and mercury shall be conducted using EPA Method 29. As an alternative, the mercury emission concentration may be determined with ASTM D6784-02. The minimum sample volume when using EPA Method 29 as an alternative ASTM D6784-02 for mercury shall be 1.7 cubic meters. The percent reduction in potential mercury emissions shall be computed using the equation specified in 40 CFR §60.58b(d)(2)(v).

h. Performance tests for the emissions of fluorides shall be conducted using EPA Method 13B.

i. Performance tests for the emissions of H_2SO_4 shall be conducted using EPA Method CTM-013.

j. Performance test for the emissions of SO_2 shall be conducted using the CEMS to measure SO_2 and calculating the average emission concentration or average percent reduction using EPA Method 19, Sections 4.3 and 4.5, as applicable.

k. Performance tests for the emissions of HCl shall be conducted using EPA Method 26, or as an alternative, EPA Method 26A may be used to determine the HCl emission

concentration. The percent reduction in potential HCl emissions shall be computed using the equation specified in 40 CFR §60.58b(f)(3).

l. Performance tests for the emissions of NO_X shall be conducted using the CEMS to measure NO_X and calculating the average emission concentration using EPA Method 19, Section 4.1.

m. Performance tests for the emissions of CO shall be conducted using EPA Method 10.

n. Performance tests for the emissions of MWC metals shall be conducted using the methods specified for PM in Attachment IIA, Special Condition No. F.2.a.

o. Performance tests for the emissions of dioxin/furans shall be conducted using EPA Method 23. The minimum sample time shall be 4 hours per test run.

p. The permittee may request that compliance with an emission limit be determined using CO_2 measurements corrected to 7 percent O_2. The relationship between O_2 and CO_2 levels for the MWC boiler shall be established as specified in 40 CFR §60.58b(b)(6).

q. Performance tests for the mass emission standards 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. An O_2 (or CO_2) measurement shall be obtained simultaneously with each test run for the applicable pollutant.

r. Compliance with opacity standards shall be determined with EPA Method 9 except as provided under 40 CFR §60.11(e).

s. Performance tests to determine compliance with the fugitive ash emissions limit for an ash conveying system shall be conducted using EPA Method 22. The minimum observation time shall be a series of three 1-hour observations. The average duration of visible emissions per hour shall be calculated from the three 1-hour observations. The observation period shall include times when the facility is transferring ash from the MWC boiler to the area where ash is stored or loaded into containers or trucks. The average duration of visible emissions per hour shall be calculated from the three 1-hour observations. The average shall be used to determine compliance with the fugitive ash emissions limit.

t. Any deviations from these conditions, test methods, or procedures may be cause for rejection of the test results unless such deviations are approved by the Department of Health before the tests.

(Auth.: HAR §11-60.1-3, §11-60.1-5, §11-60.1-11, §11-60.1-90, 40 CFR §52.21, §60.58b, §60.8; SIP §11-60-15)[1,2]

3. Monitoring Systems and Devices

a. All CMS equipment and monitoring devices shall be installed and operational prior to conducting performance tests. Verification of operational status shall, as a minimum, include completion of the manufacturer's written requirements or recommendations for installation, operation, and calibration of the device.

b. Performance evaluations of the CEMS and COMS servicing the mass-burn MWC boiler shall be conducted at least once every four calendar quarters in accordance with the applicable performance specification in 40 CFR, Part 60, Appendix B. The performance evaluation of the CEMS and COMS shall be conducted during any performance test, or within 30 days thereafter, or at other times as required by the Department of Health. The performance evaluations shall be conducted no later than 180 days after initial start-up of the MWC boiler.

c. During the performance tests, the following monitoring system parameters shall be recorded:

1) MWC boiler superheater temperature;
2) Highest 4-hour arithmetic average load, measured in lb/hr steam or feed water flow rate, of the MWC boiler measured during the dioxin/furan performance test that shows compliance with the emission limit for MWC organics;
3) Highest 4-hour arithmetic average baghouse inlet temperature measured during the dioxin/furan performance test that shows compliance with the emission limit for MWC organics;
4) The estimated average carbon mass feed rate based on carbon injection system operating parameters such as screw feeder speed, hopper volume, hopper refill frequency, or other parameters appropriate to the feed system measured during the mercury and dioxin/furan performance test;
5) The SO_2 emission concentration or percent reduction measured by the CEMS during the performance tests to correlate the SO_2 concentration with emission concentrations for fluorides and H_2SO_4 for comparison with the excursion indicator range specified in Attachment IIA, Special Condition No. D.11.a.i;
6) The lime slurry feed rate during the performance test for fluorides and H_2SO_4 for comparison with the excursion indicator range established pursuant to Attachment IIA, Special Condition No. D.11.a.ii; and
7) The percent opacity of the MWC boiler measured by the COMS during the performance tests for emission concentrations of PM, PM_{10}, $PM_{2.5}$, and MWC metals (measured as PM).

(Auth.: HAR §11-60.1-3, §11-60.1-5, §11-60.1-11, 40 CFR §60.11(e)(5), 40 CFR §52.21, §60.13(c))

4. Performance Test Plan

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 U.S. EPA, Region 9 that includes the date(s) of the test, test duration, test locations, test methods, source operation

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

(Auth.: HAR §11-60.1-11, §11-60.1-90, §11-60.1-161; SIP §11-60-15; 40 CFR §52.21, §60.8) [1, 2]

5. Performance Test Report

Within sixty (60) days after completion of the performance test, the permittee shall submit to the Department of Health and U.S. EPA Region 9 the test report which shall include the operating conditions of the mass-burn MWC boiler at the time of the test, 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; SIP §11-60-15; 40 CFR §52.21, §60.8) [1, 2]

6. Testing Expense and Monitoring

The permittee shall provide sampling and testing facilities at its own expense. All performance tests may be monitored by the Department of Health.

(Auth.: HAR §11-60.1-5, §11-60.1-11, §11-60.1-90; SIP §11-60-15; 40 CFR §52.21) [1, 2]

Section G. Agency Notification

1. Any document (including reports) required to be submitted by this permit shall be done in accordance with Attachment I, Standard Condition No. 30.

(Auth.: HAR §11-60.1-4, §11-60.1-90; 40 CFR §52.21)

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

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

ATTACHMENT IIB: SPECIAL CONDITIONS – RDF MWC BOILERS
COVERED SOURCE PERMIT NO. 0255-01-C

Issuance Date: **Expiration Date: February 27, 2011**

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. Attachment IIB of this permit encompasses the following equipment and associated appurtenances:

   a. 854 ton per day Combustion Engineering RDF MWC boiler, model no. VU-40, serial no. 28185-01 with 290 feet high x 6.3 feet diameter flue stack in common stack for both RDF MWC boilers and the following post combustion controls:

      1) Combustion Engineering spray dryer absorber, model no. C-E ESD, serial no. 85187-01 with 189,500 acfm capacity and 14,000 rpm spray nozzles;
      2) Lime injection system servicing the spray dryer absorber;
      3) SPE-Amerex baghouse, model no. RA-35-180-D12, serial no. 1921-01 with 8-10 modules and 175-200 bags per module; and
      4) Combustion Engineering electrostatic precipitator, model no. 1P1C3D5F, serial no. 34185-01 with 174,155 acfm capacity.

   b. 854 ton per day Combustion Engineering RDF MWC boiler, model no. VU-40, serial no. 28185-02 with 290 feet high x 6.3 feet diameter flue stack in common stack for both RDF MWC boilers and the following post combustion controls:

      1) Combustion Engineering spray dryer absorber, model no. C-E ESD, serial no. 85187-02 with 189,500 acfm capacity and 14,000 rpm spray nozzles;
      2) Lime injection system servicing the spray dryer absorber;
      3) SPE-Amerex baghouse, model no. RA-35-180-D13, serial no. 1921-02 with 8-10 modules and 175-200 bags per module; and
      4) Combustion Engineering electrostatic precipitator, model no. 1P1C3D5F, serial no. 34185-02 with 174,155 acfm capacity.

   (Auth.: HAR §11-60.1-3; 40 CFR §52.21)

2. An identification tag or name plate shall be displayed on the equipment listed above which identifies the model no., serial no., and manufacturer. The identification tag or name plate shall be permanently attached to the equipment at a conspicuous location.

   (Auth.: HAR §11-60.1-5)

Section B. Applicable Federal Regulations

1. The RDF MWC boilers and associated equipment are subject to the provisions of the following federal regulations:

   a. 40 CFR Part 60 Standards of Performance for New Stationary Sources, Subpart A - General Provisions;

b. 40 CFR Part 60 Standards of Performance for New Stationary Sources, Subpart Cb - Emission Guidelines and Compliance Times for Municipal Waste Combustors Constructed on or Before September 20, 1994;

c. 40 CFR Part 60 Standards of Performance for New Stationary Sources, Subpart Eb - Standards of Performance for Large Municipal Waste Combustors for which Construction is Commenced after September 20, 1994 or for which Modifications or Reconstruction is Commenced after June 19, 1996 (as referenced by Subpart Cb); and

d. 40 CFR Part 62 Subpart FFF - Federal Plan Requirements for Large Municipal Waste Combustors Constructed on or before September 20, 1994.

e. 40 CFR Part 52, §52.21, Prevention of Significant Deterioration of Air Quality.

(Auth.: HAR §11-60.1-3, §11-60.1-90, §11-60.1-161; 40 CFR §52.21, §60, §62)[1]

2. The permittee shall comply with all applicable provisions of these standards, including all emission limits, notification, testing, monitoring, and reporting 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; 40 CFR §52.21, §60, §62)[1]

Section C. Operational Limitations

1. General

a. Facilities Operation

All equipment, facilities, and systems installed or used to achieve compliance with the terms and conditions of this CSP shall at all times be maintained in good working order and be operated as efficiently as possible to minimize air pollutant emissions.

(Auth.: HAR §11-60.1-3, §11-60.1-5, §11-60.1-90; 40 CFR §52.21)[1]

b. Malfunction

The Department of Health (DOH) shall be notified by telephone within 48 hours following any failure of air pollution control equipment, process equipment, or of a process to operate in a normal manner which results in an increase in emissions above any allowable emissions limit as stated in Section D., Emission Limitations. In addition, the DOH shall be notified in writing within five (5) days of any such failure. This notification shall include a description of the malfunctioning equipment or abnormal operation, the date of the initial failure, the period of time over which emissions were increased due to the failure, the cause of the failure, the estimated resultant emissions in excess of those allowed under Section D., Emission Limitations, and the methods utilized to restore normal operations. Compliance with this malfunction notification shall not excuse or

otherwise constitute a defense to any violations of this permit or of any law or regulations which such malfunction may cause. Malfunction periods shall not exceed 3 hours per occurrence except as follows: if a loss of boiler water level control (e.g., boiler waterwall tube failure) or a loss of combustion air control (e.g., loss of combustion air fan, induced draft fan, combustion grate bar failure) is determined to be a malfunction, the duration of the malfunction period is limited to 15 hours per occurrence for carbon monoxide emission limits.

(Auth.: HAR §11-60.1-3, §11-60.1-5, §11-60.1-90, §11-60.1-161; 40 CFR §52.21, §60.58b(a)(1))[1]

c. Right to Entry

The Director for the DOH, the Regional Administrator for the Environmental Protection Agency (EPA), Region 9 and/or their authorized representatives, upon the presentation of credentials, shall be permitted:

1) To enter upon the premises where the source is located or in which any records are required to be kept under the terms and conditions of this CSP;
2) At reasonable times, to have access to and copy any records required to be kept under the terms and conditions of this CSP;
3) To inspect any equipment, operation, or method required in this CSP; and
4) To sample emissions from the source.

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

d. Fugitive Emissions

1) The permittee shall take measures to control fugitive dust throughout the facility, including but not limited to the following precautions with the ash handling system: the pugmill, conditioning the flyash, sweeping access roads, and covering haul trucks. The DOH may at any time require the permittee to further abate fugitive dust emissions if an inspection indicates poor or insufficient control.

2) The permittee shall not cause or permit fugitive dust to become airborne without taking reasonable precautions and shall not cause the discharge of visible emissions of fugitive dust beyond the lot line of the property on which the emissions originate.

(Auth.: HAR §11-60.1-3, §11-60.1-33, §11-60.1-90)[2]

e. Air Pollution Control Equipment

The permittee shall continuously operate and maintain the following air pollution controls to minimize air emissions:

1) Each MWC shall be equipped with a fabric filter for the control of particulate emissions;

2) Each MWC shall be equipped with a spray dryer absorber (SDA) to control of sulfur dioxide and acid gas emissions;
3) Each primary shredder shall be equipped with a baghouse to control particulate emissions; and
4) Each of the RDF processing lines shall be equipped with a baghouse to control particulate emissions.

(Auth.: HAR §11-60.1-3, §11-60.1-90; 40 CFR §52.21)[1]

2. MWCs

a. The MWC boilers shall be fired only on RDF, fuel oil no. 2, specification (spec) used oil, used cooking oil, or any combination thereof, except for the Alternate Operating Scenarios listed in Attachment IIA, Special Condition No. C.2.i.

(Auth.: HAR §11-60.1-3, §11-60.1-90; 40 CFR §52.21)[1]

b. The maximum firing rate of fuel oil (fuel oil no. 2, spec used oil, and used cooking oil) per MWC shall not exceed 1,770 gallons per hour.

(Auth.: HAR §11-60.1-3, §11-60.1-9; 40 CFR §52.21)[1]

c. The total fuel oil (fuel oil no. 2, spec used oil, and used cooking oil) consumption of each MWC shall not exceed 1,738,500 gallons in any rolling twelve (12) month period.

(Auth.: HAR §11-60.1-3, §11-60.1-90; 40 CFR §52.21)[1]

d. The MWCs shall be fired only on fuel oil no. 2 with a maximum sulfur content not to exceed 0.5 percent by weight.

(Auth.: HAR §11-60.1-3, §11-60.1-38, §11-60.1-90; 40 CFR §52.21)[1]

e. Combustion Temperature

In any 4-hour block average, the combustion temperature in the MWCs shall be maintained at or above 1800ºF (except during MWC warm-up, start-up, shut-down, or malfunction). Combustion temperature is defined as the temperature of combustion gases at a point above the grate and below secondary air injection. Compliance with this criterion shall be established based upon correlated furnace roof thermocouple measurements. The correlated roof thermocouple temperature (based upon an average of thermocouples across the furnace width) shall be established during initial performance testing. Combustion temperature monitoring shall be done according to Attachment IIA, Special Condition No. E.3.

(Auth.: HAR §11-60.1-3, §11-60.1-90; 40 CFR §52.21)[1]

f. Fabric Filter Inlet Temperature

1) In any 4-hour block average (except during and 2 weeks preceding the dioxin/furan performance tests and during MWC warm-up, start-up, shutdown, or malfunction), the flue gas temperature at the inlet of the fabric filter shall not exceed 17ºC (approximately 30.6 ^{O}F if the temperature change is determined in ^{O}F) above the highest 4-hour arithmetic average measured during the most recent dioxin/furan performance test.

2) Upon DOH approval, this condition may be waived for the purpose of evaluating system performance, testing new technology or control technologies, diagnostic testing, or related activities for the purpose of improving facility performance or advancing the state-of-the-art for controlling facility emissions.

(Auth.: HAR §11-60.1-3, §11-60.1-90; 40 CFR §52.21, §60.34b(b), §60.53b(c))[1]

g. MWC Load Level

1) In any 4-hour block average (except during and 2 weeks preceding the dioxin/furan performance tests), the MWCs shall not operate at a load based on steam (or feedwater) flow rate greater than 110 percent of the highest 4-hour arithmetic average measured during the most recent dioxin/furan performance test.

2) Upon DOH approval, this condition may be waived for the purpose of evaluating system performance, testing new technology or control technologies, diagnostic testing, or related activities for the purpose of improving facility performance or advancing the state-of-the-art for controlling facility emissions.

(Auth.: HAR §11-60.1-3, §11-60.1-90, §11-60.1-161; 40 CFR §52.21, §60.34b(b), §60.53b(b))[1]

h. Spec Used Oil

1) The permit conditions prescribed herein may be revised at any time by the DOH to reflect state or federal promulgated rules on used oil.

2) This permit shall not release the permittee from compliance with all applicable state and federal rules and regulations on the handling, transporting, storing and burning of used oil.

3) The used oil generated within the HPOWER facility may be burned in accordance with the procedures specified in this permit. Used oil may also be obtained from other sources, provided a written notification identifying the new source is submitted to the DOH, and approved, prior to the acceptance of the used oil.

4) The total amount of spec used oil fired in the MWCs shall not exceed 430,000 gallons in any rolling twelve (12) month period.

5) Samples shall be taken of the used oil from the onsite facility emptied into each 55-gallon drum. The samples shall be taken in such a manner that the composite sample obtained is representative of all the oil in the drums. Samples taken in this manner shall be composited for analysis. The composite sample shall represent no more than 1,500 gallons of spec used oil or all of the oil collected in any three (3) month period, whichever is less.

6) Each composite sample shall be submitted in a timely manner to a qualified laboratory and an analysis report shall be obtained for the constituents/properties for which limits are given in Attachment IIA, Special Condition No. C.2.h.8).

7) This permit does not authorize the permittee to burn hazardous waste. The permittee shall not burn the used oil if declared or determined to be a hazardous waste.

8) The following constituents/properties of the specification used oil shall not exceed the specified limits listed below:

Constituent/Property	**Allowable Limit**
Arsenic	5 ppm maximum
Cadmium	2 ppm maximum
Chromium	10 ppm maximum
Lead	100 ppm maximum
Total Halogens	1000 ppm maximum
Sulfur	0.5% maximum by weight
Flash Point	100ºF minimum
Polychlorinated Biphenyls (PCB)	<2 ppm

9) Should the results of any used oil analyses exceed the limits specified in Attachment IIA, Special Condition No. C.2.h.8), the contaminated containers shall be identified and isolated from the non-contaminated containers and properly disposed of.

(Auth.: HAR §11-60.1-3, §11-60.1-5, §11-60.1-38, §11-60.1-90, 40 CFR §52.21, §279.11)

i. Alternate Operating Scenarios

1) Terms and conditions for reasonably anticipated alternate operating scenarios identified by the permittee in the covered source permit application and approved by the DOH are as follows:

a) Supplemental Waste

Supplemental waste is defined as discrete deliveries of waste components normally found in MSW, but delivered to the facility in quantities greater than those normally found in MSW.

The facility shall blend and mix the supplemental waste with MSW so that maximum emissions will not differ from those described in Attachment IIA,

Section D for the processing of garbage. At a minimum, records shall be kept on the dates, the type and detailed description of supplemental waste, the amount in tons, and the supplier of each supplemental waste that is received. Each type of supplemental waste is defined below:

Commodity Wastes - Generated by commercial operations or retail outlets, and are accumulated as a result of the material being off-specification, outdated, or deemed no longer fit for distribution, sale, or consumption. Includes but not limited to: food products, health care products, cosmetics, and other retail store products.

Pharmaceutical Wastes - Includes prescription and non-prescription pharmaceuticals, controlled substances and pharmaceutical waste regulated by the US Drug Enforcement Agency (DEA). The waste will be accumulated by pharmaceutical manufacturers, wholesalers, retailers and hospitals, or confiscated by law enforcement officers.

Manufacturing Wastes - Generated as the result of industrial and manufacturing processes. This category would include floor sweepings, non-hazardous sludge, industrial filters (paint filters, air filters, etc.), adhesives, paints, and inks. No bulk liquids of this type shall be accepted.

Oily Wastes - Includes any of the following three categories: (1) filters, (2) solid wastes containing "virgin oil," and (3) solid wastes containing used oil. The oily waste streams include, but are not limited to rags, paper towels, granular or fiber absorbents, fabric pads and booms. Booms and pads would be prepared as needed for processing. Commercial businesses such as spill clean-up companies and automobile repair shops generate these types of wastes.

Filters will only be accepted if classified as non-hazardous, punctured and drained of free liquids (40 CFR Part 261). Solid waste containing "virgin oil" will only be accepted if certified as non-hazardous solid waste and if it contains no free liquid. Solid wastes containing used oil is considered a Hawaii Special Waste and will be managed as such. The used oil waste will also be managed in accordance with Federal standards outlined in 40 CFR Part 279 (EPA Standards for the Management of Used Oil). Waste oil products containing equal to or greater than 2 ppm of PCBs shall not be accepted in any form by the permittee.

Used Cooking Oil - Generated mainly by restaurants. The used cooking oil will be transported and decanted by contractors to remove water and unwanted particles.

Triple-Rinsed Containers - These containers will mainly be comprised of high density polyethylene plastic (HDPE). Polystyrene and polyurethane containers may also be included in waste deliveries. Containers that were initially used to store pesticides are the major component of this waste type. Prior to delivery, the containers shall be cut into halves. Also, they shall be triple-rinsed according to Federal Regulation 40 CFR Part 261.7 or the definition set forth in the Hawaii

Solid Waste Management Control Regulations (Title 11), whichever is more stringent. The supplier is required to provide a statement certifying that the containers were triple-rinsed according to acceptable rinsing methods.

Shredded Tires and Automobile Shredder Residue - Tires and automobile shredder residue are both considered Hawaii Special Wastes and will be managed as such. Shredded tires will be blended with other MSW prior to charging to the combustors. If the sulfur content of the tires is high, mitigation shall be accomplished by materials management and blending.

Automobile shredder residue consists of items such as foam rubber, seat covers, gaskets, plastics, etc. Prior to acceptance, the supplier must analyze representative samples of automobile shredder residue for hazardous constituents, such as PCBs and heavy metals. After being determined acceptable for processing, it will be blended with other MSW prior to combustion.

Treated Medical Wastes - Includes sterilized waste generated from medical, veterinary or other health care facilities and considered a Hawaii special waste. Components include bandages, dressings, syringes, cultures, injectables, infectious or pathological wastes that has been subjected to sterilization (i.e., autoclave). The supplier is required to provide a statement certifying that the treated medical wastes were sterilized appropriately.

Treated Foreign Wastes - Includes sterilized solid waste generated by carriers leaving foreign ports and entering Hawaii. Considered a special waste in Hawaii. Components include airline carrier garbage or solid waste from sea-going vessels. Foreign waste received by the permittee must comply with regulations set forth by the U.S. Department of Agriculture. In addition, foreign waste would be processed in a manner similar to that for the management and processing of medical wastes, in accordance with Hawaii regulations. The supplier is required to provide a statement certifying that the treated foreign wastes were sterilized appropriately.

b) MWC Warm-Up

During periods of warm-up, not to exceed 12 hours at a time, the SDAs need not be operated until the SDA inlet temperature reaches 250ºF. At this temperature, the MWCs and the SDAs shall be brought up to normal operating temperatures and efficiencies simultaneously. During these warm-ups, the MWCs shall be fired on fuel oil only, and shall not exceed 63 lb/hr of SO_2. Records during these periods shall be kept on the CEMS reading and corresponding calculations.

c) MWC Start-Up

Start-up, not to exceed 3 hours at a time, shall follow the warm-up period. Start-up commences when RDF is added gradually to the fuel stream and the fuel oil is decreased at a rate which insures the MWC temperatures remain in the normal operating condition range until full-load, steady-state conditions can be reached.

The start-up period does not include any warm-up period.

d) MWC Shut-Down

Shut-down, not to exceed 3 hours at a time, shall follow normal operating conditions. Shut-down commences when the RDF feed is stopped and fuel oil is added to burn remaining RDF in the MWCs.

2) The permittee shall contemporaneously with making a change from one operating scenario to another, record in a log at the permitted facility the scenario under which it is operating and, if required by any applicable requirement or the DOH, submit written notification to the DOH.

3) The permittee shall maintain invoices and supplier certifications for each delivery of supplemental wastes as listed in Attachment IIA, Special Condition No. C.2.i.1)a).

4) The terms and conditions under each alternative operating scenario shall meet all applicable requirements including all conditions of this permit.

(Auth.: HAR §11-60.1-3, §11-60.1-5, §11-60.1-90, §11-60.1-161; 40 CFR §60.38b(a), §60.58b(a)(1), 40 CFR Part 261, 40 CFR Part 279)[1]

j. Operator Certification

1) Provisional Certification

Each chief facility operator and shift supervisor shall obtain and maintain a current provisional operator certification from the American Society of Mechanical Engineers (ASME) QRO-1-1994 (or equivalent certification program with approval from the DOH).

2) Full Certification

Each chief facility operator and shift supervisor shall have completed full certification or have scheduled a full certification exam from the ASME QRO-1-1994 (or equivalent certification program with approval from the DOH).

3) Staff on Duty

One of the following must always be on duty: a fully certified chief facility operator, a provisionally certified chief facility operator who has scheduled a full certification exam, a fully certified shift supervisor, or a provisionally certified shift supervisor who has scheduled a full certification exam.

If one of the above must leave during a shift, a provisionally certified control room operator may fulfill the requirement for Attachment IIA, Special Condition No. C.2.j.3) using the following guidelines ("stand-in" provisions):

a) No notification is required if a control room operator is "standing-in" for 8 hours or less.

b) If a control room operator is "standing-in" between 8 hours and 2 weeks, then the permittee shall notify the DOH by phone within the first 24 hours and notify the EPA and the DOH in writing within the first five (5) working days. At a minimum, the notification shall include date and time of the expected "stand-in," the person who is "standing-in," person's qualifications, and the reason for the "stand-in."

c) If a control room operator is "standing-in" for 2 weeks or more, then the permittee shall fulfill the requirements of Attachment IIA, Special Condition No. C.2.j.3)b) plus provide corrective actions and expected date of return of a fully certified operator. The permittee shall submit the written status summary every two weeks up until the return of a fully certified operator. The DOH may impose stricter conditions as necessary.

(Auth.: HAR §11-60.1-3, §11-60.1-5, §11-60.1-90, §11-60.1-161; 40 CFR §60.35b, §60.54b(a) - (c))[1]

k. Operator Training

1) All chief facility operators, shift supervisors, and control room operators must complete the EPA MWC operator training course (or equivalent training course with approval from the DOH) as of January 3, 2002. This condition does not apply to those who have obtained full certification from ASME.

The permittee may request that the DOH waive the EPA training course requirement for those who have obtained provisional certification from ASME (or equivalent training course with approval from the DOH).

2) The permittee shall develop and update on an annual basis a site-specific operating manual that shall, at a minimum, address the elements of MWC unit operation specified as follows:

a) A summary of the applicable standards under 40 CFR 60 Subparts Cb and Eb;
b) A description of basic combustion theory applicable to a MWC unit;
c) Procedures for receiving, handling, and feeding MSW;
d) MWC warm-up, start-up, shut-down, and malfunction procedures;
e) Procedures for maintaining proper combustion air supply levels;
f) Procedures for operating the MWC unit within the standards established by 40 CFR 60 Subparts Cb and Eb;
g) Procedure for responding to periodic upset or off-specification conditions;
h) Procedures for minimizing particulate matter carryover;
i) Procedures for handling ash;
j) Procedures for monitoring MWC unit emissions;
k) Reporting and recordkeeping procedures; and
l) Include all sample forms used for reporting and recordkeeping as required by this

CSP.

3) The permittee shall establish an annual training program to review the operating manual and conduct the initial training program with each person who has responsibilities affecting the operation of an affected facility including, but not limited to, chief facility operators, shift supervisors, control room operators, ash handlers, maintenance personnel, and crane/load handlers. These persons shall undergo initial training no later than the date prior to the day the person assumes responsibilities affecting MWC unit operation.

4) The operating manual shall be kept in a readily accessible location for all persons required to undergo training.

(Auth.: HAR §11-60.1-3, §11-60.1-5, §11-60.1-90, §11-60.1-161; 40 CFR §60.35b, §60.39b(c)(4), §60.54b(d) - (g))[1]

Section D. Emission Limitations

1. Visible Emissions

a. Each RDF MWC boiler shall not exhibit visible emissions greater than ten (10) percent opacity, for any six (6) minute averaging period, except as follows: during warm-up, start-up, shut-down, or malfunction each RDF MWC boiler 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.

b. The permittee shall not cause to be discharged to the atmosphere visible emissions of combustion ash from an ash conveying system or enclosure (including conveyor transfer points) in excess of 5 percent of the observation period (i.e., 9 minutes per 3-hour period). This condition does not apply for the following:

1) Visible emissions discharged inside buildings or enclosures of ash conveying systems; and

2) During maintenance and repair of ash conveying systems.

(Auth.: HAR §11-60.1-3, §11-60.1-32, §11-60.1-90, §11-60.1-161; 40 CFR §52.21, §60.33b(a)(1)(iii), §60.36b, §60.55b(a) - (c))[1]

2. Each MWC shall not exceed the following emission limits at all times (except during periods of warm-up, start-up, shut-down, or malfunction):

Table No. 1
Emission Limits[1]

Pollutant		Emission Limits [2,8]
SO_2	24-hr [3,4]	29 ppmv
	8-hr [3]	70 ppmv
PM		27 mg/dscm
NO_2	24-hr [5]	250 ppmv
CO	24-hr [5]	200 ppmv
VOC		21 ppmv
Pb		0.20 lb/hr
Be		0.0009 lb/hr
Hg [6]		0.080 mg/dscm
HF		2.6 lb/hr
HCl [7]		29 ppmv
Dioxin/Furan		60 ng/dscm
Cd		0.040 mg/dscm

Table No. 1 Notes:
1. Emission limits shall not be exceeded by each MWC (except during warm-up, start-up, shut-down, or malfunction).
2. All emission limits are corrected to 7% O_2 except for Pb, Be, and HF.
3. 24-hr daily and 8-hr block geometric average.
4. Or 75% reduction by weight or volume (whichever is less stringent).
5. 24-hr daily arithmetic average.
6. Or 85% reduction by weight (whichever is less stringent).
7. Or 95% reduction by weight or volume (whichever is less stringent).
8. Before April 29, 2011, all emission limits identified in Table No. 1 shall remain in effect. On and after April 29, 2011, the following revisions to the emission limits for each RDF MWC boiler with a fabric filter takes into effect: PM reduced to 25 mg/dscm, Cd reduced to 0.035 mg/dscm, Hg reduced to 0.050 mg/dscm, dioxin/furan reduced to 30 ng/dscm, and Pb reduced to 0.400 mg/dscm @ 7% O_2.

(Auth.: HAR §11-60.1-3, §11-60.1-90, §11-60.1-161; 40 CFR §52.21, §60.33b, §60.34b, 60.58b(a)(1))[1]

Section E. Monitoring and Recordkeeping Requirements

1. Records

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

   (Auth.: HAR §11-60.1-3, §11-60.1-5, §11-60.1-81, §11-60.1-90; 40 CFR §52.21)[1]

2. The permittee shall operate, maintain, and calibrate continuous emission monitoring systems (CEMS) at each of the MWC exhaust streams to measure opacity, NO_x (as NO_2), SO_2, CO, and O_2 concentrations in the flue gas as follows:

   a. Hourly averages shall be recorded for 75 percent of the operating hours per day for 90 percent of the operating days per calendar quarter that the MWCs are in operation.

   b. At least two (2) data points per hour shall be used to calculate each 1-hour arithmetic average.

   c. Each 1-hour average for NO_x, SO_2, and CO shall be corrected to 7 percent oxygen on an hourly basis using the 1-hour average of the oxygen CEMS data.

   d. The 1-hour averages for NO_x, SO_2, and CO shall be expressed in parts per million by volume (dry basis) and used to calculate the 24-hour and 8-hour concentrations.

   e. All valid CEMS data must be used in calculating emission averages even if the minimum CEMS data requirements are not met.

   f. The procedures under 40 CFR §60.13 shall be followed for installation, evaluation, and operation of the CEMS.

   g. The CEMS shall be operated according to Performance Specifications 1,2,3, and 4A in 40 CFR Appendix B and shall follow the procedures and methods specified as follows:

      1) During each relative accuracy test audit (RATA) of the CEMS, NO_x, SO_2, CO, and O_2, data shall be collected concurrently (or within a 30 to 60-minute period) by both the CEMS and test methods as follows:

         a) For NO_x, EPA Reference Method 7, 7A, 7C, 7D, or 7E shall be used.
         b) For SO_2, EPA Reference Method 6, 6A, or 6C shall be used.
         c) For CO, EPA Reference Method 10, 10A, or 10B shall be used.
         d) For O_2, EPA Reference Method 3, 3A, or 3B shall be used.

O_2 data shall be collected concurrently with each NO_x, SO_2, and CO data collection.

2) The span value of the CEMS shall be 125 percent of the maximum estimated hourly potential emissions.

h. Quarterly accuracy audits and daily calibration drift tests shall be performed in accordance with 40 CFR 60 Appendix F. Successively quarterly audits shall occur no closer than two months. RATA must be conducted at least once every four calendar quarters.

i. When continuous emissions data cannot be obtained because of CEMS breakdowns, repairs, calibration checks, and zero and span adjustments, emissions data shall be obtained using other monitoring systems as approved by the DOH or the following (to provide valid emissions data for a minimum of 75 percent of the hours per day for 90 percent of the days per calendar quarter the MWCs are operated):

1) For NO_x, EPA Reference Method 19 shall be used.
2) For SO_2, EPA Reference Method 19 shall be used.
3) For CO, EPA Reference Method 10 shall be used.

j. Records shall be kept on all 6-minute average opacity levels as recorded by CEMS.

(Auth.: HAR §11-60.1-3, §11-60.1-90, §11-60.1-161; 40 CFR §52.21, §60.38b(a), §60.39b(a), §60.58b(b), (c), (e), (h), (i), §60.59b(d))[1]

3. The permittee shall operate, maintain, and calibrate a continuous monitoring system to measure and record the flue gas temperatures (in ºF) immediately downstream of the MWC superheaters and at the inlet of the fabric filter (in 4-hour block averages) for each MWC. For purposes of monitoring, the flue gas temperature as measured downstream of the superheaters shall be maintained at or above the value that correlated to 1800ºF in the boilers, as obtained during the performance tests required under Attachment IIA, Special Condition No. G.8.

(Auth.: HAR §11-60.1-3, §11-60.1-90, §11-60.1-161; 40 CFR §52.21, §60.38b(a), §60.39b(a), §60.58b(i)(7), §60.59b(d)(2)(i)(D))[1]

4. The permittee shall operate, maintain, and calibrate a flow meter (in pounds per hour) to monitor and record (in 4-hour block averages) the steam (or feedwater) flow rate for each MWC as follows:

a. The method included in Section 4 of the "American Society of Mechanical Engineers Power Test Codes: Test Code for Steam Generating Units, Power Test Code 4.1 -- 1964 (R1991)" shall be used for calculating the steam (or feedwater) flow.

b. The recommendations in Chapter 4 of the "American Society of Mechanical Engineers Interim Supplement 19.5 on Instruments and Apparatus: Application, Part II of Fluid Meters, 6th Edition" shall be followed for design, construction, installation, calibration,

and use of nozzles and orifices.

c. Measurement devices such as flow nozzles and orifices are not required to be recalibrated after they are installed.

d. All signal conversion elements associated with steam (or feedwater flow) measurements must be calibrated according to the manufacturer's instructions before each dioxin/furan performance test, and at least once per year.

(Auth.: HAR §11-60.1-3, §11-60.1-90, §11-60.1-161; 40 CFR §52.21, §60.38b(a), §60.39b(a), §60.58b(i)(6), §60.59b(d)(2)(i)(D))[1]

5. Records shall be kept of all exceedances of any applicable emission limits and/or operating parameters. The records shall also include the reasons for such exceedances and a description of corrective actions taken.

(Auth.: HAR §11-60.1-3, §11-60.1-90, §11-60.1-161; 40 CFR §52.21, §60.39b(a), §60.59b(d)(3))[1]

6. Records shall be kept of all time periods when data was not obtainable for the minimum hours of NO_x, SO_2, CO, and O_2 emission concentrations, fabric filter inlet temperatures, and MWC unit steam load (or boiler feedwater) levels. The records shall also include the reasons for not obtaining sufficient data and a description of actions taken.

(Auth.: HAR §11-60.1-3, §11-60.1-90, §11-60.1-161; 40 CFR §60.39b(a), §60.59b(d)(6))[1]

7. Records shall be kept of all occurrences when any data was excluded from the calculation of NO_x, SO_2, CO, and O_2 average emission concentrations, fabric filter inlet temperatures, and MWC unit load levels and the reasons for excluding the data.

(Auth.: HAR §11-60.1-3, §11-60.1-90, §11-60.1-161; 40 CFR §52.21, §60.39b(a), §60.59b(d)(7))[1]

8. Records shall be kept of the results of all daily calibration drift tests and quarterly accuracy audits for the CEMS.

(Auth.: HAR §11-60.1-3, §11-60.1-90, §11-60.1-161; 40 CFR §52.21, §60.39b(a), §60.59b(d)(8), 40 CFR 60 Appendix F)[1]

9. Records shall be kept of all test reports documenting the results of all annual performance tests conducted. Also (for all dioxin/furan performance tests) the maximum RDF loads and fabric filter inlet temperatures shall be recorded.

(Auth.: HAR §11-60.1-3, §11-60.1-90, §11-60.1-161; 40 CFR §52.21, §60.39b(a), §60.59b(d)(9)(i), (ii))[1]

10. Records shall be kept showing the names of the MWC chief facility operator, shift supervisors, and control room operators who have been provisionally certified by ASME (or

DOH approved equivalent) and the dates of initial and renewal certifications and documentation of the current certification.

(Auth.: HAR §11-60.1-3, §11-60.1-90, §11-60.1-161; 40 CFR, §60.39b(a), §60.59b(d)(12)(I))[1]

11. Records shall be kept showing the names of the MWC chief facility operator, shift supervisors, and control room operators who have been fully certified by ASME (or DOH approved equivalent) and the dates of initial and renewal certifications and documentation of the current certification.

    (Auth.: HAR §11-60.1-3, §11-60.1-90, §11-60.1-161; 40 CFR §60.39b(a), §60.59b(d)(12)(ii))[1]

12. Records shall be kept showing the names of the MWC chief facility operator, shift supervisors, and control room operators who have completed the EPA MWC operator training course (or DOH approved equivalent). A copy of documentation of the training completion shall also be kept.

    (Auth.: HAR §11-60.1-3, §11-60.1-90, §11-60.1-161; 40 CFR §60.39b(a), §60.59b(d)(12)(iii))[1]

13. Records shall be kept showing the names of persons who have completed a review of the operating manual including the date of the initial review and subsequent annual reviews.

    (Auth.: HAR §11-60.1-3, §11-60.1-90, §11-60.1-161; 40 CFR §60.39b(a), §60.59b(d)(13))[1]

14. Fuel Usage

    a. A non-resetting fuel meter (in gallons) shall be operated and maintained on each MWC for the continuous and permanent recording of the total fuel oil consumed. Each meter shall permanently record the total fuel oil consumed for the purpose of monitoring the fuel oil limitations specified in Attachment IIA, Special Condition Nos. C.2.b and c. The permittee shall periodically check the fuel meter for its accuracy and provide maintenance as necessary.

       Fuel oil no. 2, spec used oil and used cooking oil consumption shall be calculated and recorded in gallons per hour and gallons per rolling twelve (12) month period for the purpose of monitoring the fuel oil limitations specified in Attachment IIA, Special Condition Nos. C.2.b and c.

    b. The following information shall be recorded for the fuel oil consumption meter reading for each MWC:

       1) Date of meter readings;
       2) Beginning meter readings for each hour;
       3) Total fuel oil consumption for each hour;
       4) Beginning meter readings for each month;

5) Total fuel oil consumption for each month; and
6) Total fuel oil consumption on a rolling twelve (12) month basis.

c. Records shall be kept for supplemental wastes as required in Attachment IIA, Special Condition No. C.2.i.3).

d. Records shall be maintained on the tons per year RDF and supplemental waste fired by the MWC boilers. Records to determine the amount of waste fired may include delivery truck records, storage facility records, records on steam flow rate that correlate the tons of material fired, etc.

(Auth.: HAR §11-60.1-3, §11-60.1-5, §11-60.1-90; 40 CFR §52.21)[1]

15. Invoices on the amount of fuel oil no. 2 delivered to the facility for the MWCs shall be maintained. The invoice or supplier's specification sheet for the fuel oil no. 2 shall show the sulfur content by weight.

(Auth.: HAR §11-60.1-3, §11-60.1-5, §11-60.1-90; 40 CFR §52.21)[1]

16. Spec Used Oil

The permittee shall maintain records on the analyses of all spec used oil stored on-site. At a minimum, these records shall include: the sampling date; the amount of fuel delivered (in gallons); the analysis report; and the supplier name. Summaries shall include the monthly total and the total based on a rolling twelve (12) month basis for the purposes of monitoring the annual spec used oil consumption.

(Auth.: HAR §11-60.1-3, §11-60.1-5, §11-60.1-90; 40 CFR §52.21)[1]

17. Fabric Filter

The permittee shall monitor and maintain records on the fabric filter replacement.

(Auth.: HAR §11-60.1-3, §11-60.1-5, §11-60.1-90; 40 CFR §52.21)[1]

18. Inspection, Maintenance, and Repair Log

The permittee shall maintain records on inspections, maintenance, and any repair work conducted on the MWCs, SDAs, fabric filters, and/or monitoring devices mentioned above. At a minimum, these records shall include: the date of the inspection; the name and title of the inspector; a short description of the action and/or any such repair work; and a description of the part(s) inspected or repaired.

(Auth.: HAR §11-60.1-3, §11-60.1-5, §11-60.1-90; 40 CFR §52.21)[1]

19. All test/sampling/records shall include, if applicable:

a. Monitoring location, date and time of sampling or measurements;

b. Dates sampling analyses were performed;
c. Name and address of the company or entity that performed the analyses;
d. Analytical techniques or methods used;
e. Analysis of results; and
f. Operating conditions during the time of sampling or measurement.

(Auth.: HAR §11-60.1-3, §11-60.1-5, §11-60.1-90, §11-60.1-161; 40 CFR 52.21, §60.59(d))[1]

Section F. 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;
   b. Emissions of air pollutants in violation of HAR, Chapter 11-60.1 or this permit (excluding technology-based emission exceedances 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; 40 CFR §52.21)[1,2]

2. Deviations

   The permittee shall report (in writing) **within five (5) working days** any deviations from 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 stack testing, or more frequent monitoring, or could trigger implementation of a corrective action plan.

   (Auth.: HAR §11-60.1-3, §11-60.1-15, §11-60.1-16, §11-60.1-90; 40 CFR §52.21)[1]

3. Compliance Certification

   a. 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;
6) Information as required by 40 CFR Part 70, §70.6(c)(5)(iii); and
7) Any additional information as required by the Department of Health including information to determine compliance.

b. 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.

c. 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; 40 CFR §52.21)[1]

4. Semi-Annual Reports

a. Summary Reports

The owner or operator shall submit a semi-annual report (submitted by August 1 and February 1 following the first calendar half and second calendar half, respectively) which includes the following:

1) Any recorded emission and/or parameter that did not comply with the specified limit for opacity, SO_2, NO_x, and CO emissions concentrations, MWC unit load levels (i.e., steamload/feedwater), and fabric filter inlet temperatures.

(Auth.: HAR §11-60.1-3, §11-60.1-90, §11-60.1-161; 40 CFR §60.39b(a), 60.59b(h)(1))[1]

2) The date of exceedance, the corrective actions taken, and the concurrent data recorded for opacity, SO_2, NO_x, and CO emissions concentrations, MWC unit load levels, and fabric filter inlet temperatures.

(Auth.: HAR §11-60.1-3, §11-60.1-90, §11-60.1-161; 40 CFR §52.21, §60.39b(a), §60.59b(h)(2))[1]

3) A summary of the test report and the corrective actions taken if there were any exceedances during the most recent annual performance test for the emissions of opacity, PM, SO_2, NO_x, CO, VOC, HCl, Cd, Pb, Hg, Be, HF, dioxin/furan, and fugitive ash.

(Auth.: HAR §11-60.1-3, §11-60.1-90, §11-60.1-161; 40 CFR §52.21, §60.39b(a), §60.59b(g)(1)(i), §60.59b(h)(3))[1]

4) A list of the highest results recorded for opacity, SO_2, NO_x, and CO emissions

concentrations, MWC unit load levels, and fabric filter inlet temperatures recorded during the semi-annual period.

(Auth.: HAR §11-60.1-3, §11-60.1-90, §11-60.1-161; 40 CFR §52.21, §60.39b(a), §60.59b(g)(1)(ii), (iii))[1]

5) The total number of days that the minimum number of hours of data for SO_2, NO_x, and CO emissions concentrations, MWC unit load levels, and fabric filter inlet temperatures were not obtained.

(Auth.: HAR §11-60.1-3, §11-60.1-90, §11-60.1-161; 40 CFR §52.21, §60.39b(a), §60.59b(g)(1)(iv))[1]

6) The total number of hours that data for SO_2, NO_x, and CO emissions concentrations, MWC unit load levels, and fabric filter inlet temperature were excluded from the calculation of average emission concentrations or parameters.

(Auth.: HAR §11-60.1-3, §11-60.1-90, §11-60.1-161; 40 CFR §52.21, §60.39b(a), §60.59b(g)(1)(v))[1]

7) A summary of the data (as submitted for Attachment IIA, Special Condition Nos. F.4.a.1) through F.4.a.6) above) for the previous year in order to have a summary of performance over a 2-year period.

(Auth.: HAR §11-60.1-3, §11-60.1-90, §11-60.1-161; 40 CFR §52.21, §60.39b(a), §60.59b(g)(2))[1]

8) A separate summary shall identify all emission and/or parameter levels that did not achieve the specified limits over the 2-year period.

(Auth.: HAR §11-60.1-3, §11-60.1-90, §11-60.1-161; 40 CFR §52.21, §60.39b(a), §60.59b(g)(3))[1]

b. Excess Emissions

The permittee shall submit a semi-annual report (submitted by August 1 and February 1 following the first calendar half and second calendar half, respectively) of all excess emissions to the DOH. The report shall include the following:

1) The magnitude of excess emissions computed in accordance with 40 CFR 60.13(h), any concurrent data, any conversion factors used, the date and time of commencement and completion of each time period of excess emissions, and corrective actions taken.

(Auth.: HAR §11-60.1-3, §11-60.1-5, §11-60.1-90, §11-60.1-161; 40 CFR §52.21, §60.59b(h))[1]

2) Specific identification of each period of excess emissions that occurs during start-

ups, shut-downs, and malfunctions of the MWC systems. The nature and cause of any malfunction (if known) and the corrective action taken or preventative measures adopted, shall also be reported.

(Auth.: HAR §11-60.1-3, §11-60.1-5, §11-60.1-90, §11-60.1-161; 40 CFR §52.21, §60.59b(h))[1]

3) The date and time identifying each period during which CEMS was inoperable except for zero and span checks. The nature of each system repair or adjustment shall be described.

(Auth.: HAR §11-60.1-3, §11-60.1-5, §11-60.1-90, §11-60.1-161; 40 CFR §52.21, §60.59b(h))[1]

4) 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.

(Auth.: HAR §11-60.1-3, §11-60.1-5, §11-60.1-90, §11-60.1-161; 40 CFR §52.21, §60.59b(h))[1]

5) Excess emissions of NO_x (as NO_2) shall be defined as any 24-hour daily period during which the average emissions, as measured by the CEMS, exceeds the maximum emissions specified for NO_x in Attachment IIA, Section D.

(Auth.: HAR §11-60.1-3, §11-60.1-5, §11-60.1-90, §11-60.1-161; 40 CFR §52.21, §60.59b(h))[1]

6) Excess emissions of SO_2 shall be defined as any 8-hour block and/or any 24-hour daily period during which the average emissions, as measured by the CEMS, exceeds the maximum emissions specified for SO_2 pollutants in Attachment IIA, Section D.

(Auth.: HAR §11-60.1-3, §11-60.1-5, §11-60.1-90, §11-60.1-161; 40 CFR §52.21, §60.59b(h))[1]

7) Excess emissions of CO shall be defined as any 24-hour daily period during which the average emissions, as measured by the CEMS, exceeds the maximum emissions specified for CO pollutants in Attachment IIA, Section D.

(Auth.: HAR §11-60.1-3, §11-60.1-5, §11-60.1-90, §11-60.1-161; 40 CFR §52.21, §60.59b(h))[1]

8) Excess emissions of opacity shall be defined as any six-minute period during which the opacity as measured by Method 9 or the CEMS exceeds the opacity limits set in Attachment IIA, Section D.

(Auth.: HAR §11-60.1-3, §11-60.1-5, §11-60.1-90, §11-60.1-161; 40 CFR §52.21,

§60.59b(h))[1]

9) The enclosed Excess Emissions and Monitoring System Performance Summary Report form shall be used in conjunction with the reporting of excess emissions.

(Auth.: HAR §11-60.1-3, §11-60.1-5, §11-60.1-90; 40 CFR §52.21)[1]

c. Fuel Monitoring Reports

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

1) The permittee shall report the monthly and rolling twelve (12) month total of spec used oil consumed for both MWCs. The permittee shall also report the used oil analyses which indicated exceedances of the limits specified in Attachment IIA, Special Condition No. C.2.h.8). If there were no exceedances, the permittee shall submit in writing a statement indicating that there were no exceedances for that semi-annual period. The enclosed **Monitoring Report Form*:* MWC Boiler Fuel Consumption** shall be used for both MWCs.

(Auth.: HAR §11-60.1-3, §11-60.1-90; 40 CFR §52.21)[1]

2) The permittee shall report the analyses of the sulfur content in the fuel oil for which there are exceedances of the limits specified in Attachment IIA, Special Condition No. C.2.d. If there were no exceedances, the permittee shall submit (in writing) a statement indicating that there were no exceedances for that semi-annual period. The enclosed **Monitoring Report Form: MWC Boiler Fuel Consumption** shall be used for both MWCs.

(Auth.: HAR §11-60.1-3, §11-60.1-90; 40 CFR §52.21)[1]

3) The permittee shall report the monthly and rolling twelve (12) month total of fuel oil no. 2, spec used oil, and cooking oil consumed per MWC. The maximum hourly fuel consumption (per MWC) shall be noted in the comment column for each month. The enclosed **Monitoring Report Form: MWC Boiler Fuel Consumption** and Monitoring Report Form: MWC Boiler Operation shall be used (one form per MWC for the total fuel oil no. 2, spec used oil, and cooking oil consumption).

(Auth.: HAR §11-60.1-3, §11-60.1-90; 40 CFR §52.21)[1]

5. Annual Emissions

a. As required by Attachment IV and in conjunction with the requirements of Attachment III, Annual Fee Requirements, the permittee shall report **annually** the total tons per year emitted of each regulated air pollutant, including hazardous air pollutants. The

reporting of annual emissions is due **within sixty (60) days following** the end of each calendar year. The enclosed **Annual Emissions Report Form: MWC Boilers**, shall be used.

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

(Auth.: HAR §11-60.1-3, §11-60.1-90)

Section G. Testing Requirements

1. On an annual basis, or at such times as specified by the DOH, the permittee shall conduct or cause to be conducted stack performance tests on the MWCs to determine the rate of discharge of opacity, particulate matter (PM), volatile organic compounds (VOC), hydrogen chloride (HCl), cadmium (Cd), lead (Pb), mercury (Hg), beryllium (Be), fluorides (HF), dioxin/furan, and fugitive ash. The DOH may require additional testing for wastes identified in Attachment IIA, Special Condition No. C.2.i.

   (Auth.: HAR §11-60.1-3, §11-60.1-5, §11-60.1-11, §11-60.1-90, §11-60.1-161, 40 CFR §52.21, §60.38b, §60.58b, §60.672)[1]

2. Performance tests for the emissions of opacity, PM, VOC, HCl, Cd, Pb, Hg, Be, HF, dioxin/furan, and fugitive ash shall be conducted and the results reported in accordance with the test methods set forth in 40 CFR 60, Part 60.8 and Appendix A. The three-run performance tests to determine compliance with the applicable emission limit shall be performed at 90% to 110% of the load determined from the most recent performance test that demonstrates compliance with the emission limit for MWC organics, or at the highest achievable load point if 90% to 110% of the maximum load demonstrating compliance with organic emissions limit cannot be physically achieved, or at other operating loads as specified by the Department of Health. The following test methods or U.S. EPA approved equivalent methods shall be conducted:

   a. Performance tests for opacity shall be conducted using EPA Method 9 and procedures in 40 CFR §60.11, including additional procedures listed in 40 CFR §60.675.

   (Auth.: HAR §11-60.1-3, §11-60.1-11, §11-60.1-90, §11-60.1-161; 40 CFR §52.21, §60.58b(c))[1]

   b. Performance tests for the emissions of PM shall be conducted using EPA Methods 1-5. The minimum sample volume shall be 1.7 cubic meters. The probe and filter holder heating systems in the sample train shall be set to provide a gas temperature no greater than 160 ± 14ºC.

   (Auth.: HAR §11-60.1-3, §11-60.1-11, §11-60.1-90, §11-60.1-161; 40 CFR §52.21, §60.58b(c))[1]

c. Performance tests for the emissions of VOC shall be conducted using EPA Methods 1-4 and 18 or 25.

(Auth.: HAR §11-60.1-3, §11-60.1-11, §11-60.1-90, §11-60.1-161; 40 CFR §52.21, §60)[1]

d. Performance tests for the emissions of HCl shall be conducted using EPA Methods 1-4 and 26 or 26A.

(Auth.: HAR §11-60.1-3, §11-60.1-11, §11-60.1-90, §11-60.1-161; 40 CFR §52.21, §60.58b(f))[1]

e. Performance tests for the emissions of Cd shall be conducted using EPA Methods 1-4 and 29.

(Auth.: HAR §11-60.1-3, §11-60.1-11, §11-60.1-90, §11-60.1-161; 40 CFR §52.21, §60.58b(d)(1))[1]

f. Performance tests for the emissions of Pb shall be conducted using EPA Methods 1-4 and 29.

(Auth.: HAR §11-60.1-3, §11-60.1-11, §11-60.1-90, §11-60.1-161; 40 CFR §52.21, §60.58b(d)(1))[1]

g. Performance tests for the emissions of Hg and Be shall be conducted using EPA Methods 1-4 and 29.

(Auth.: HAR §11-60.1-3, §11-60.1-11, §11-60.1-90, §11-60.1-161; 40 CFR §52.21, §60.58b(d)(2))[1]

h. Performance tests for the emissions of HF shall be conducted using EPA Methods 1-4 and 13B.

(Auth.: HAR §11-60.1-3, §11-60.1-11, §11-60.1-90, §11-60.1-161; 40 CFR §52.21, §60)[1]

i. Dioxin/Furan

1) Performance tests for the emissions of dioxin/furan shall be conducted using EPA Methods 1-4 and 23. The minimum sample time shall be 4 hours per test run. The maximum MWC unit load and maximum fabric filter inlet temperature shall be recorded for each test.

2) The permittee may conduct annual performance tests for one (1) MWC per year if performance tests (over a 2-year period) indicate that dioxin/furan emissions are less than or equal to 15 nanograms per dry standard cubic meter (total mass). At a minimum, a performance test for dioxin/furan emissions shall be conducted annually (no more than 12-months following the previous performance

test) for one (1) MWC. Each year a different MWC shall be tested in sequence (e.g., unit 1 for the first year, unit 2 for the second year, then back to unit 1 for the third year, as applicable). If each annual performance test continues to indicate a dioxin/furan emission level less than or equal to 15 nanograms per dry standard cubic meter (total mass), the permittee may continue conducting a performance test on only one (1) MWC per year. If any annual performance test indicates a dioxin/furan emission level greater than 15 nanograms per dry standard cubic meter (total mass), performance tests thereafter shall be conducted annually on all MWCs until and unless all annual performance tests for all MWCs over a 2-year period indicate a dioxin/furan emission level less than or equal to 15 nanograms per dry standard cubic meter (total mass). The procedure in Attachment IIA, Special Condition No. F.4.a.9) shall be used to notify the DOH.

(Auth.: HAR §11-60.1-3, §11-60.1-11, §11-60.1-90, §11-60.1-161; 40 CFR §52.21, §60.38b(b), §60.58b(g), §60.59b(d)(9)(ii))[1]

j. Performance tests for the emissions of fugitive ash from the ash conveying system (including conveyor transfer points) shall be conducted using EPA Method 22. The minimum observation time shall be a series of three (3) 1-hour observations. The observation period shall include times when the facility is transferring ash from the MWCs to the area where ash is stored or loaded into containers or trucks. The average duration of visible emissions per hour shall be calculated from the three (3) 1-hour observations. The average shall be used to determine compliance.

(Auth.: HAR §11-60.1-3, §11-60.1-11, §11-60.1-90, §11-60.1-161; 40 CFR §52.21, §60.58b(k))[1]

3. **At least 30 calendar days prior** to performing a test, the owner or operator shall submit a written performance test plan to the DOH that describes the test duration, test locations, test methods, source operation and other parameters that may affect test results. Such a plan shall conform to U.S. EPA guidelines including quality assurance procedures. A test plan or quality assurance plan that does not have the approval of the DOH may be grounds to invalidate any test and require a retest.

   (Auth.: HAR §11-60.1-3, §11-60.1-5, §11-60.1-11, §11-60.1-90; 40 CFR §52.21)[1]

4. The performance tests shall consist of a minimum of three (3) separate runs for a minimum of 1-hour each (except as noted) using the applicable test methods. 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 §11-60.1-11, §11-60.1-90; 40 CFR 60.8; SIP §11-60-15; 40 CFR §52.21)[1,2]

5. For each run, the RDF feed rate in tons per hour shall be provided. The permittee shall document the methodology by which each RDF feed rate was determined. Separate determinations shall be made for each run on each MWC.
   (Auth.: HAR §11-60.1-5, §11-60.1-90; 40 CFR §52.21)[1]

6. Where reporting values are required in parts per million by volume (ppmv), the concentration shall be by volume and the dry standard cubic feet of flue gas shall be corrected to 7 percent O_2.

   (Auth.: HAR §11-60.1-5, §11-60.1-90, §11-60.1-161; 40 CFR §52.21, §60.58)[1]

7. During the performance tests, the correlated superheater temperatures for each MWC and the fabric filter inlet temperatures shall be recorded.

   (Auth.: HAR §11-60.1-5, HAR §11-60.1-11, §11-60.1-90; 40 CFR §52.21)[1]

8. The permittee shall provide sampling and testing facilities at its own expense. The tests shall be conducted at the maximum expected operating capacity of the facility. The DOH may also monitor the tests.

   (Auth.: HAR §11-60.1-11, §11-60.1-90; SIP §11-60-15; 40 CFR §52.21)[1,2]

9. For performance test purposes, sampling ports, platforms, and access shall be provided by the permittee on each MWC exhaust system in accordance with 40 CFR §60.8(e) and 40 CFR §61.12.

   (Auth.: HAR §11-60.1-11, §11-60.1-90; 40 CFR §52.21)[1]

10. **Within sixty (60) days after** a performance test, the permittee shall submit to the DOH the test report which shall include the operating conditions of the MWCs at the time of the test, the summarized test results, and other pertinent field and laboratory data.

    (Auth.: HAR §11-60.1-3, §11-60.1-5, §11-60.1-11, §11-60.1-90, §11-60.1-161; 40 CFR §52.21, §60.59b(d)(9); SIP§11-60-15)[1,2]

11. Any deviations from these conditions, test methods, or procedures may be cause for the rejection of the test results unless such deviations are approved by the DOH before the tests.

    (Auth.: HAR §11-60.1-11, §11-60.1-90; SIP §11-60-15; 40 CFR §52.21)[1,2]

Section H. Agency Notification

1. Any document (including reports) required to be submitted by this permit shall be done in accordance with Attachment I, Standard Condition No. 30.

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

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

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

ATTACHMENT IIC: SPECIAL CONDITIONS
WASTE PROCESSING FACILITY BAGHOUSES
COVERED SOURCE PERMIT NO. 0255-01-C

Issuance Date: **Expiration Date: February 27, 2011**

In addition to the standard conditions of the covered source permit, the following special conditions shall apply to the permitted facility:

1. Attachment IIC of this permit encompasses the following equipment and associated appurtenances:

   a. Two (2) Ray-Jet Fabric Filter baghouses, model no. 696-8-SWIP, serial no. 990476-01P with 4,500 acfm capacity servicing two primary shredders.

   b. Two (2) Ray-Jet Fabric Filter baghouses, model no. 61214-20, serial no. 990467-01S with 40,000 acfm capacity servicing two secondary shredders.

   (Auth: HAR §11-60.1-3)

2. An identification tag or name plate shall be displayed on the baghouses listed above which identifies the model no., serial no., and manufacturer. The identification tag or name plate shall be permanently attached to the equipment at a conspicuous location.

   (Auth.: HAR §11-60.1-5)

Section B. Operation and Emission Limitations

1. Pressure Drop

   The pressure drop across the primary and secondary shredder baghouses shall be maintained at 1" to 7" H_2O.

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

2. Primary Shredders

   Each primary shredder shall be equipped with a baghouse for the control of particulate emissions.

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

3. RDF Processing Lines

   Each of the RDF processing lines shall be equipped with a baghouse for the control of particulate emissions.

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

4. Baghouse Operation

   The permittee shall ensure the following items of the baghouses are operating properly:

a. The filter bags are checked for any tears, holes, abrasions, and scuffs; and replaced as needed.
b. The hopper is discharged in a timely manner to prevent excessive particulate buildup which could cause compaction, overflow, or plugging.
c. The cleaning system is maintained and operated at sufficient intervals to minimize particulate buildup or caking on the filter bags.

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

5. Opacity

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

(Auth.: HAR §11-60.1-3, §11-60.1-32, §11-60.1-90)

Section C. Monitoring and Recordkeeping Requirements

1. Records

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

(Auth.: HAR §11-60.1-3, §11-60.1-5, §11-60.1-81, §11-60.1-90)

2. Hours of Operation

Records shall be maintained on the operating hours of the primary and secondary shredder baghouses for purposes of annual emissions reporting requirements.

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

3. Pressure Drop

A gauge shall be installed, operated, and maintained for each baghouse to monitor the pressure drop for purposes of determining compliance with Attachment IIC, Special Condition No. B.1. The pressure drop reading from the guage for each baghouse shall be recorded on a daily basis.

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

4. Inspection, Maintenance, and Repair Log

   The permittee shall maintain records on inspections, maintenance, and any repair work conducted on the baghouses. At a minimum, these records shall include: the date of the inspection; name and title of the inspector; a short description of the action and/or any such repair work; and a description of the part(s) inspected or repaired.

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

Section D. 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;
   b. Emissions of air pollutants in violation of HAR, Chapter 11-60.1 or this permit (excluding technology-based emission exceedances 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)[2]

2. Deviations

   a. The permittee shall report (in writing) **within five (5) working days** any deviations from 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 stack testing, or more frequent monitoring, or could trigger implementation of a corrective action plan.

   b. The permittee shall report to the Department of Health changes in the pressure drop from those specified by the manufacturer in Attachment IIB, Special Condition No. B.1. Any changes in the required pressure drop shall be recommended by the manufacturer or performance test data and approved after evaluation by the Department of Health.

   (Auth.: HAR §11-60.1-3, §11-60.1-15, §11-60.1-16, §11-60.1-90)

3. Compliance Certification

   a. 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;
6) Information as required by 40 CFR Part 70, §70.6(c)(5)(iii); and
7) Any additional information as required by the Department of Health including information to determine compliance.

b. 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.

c. 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)

4. Annual Emissions

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

Upon the 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)

5. Monitoring Report

The permittee shall submit **semi-annually** the following report to the Department of Health. 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), signed and dated by the responsible official. The enclosed **Monitoring Report Form: Waste Processing Facility Baghouses** shall be used for reporting.

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

Section E. Agency Notification

1. Any document (including reports) required to be submitted by this permit shall be done in accordance with Attachment I, Standard Condition No. 30.

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

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

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

ATTACHMENT IID: SPECIAL CONDITIONS – COOLING TOWERS
COVERED SOURCE PERMIT NO. 0255-01-C

Issuance Date: **Expiration Date: February 27, 2011**

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. Attachment IID of this permit encompasses the following equipment and associated appurtenances:

   a. 5-cell Lilie Hoffman induced draft cooling tower, serial no. 990467-01S, with 50,500 gallon per minute recirculation water flow rate and 0.002% drift rate.

   b. 3-cell induced draft cooling tower with 29,000 gallon per minute recirculation water flow rate and 0.0005% drift rate.

   (Auth.: HAR §11-60.1-3)

2. An identification tag or name plate shall be displayed on the cooling towers which identifies the applicable model no., serial no., and manufacturer. The identification tag or name plate shall be permanently attached to the cooling towers at a conspicuous location.

(Auth.: HAR §11-60.1-5)

Section B. Operational and Emission Limitations

1. Recirculation Water Solids Content

   a. The dissolved solids content of the recirculation water from the 5-cell cooling tower shall not exceed 57,000 ppm.

   b. The dissolved solids content of the recirculation water from the 3-cell cooling tower shall not exceed 57,000 ppm.

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

2. Water Treatment Chemicals

   Chromium treatment chemicals shall not be used in the cooling tower systems.

   (Auth.: HAR §11-60.1-3, §11-60.1-5, §11-60.1-90, §11-60.1-161, 40 CFR 63)

Section C. Monitoring and Recordkeeping Requirements

1. Records

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

   (Auth.: HAR §11-60.1-3, §11-60.1-5, §11-60.1-81, §11-60.1-90)

2. Recirculation Water

   a. Records shall be maintained on the type and quantity of water treatment chemicals used in the cooling water system on a monthly basis. All material data safety sheets (MSDSs) associated with each chemical shall be maintained on site for inspection and made available to the EPA, the Department of Health, or its representatives upon request.

   b. A water sample analysis of the recirculation water from each cooling tower shall be performed quarterly to determine the dissolved solids content of the cooling tower recirculation water. The Department reserves the right to request an analysis of the recirculation water from each cooling tower to determine the presence of chromium based water treatment chemicals.

   c. Manufacturer's data on the total cooling tower drift rate and recirculation water flow rate shall be kept on file at the facility for the life of each cooling tower.

   (Auth.: HAR §11-60.1-5, §11-60.1-90, 40 CFR §63.404)

3. Inspection, Maintenance, and Repair Log

   The permittee shall maintain records on inspections, maintenance, and any repair work conducted on the cooling towers. At a minimum, these records shall include: the date of the inspection; the name and title of the inspector; a short description of the action and/or any such repair work; and a description of the part(s) inspected or repaired.

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

Section D. Notification and Reporting Requirements

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

a. Anticipated date of initial startup, actual date of construction commencement, and actual date of startup;
b. Emissions of air pollutants in violation of HAR, Chapter 11-60.1 or this permit (excluding technology-based emission exceedances 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)[2]

2. Deviations

The permittee shall report **within five (5) working days** any deviations from 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 more frequent monitoring or could trigger implementation of a corrective action plan.

(Auth.: HAR §11-60.1-3, §11-60.1-15, §11-60.1-16, §11-60.1-90)

3. Compliance Certification

a. 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;
    6) Information as required by 40 CFR Part 70, §70.6(c)(5)(iii); and
    7) Any additional information as required by the Department of Health including information to determine compliance.

b. 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.

c. 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)

4. Annual Emissions

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

   Upon the 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)

5. Monitoring Report

   The permittee shall submit **semi-annually** the following report to the Department of Health. 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), signed and dated by the responsible official. The enclosed **Monitoring Report Form: Cooling Towers** shall be used for reporting.

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

Section E. Agency Notification

1. Any document (including reports) required to be submitted by this permit shall be done in accordance with Attachment I, Standard Condition No. 30.

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

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

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

ATTACHMENT II - INSIG: SPECIAL CONDITIONS - INSIGNIFICANT ACTIVITIES
COVERED SOURCE PERMIT NO. 0255-01-C

Issuance Date: **Expiration Date: February 27, 2011**

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. Attachment II-INSIG of this permit encompasses the following insignificant activities:

    a. Two (2) 25,000 gallon diesel storage tanks;
    b. 120 gallon gasoline storage tank;
    c. 80 hp Caterpillar emergency diesel engine generator, model no. 3304B;
    d. 121 hp Caterpillar emergency diesel fire pump engine, model no. 3208-175;
    e. 11 hp engine for power washing;
    f. 10.1 hp engine for an air compressor;
    g. 11.1 hp engine for welding equipment;
    h. 30 gallon mineral spirits tank for metal parts cleaning;
    i. Lime silo with baghouse servicing spray dryer absorber for the two 854 ton per day RDF MWC boilers;
    j. Lime silo with baghouse servicing spray dryer absorber for the 900 ton per day mass-burn MWC boiler;
    k. Activated carbon silo with baghouse servicing activated carbon injection system for the 900 ton per day mass-burn MWC boiler; and
    l. Roof vents servicing the RDF processing and storage building.

    (Auth.: HAR §11-60.1-3)

Section B. Operational Limitations

1. The permittee shall take measures to operate insignificant activities in accordance with the provisions of HAR, Subchapter 2.

    (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 Record keeping Requirements

1. The Department of Health reserves the right to require monitoring, record keeping, 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, record keeping, testing, or reporting. These records shall be true, accurate, and maintained in a permanent form suitable for inspection and made available to the Department of Health or its authorized representative upon request.

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

Section D. Notification and Reporting

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

   In lieu of addressing each emission unit as specified in **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.

   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 or authorized representative.

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

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

Section E. Agency Notification

1. Any document (including reports) required to be submitted by this covered source permit shall be done in accordance with Attachment I, Standard Condition No. 30.

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

ATTACHMENT III: ANNUAL FEE REQUIREMENTS
COVERED SOURCE PERMIT NO. 0255-01-C

Issuance Date: **Expiration Date: February 27, 2011**

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 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. 0255-01-C

Issuance Date: **Expiration Date: February 27, 2011**

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 forms:

   Annual Emissions Report Form: MWC Boilers
   Annual Emissions Report Form: Waste Processing Facility Baghouses
   Annual Emissions Report Form: Cooling Towers

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
   919 Ala Moana Boulevard, Room 203
   Honolulu, HI 96814

3. The permittee shall retain the information submitted, including all emission calculations. These records shall be in a permanent form suitable for inspection, retained for a minimum of five (5) years, and made available to the 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 manufacturing, 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. 0255-01-C
PAGE 1 OF ___

Issuance Date: **Expiration Date: February 27, 2011**

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 of Health:

(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.

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COMPLIANCE CERTIFICATION FORM
COVERED SOURCE PERMIT NO. 0255-01-C
(CONTINUED, PAGE 2 OF _____)

Issuance Date: **Expiration Date: February 27, 2011**

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

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

A. Attachment I, Standard Conditions

Permit term/condition	Equipment(s)	Compliance
All standard conditions	All Equipment(s) listed in the permit	Continuous Intermittent

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

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

COMPLIANCE CERTIFICATION FORM
COVERED SOURCE PERMIT NO. 0255-01-C
(CONTINUED, PAGE 3 OF _____)

Issuance Date: **Expiration Date: February 27, 2011**

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) to show compliance for the respective permit term/condition.

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

(Make Additional Copies if Needed)

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COMPLIANCE CERTIFICATION FORM
COVERED SOURCE PERMIT NO. 0255-01-C
(CONTINUED, PAGE _____ OF _____)

Issuance Date: **Expiration Date: February 27, 2011**

D. Deviations

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

(Make Additional Copies if Needed)

EXCESS EMISSION AND MONITORING SYSTEM
PERFORMANCE SUMMARY REPORT
COVERED SOURCE PERMIT NO. 0255-01-C
(PAGE 1 OF 4)

Issuance Date: **Expiration Date: February 27, 2011**

In accordance with the HAR, 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)

COMPLETE SEPARATE FORMS FOR EACH RDF AND MASS-BURN MWC BOILER

CONDITION NO.: _____

Facility Name: H-POWER Municipal Waste Combustor Facility

Company Name: Covanta Honolulu Resource Recovery Venture (CHRRV)

Equipment Location: _____

Equipment Description (Unit No.): _____

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/periods) of Excess Emissions in Reporting Period due to:
   a. Warmup/Startup/Shutdown..... _____
   b. Cleaning/Soot Blowing..... _____
   b. Control Equipment Failure..... _____
   c. Process Problems..... _____
   d. Other Known Causes..... _____
   e. Unknown Causes..... _____
   f. 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)..... _____

CEMS PERFORMANCE SUMMARY

1. CEMS downtime (hours/periods) 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..... _____

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EXCESS EMISSION AND MONITORING SYSTEM
PERFORMANCE SUMMARY REPORT
COVERED SOURCE PERMIT NO. 0255-01-C
(CONTINUED, PAGE 2 OF 5)

Issuance Date: **Expiration Date: February 27, 2011**

3. Total CEMS Downtime
   (% of Total Source Operating Time)..... _____
4. Identify all dates, times, and duration when the emission limits for NO_X, SO_2 and CO were exceeded.

Date	Time	Duration (minutes)	Pollutant	Averaging Period

CERMS PERFORMANCE SUMMARY

1. CEMRS downtime (hours/periods) 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 CERMS Downtime..... _____
3. Total CEMS Downtime
   (% of Total Source Operating Time)..... _____
4. Identify all dates, times, and duration when the emission limits for NO_X, SO_2 and CO were exceeded.

Date	Time	Duration (minutes)	Pollutant	Period

COMS PERFORMANCE SUMMARY

1. COMS downtime (hours/periods) 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..... _____

EXCESS EMISSION AND MONITORING SYSTEM
PERFORMANCE SUMMARY REPORT
COVERED SOURCE PERMIT NO. 0255-01-C
(CONTINUED, PAGE 3 OF 5)

Issuance Date: **Expiration Date: February 27, 2011**

2. Total COMS Downtime..... _____
3. Total COMS Downtime
   (% of Total Source Operating Time)..... _____
4. Identify all dates, times, and duration when the opacity limits for the MWC boiler were exceeded.

Date	Time	Duration (minutes)	MWC Boiler % Opacity

CMS PERFORMANCE SUMMARY

1. CMS downtime (hours/periods) 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 CMS Downtime..... _____
3. Total CMS Downtime
   (% of Total Source Operating Time)…….. _____

4. Identify all dates, times, and duration where the 4-hour block arithmetic average MWC boiler combustion temperature was "below" 1,800 ^{O}F.

Date	Time	Duration (minutes)	Combustion Temperature (^{O}F)

Provide on another sheet the reason why the 4-hour block arithmetic average combustion temperature was below 1,800 ^{O}F.

5. Number of incidents of combustion temperature below 1,800 ^{O}F..... _____
6. Total duration of combustion temperature below 1,800 ^{O}F..... _____
7. Percentage of total duration combustion temperature below 1,800 ^{O}F
   (% of total source operating time)..... _____

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EXCESS EMISSION AND MONITORING SYSTEM
PERFORMANCE SUMMARY REPORT
COVERED SOURCE PERMIT NO. 0255-01-C
(CONTINUED, PAGE 4 OF 5)

Issuance Date: **Expiration Date: February 27, 2011**

8. Identify all dates, times, and duration where the 4-hour block arithmetic average MWC boiler load was greater than 110% of the highest 4-hour arithmetic load as measured during the most recent dioxin/furan performance test that shows compliance with the emissions limit for MWC organics.

Date	Time	Duration (minutes)	MWC Boiler Load (MW)	Percent MWC Boiler Load

Provide on another sheet the reason why the 4-hour block arithmetic average MWC boiler load was greater than 110% of the highest 4-hour arithmetic load as measured during the most recent dioxin/furan performance test that shows compliance with the emissions limit for MWC organics.

9. Number of incidents of boiler load level above 110% of highest measured load during most recent dioxin/furan performance test that shows compliance with limit for MWC organics..... _____

10. Total duration of boiler load level above 110% of highest measured load during most recent dioxin/furan performance test that shows compliance with limit for MWC organics..... _____

11. Percentage of total duration of boiler load level above 110% of highest measured load during most recent dioxin/furan performance test that shows compliance with limit for MWC organics.... (% of total source operating time)..... _____

12. Identify all dates, times, and duration where the 4-hour block arithmetic average MWC boiler particulate matter control device inlet temperature was greater than 17 ^{O}C (30.6 ^{O}F if change in temperature is determine in ^{O}F) above highest 4-hour arithmetic average temperature measured during the most recent dioxin/furan performance test demonstrating compliance with the emissions limit for MWC organics.

Date	Time	Duration (minutes)	Particulate Control Device Inlet Temperature Differential	
			^{O}F	^{O}C

Provide on another sheet, the reason(s) why the particulate matter control device inlet temperature was greater than 17 ^{O}C (30.6 ^{O}F if change in temperature is determine in ^{O}F) above highest 4-hour arithmetic average temperature measured during the most recent dioxin/furan performance test demonstrating compliance with the emissions limit for MWC organics.

EXCESS EMISSION AND MONITORING SYSTEM
PERFORMANCE SUMMARY REPORT
COVERED SOURCE PERMIT NO. 0255-01-C
(CONTINUED, PAGE 5 OF 5)

Issuance Date: **Expiration Date: February 27, 2011**

13. Number of incidents of particulate matter control device inlet temperature greater than 17 ^{O}C (30.6 ^{O}F if change in temperature is determine in ^{O}F) above highest 4-hour arithmetic average temperature measured during the most recent dioxin/furan performance test demonstrating compliance with the emissions limit for MWC organics ..... ____

14. Total duration of particulate matter control device inlet temperature greater than 17 ^{O}C (30.6 ^{O}F if change in temperature is determine in ^{O}F) above highest 4-hour arithmetic average temperature measured during the most recent dioxin/furan performance test demonstrating compliance with the emissions limit for MWC organics..... _____

15. Percentage of total duration of particulate matter control device inlet temperature greater than 17 ^{O}C (30.6 ^{O}F if change in temperature is determine in ^{O}F) above highest 4-hour arithmetic average temperature measured during the most recent dioxin/furan performance test demonstrating compliance with the emissions limit for MWC organics
(% of total source operating time)....._____

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 scenario 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 exceedances.

CERTIFICATION by Responsible Official

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

NAME (Print/Type): _____
Title: _____
(Signature): _____

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ANNUAL EMISSIONS REPORT FORM
MWC BOILER FUEL CONSUMPTION
COVERED SOURCE PERMIT NO. 0255-01-C
(PAGE 1 OF 4)

Issuance Date: **Expiration Date: February 27, 2011**

In accordance with the HAR, 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 Reporting Period: _____ Date: _____

Company Name: Covanta Honolulu Resource Recovery Venture (CHRRV)

Facility Name: H-POWER Municipal Waste Combustor Facility

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): _____

1. Report the fuel consumption for the 900 ton per day mass-burn MWC boiler as follows for determining criteria pollutant, HAP emissions, and NH_3 emissions:

Type of Fuel Fired	Fuel Consumption	Maximum % Sulfur Content
Fuel Oil No. 2 Auxiliary Fuel		
Used Cooking Oil Auxiliary Fuel		
MSW		
Supplemental Waste		

2. Report the fuel consumption for the 854 ton per day RDF MWC boiler (serial no. 28185-01) as follows for determining criteria pollutant and HAP emissions:

Type of Fuel Fired	Fuel Consumption	Maximum % Sulfur Content
Fuel Oil No. 2 Auxiliary Fuel		
Specification Used Oil Auxiliary		
Used Cooking Oil Auxiliary Fuel		
RDF		
Supplemental Waste		

3. Report the fuel usage for the 854 ton per day RDF MWC boiler (serial no. 28185-02) as follows for determining criteria pollutant and HAP emissions:

Type of Fuel Fired	Fuel Consumption	Maximum % Sulfur Content
Fuel Oil No. 2 Auxiliary Fuel		
Specification Used Oil Auxiliary Fuel		
Used Cooking Oil Auxiliary Fuel		
RDF		
Supplemental Waste		

ANNUAL EMISSIONS REPORT FORM
MWC BOILER FUEL CONSUMPTION
COVERED SOURCE PERMIT NO. 0255-01-C
(CONTINUED, PAGE 2 OF 4)

Issuance Date: **Expiration Date: February 27, 2011**

4. Report the ton per year criteria pollutant and NH_3 emissions for the 900 ton per day mass-burn MWC boiler as follows:

Pollutant	Emission (ton/yr)	Basis for Emissions Calculation
SO_2		Higher of CEMS or Performance Test (circle one) _____ ____ _____ emission rate units basis[a]
PM		_____ ____ _____ emission rate units basis[a]
PM_{10}		_____ ____ _____ emission rate units basis[a]
$PM_{2.5}$		_____ ____ _____ emission rate units basis[a]
CO		Higher of CEMS or Performance Test (circle one) _____ ____ _____ emission rate units basis[a]
NO_X		Higher of CEMS or Performance Test (circle one) _____ ____ _____ emission rate units basis[a]
VOC		_____ ____ _____ emission rate units basis[a]
Pb		_____ ____ _____ emission rate units basis[a]
NH_3		_____ ____ _____ emission rate units basis[a]

a: Identify basis of emission rate: CEMS, AP-42 emission factor, performance test, permit limit, etc.

ANNUAL EMISSIONS REPORT FORM
MWC BOILER FUEL CONSUMPTION
COVERED SOURCE PERMIT NO. 0255-01-C
(CONTINUED, PAGE 3 OF 4)

Issuance Date: **Expiration Date: February 27, 2011**

5. Report the ton per year criteria pollutant emissions for the 854 ton per day RDF MWC boiler (serial no. 28185-01) as follows:

Pollutant	Emission (ton/yr)	Basis for Emissions Calculation
SO_2		Higher of CEMS or Performance Test (circle one) _____ ____ _____ emission rate units basis[a]
PM		_____ ____ _____ emission rate units basis[a]
PM_{10}		_____ ____ _____ emission rate units basis[a]
$PM_{2.5}$		_____ ____ _____ emission rate units basis[a]
CO		Higher of CEMS or Performance Test (circle one) _____ ____ _____ emission rate units basis[a]
NO_X		Higher of CEMS or Performance Test (circle one) _____ ____ _____ emission rate units basis[a]
VOC		_____ ____ _____ emission rate units basis[a]
Pb		_____ ____ _____ emission rate units basis[a]

a: Identify basis of emission rate: CEMS, AP-42 emission factor, performance test, permit limit, etc.

ANNUAL EMISSIONS REPORT FORM
MWC BOILER FUEL CONSUMPTION
COVERED SOURCE PERMIT NO. 0255-01-C
(CONTINUED, PAGE 4 OF 4)

Issuance Date: **Expiration Date: February 27, 2011**

6. Report the ton per year criteria pollutant emissions for the 854 ton per day RDF MWC boiler (serial no. 28185-02) as follows:

Pollutant	Emission (ton/yr)	Basis for Emissions Calculation
SO_2		Higher of CEMS or Performance Test (circle one) _____ ____ _____ emission rate units basis[a]
PM		_____ ____ _____ emission rate units basis[a]
PM_{10}		_____ ____ _____ emission rate units basis[a]
$PM_{2.5}$		_____ ____ _____ emission rate units basis[a]
CO		Higher of CEMS or Performance Test (circle one) _____ ____ _____ emission rate units basis[a]
NO_X		Higher of CEMS or Performance Test (circle one) _____ ____ _____ emission rate units basis[a]
VOC		_____ ____ _____ emission rate units basis[a]
Pb		_____ ____ _____ emission rate units basis[a]

a: Identify basis of emission rate: CEMS, AP-42 emission factor, performance test, permit limit, etc.

ANNUAL EMISSIONS REPORT FORM
WASTE PROCESSING FACILITY BAGHOUSES
COVERED SOURCE PERMIT NO. 0255-01-C

Issuance Date: **Expiration Date: February 27, 2011**

In accordance with the HAR, 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 Reporting Period: _____ Date: _____

Company Name: Covanta Honolulu Resource Recovery Venture (CHRRV)

Facility Name: H-POWER Municipal Waste Combustor Facility

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): _____

1. Report the tons per year RDF processed at the waste processing facility as follows for determining particulate emissions:

Unit	Capacity (ft^3/min)	Total Combined Operation (hrs/yr)
Two Primary Shredder Baghouses	4,500	
Two Secondary Shredder Baghouses	40,000	

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ANNUAL EMISSIONS REPORT FORM
COOLING TOWERS
COVERED SOURCE PERMIT NO. 0255-01-C

Issuance Date: **Expiration Date: February 27, 2011**

In accordance with the HAR, 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 Reporting Period: _____ Date: _____

Company Name: Covanta Honolulu Resource Recovery Venture (CHRRV)

Facility Name: H-POWER Municipal Waste Combustor Facility

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): _____

1. Report the average dissolved solids content of the recirculation water for the cooling towers for determining particulate emissions:

Unit	Capacity (gallon per minute)	Drift Rate	Average Dissolved Solids of Recirculation Water (ppm)
5-Cell Cooling Tower	50,500	0.002%	
3-Cell Cooling Tower	29,000	0.0005%	

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MONITORING REPORT FORM
MWC BOILER FUEL CONSUMPTION
COVERED SOURCE PERMIT NO. 0255-01-C
(PAGE 1 OF 6)

Issuance Date: **Expiration Date: February 27, 2011**

In accordance with the HAR, 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 Reporting Period: _____ Date: _____

Company Name: Covanta Honolulu Resource Recovery Venture (CHRRV)

Facility Name: H-POWER Municipal Waste Combustor Facility

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): _____

1. Report the monthly auxiliary fuel consumption for the 900 ton per day mass-burn MWC boiler for each fuel fired:

Month	Auxiliary Fuel Consumption for Month (gallons)			Maximum Auxiliary Fuel Firing Rate (gallons/hour)
	Fuel Oil No. 2	Used Cooking Oil	Total Combined Fuel Oil No.2 and Used Cooking Oil 12-Month Rolling Basis	
January				
February				
March				
April				
May				
June				
July				
August				
September				
October				
November				
December				

MONITORING REPORT FORM
MWC BOILER FUEL CONSUMPTION
COVERED SOURCE PERMIT NO. 0255-01-C
(CONTINUED, PAGE 2 OF 6)

Issuance Date: **Expiration Date: February 27, 2011**

2. Report the monthly auxiliary fuel consumption for the 854 ton per day RDF MWC boiler (serial no. 28185-01) as follows:

Month	Auxiliary Fuel Consumption for Month (gallons)				Maximum Auxiliary Fuel Firing Rate (gallons/hour)
	Fuel Oil No. 2	Used Cooking Oil	Specification Used Oil	Total Combined Fuel Oil No.2, Used Cooking Oil, and Specification Used Oil 12-Month Rolling Basis	
January					
February					
March					
April					
May					
June					
July					
August					
September					
October					
November					
December					

MONITORING REPORT FORM
MWC BOILER FUEL CONSUMPTION
COVERED SOURCE PERMIT NO. 0255-01-C
(CONTINUED, PAGE 3 OF 6)

Issuance Date: **Expiration Date: February 27, 2011**

3. Report the monthly auxiliary fuel consumption for the 854 ton per day RDF MWC boiler (serial no. 28185-02) as follows:

Month	Auxiliary Fuel Consumption for Month (gallons)				Maximum Auxiliary Fuel Firing Rate (gallons/hour)
	Fuel Oil No. 2	Used Cooking Oil	Specification Used Oil	Total Combined Fuel Oil No.2, Used Cooking Oil, and Specification Used Oil 12-Month Rolling Basis	
January					
February					
March					
April					
May					
June					
July					
August					
September					
October					
November					
December					

MONITORING REPORT FORM
MWC BOILER FUEL CONSUMPTION
COVERED SOURCE PERMIT NO. 0255-01-C
(CONTINUED, PAGE 4 OF 6)

Issuance Date: **Expiration Date: February 27, 2011**

4. Report the total combined monthly spec used oil auxiliary fuel consumption for the 854 ton per day RDF MWC boilers (serial nos. 28185-01 and 28185-02) as follows:

Month	Auxiliary Fuel Consumption for Month (gallons)		
	Specification Used Oil		Total Combined Specification Used Oil 12 Month Rolling Basis
	serial no. 28185-01	serial no. 28185-02	serial nos. 28185-01 & 28185-02
January			
February			
March			
April			
May			
June			
July			
August			
September			
October			
November			
December			

5. Report the maximum percent sulfur content for the fuel oil No. 2 auxiliary fuel fired by the MWC boilers as follows:

Unit	Capacity (tons per day)	Maximum % Sulfur Content by Weight	Fuel Oil No. 2 Consumption (gallons/yr)
Mass-Burn MWC Boiler	900		
RDF MWC Boiler (serial no. 28185-01	854		
RDF MWC Boiler (serial no. 28185-02)	854		

MONITORING REPORT FORM
MWC BOILER FUEL CONSUMPTION
COVERED SOURCE PERMIT NO. 0255-01-C
(CONTINUED, PAGE 5 OF 6)

Issuance Date: **Expiration Date: February 27, 2011**

6. Report the maximum pollutant concentrations in the table below from the specification used oil auxiliary fuel fired by the 854 ton per day RDF MWC boilers (serial nos. 28185-01 and 28185-02) as follows:

Pollutant	Maximum Concentration (ppm)	Maximum % by Weight	Notes
Sulfur	N/A		
Arsenic		N/A	
Cadmium			
Chromium			
Lead			
Total Halogens			
PCBs			

7. Report all incidences when the 900 ton per day mass-burn MWC boiler was fired on a fuel other than fuel oil No. 2 during warm-up periods as follows:

Exceedance Date	Type of Fuel Fired Other Than Fuel Oil No. 2 During Warm-up	Reason for Other Fuel/Final Outcome/Corrective Actions

MONITORING REPORT FORM
MWC BOILER FUEL CONSUMPTION
COVERED SOURCE PERMIT NO. 0255-01-C
(CONTINUED, PAGE 6 OF 6)

Issuance Date: **Expiration Date: February 27, 2011**

8. Report all incidences when the 900 ton per day mass-burn MWC boiler was fired on a fuel other than fuel oil No. 2 and MSW during start-up periods as follows:

Exceedance Date	Type of Fuel Fired Other Than Fuel Oil No. 2 and MSW During Start-up	Reason for Other Fuel/Final Outcome/Corrective Actions

9. Report all incidences when the 900 ton per day mass-burn MWC boiler was fired on a fuel other than fuel oil No. 2 and MSW during shut-down periods as follows:

Exceedance Date	Type of Fuel Fired Other Than Fuel Oil No. 2 and MSW During Shut-down	Reason for Other Fuel/Final Outcome/Corrective Actions

MONITORING REPORT FORM
MWC BOILER OPERATION
COVERED SOURCE PERMIT NO. 0255-01-C
(PAGE 1 OF 7)

Issuance Date: **Expiration Date: February 27, 2011**

In accordance with the HAR, 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 Reporting Period: _____ Date: _____

Company Name: Covanta Honolulu Resource Recovery Venture (CHRRV)

Facility Name: H-POWER Municipal Waste Combustor Facility

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): _____

1. Identify the following for each 854 ton per day RDF MWC boiler and the 900 ton per day mass-burn MWC boiler:

a. Boiler Serial No.: _____

b. All incidences when 3 hour start-up, shut-down, or malfunction durations were exceeded:

Exceedence		Duration (hours)			Reason for Exceedence/Final Outcome/Corrective Actions
Date	Time	Start-up	Shut-down	Malfunction	

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MONITORING REPORT FORM
MWC BOILER OPERATION
COVERED SOURCE PERMIT NO. 0255-01-C
(CONTINUED, PAGE 2 OF 6)

Issuance Date: **Expiration Date: February 27, 2011**

c. All incidences when 3 hour start-up, shut-down, or malfunction durations were exceeded (continued):

Exceedance		Duration (hours)			Reason for Exceedance/Final Outcome/Corrective Actions
Date	Time	startup	shut-down	malfunction	

d. All incidences when operating the boilers greater than 15 hours during malfunction if a loss of boiler water level control or loss of combustion air control is determined to be the malfunction:

Exceedance Date	Malfunction Duration (hours)	Reason for Exceedance/Final Outcome/Corrective Actions

e. All incidences when warm-up periods exceeded 12 hours in duration:

Exceedance Date	Warm-up Duration (hours)	Reason for Exceedance/Final Outcome/Corrective Actions

2. Identify for the 900 ton per day mass-burn MWC boiler the following:

a. Boiler Serial No.: _____

b. All incidences when the 8-hour block average activated carbon mass feed rate, as determined in Attachment IIA, Special Condition No. D.8.c, is lower than the feed rate established during the most recent performance test of the MWC boiler demonstrating compliance with the mercury and dioxin/furan emission limits:

Deviation Date	Activated Carbon Mass Feed Rate (lb/hr)	Reason for Violation/Final Outcome/Corrective Actions

c. All incidences when the carbon mass feed rate, as determined in Attachment IIA, Special Condition No. D.8.d, is lower than the feed rate established during the most recent performance test of the MWC boiler demonstrating compliance with the mercury and dioxin/furan emission limits:

Deviation Date	Activated Carbon Mass Feed Rate (lb/hr)	Reason for Violation/Final Outcome/Corrective Actions

d. All incidences when the carbon mass feed rate, as determined in Attachment IIA, Special Condition No. D.8.e, is lower than the feed rate established during the most recent performance test of the MWC boiler demonstrating compliance with the mercury and dioxin/furan emission limits:

Deviation Date	Activated Carbon Mass Feed Rate (lb/hr)	Reason for Violation/Final Outcome/Corrective Actions

MONITORING REPORT FORM
MWC BOILER OPERATION
COVERED SOURCE PERMIT NO. 0255-01-C
(CONTINUED, PAGE 5 OF 6)

Issuance Date: **Expiration Date: February 27, 2011**

e. All excursions of the indicator range to ensure compliance with the emission limit for fluorides and H_2SO_4 pursuant to Attachment IIA, Special Condition No. D.11.a.i:

Excursion Date	SO_2 (24- hour daily geometric average)		Reason for Excursion/Final Outcome/Corrective Actions
	Emission (ppmdv)	% Reduction	

f. All excursions of the indicator range to ensure compliance with the emission limit for fluorides and H_2SO_4 pursuant to Attachment IIA, Special Condition No. D.11.a.ii:

Excursion Date	Lime Slurry Feed Rate (1-hour average)	Reason for Excursion/Final Outcome/Corrective Actions
	Gallons per Minute	

MONITORING REPORT FORM
MWC BOILER OPERATION
COVERED SOURCE PERMIT NO. 0255-01-C
(CONTINUED, PAGE 6 OF 6)

Issuance Date: **Expiration Date: February 27, 2011**

g. All excursions of the indicator range to ensure compliance with the emission limit for PM, PM_{10}, $PM_{2.5}$, and MWC metals pursuant to Attachment IIA, Special Condition No. D.11.b:

Excursion Date	Percent Opacity	Reason for Excursion/Final Outcome/Corrective Actions

3. For each boiler, provide a summary of alternate operating scenarios implemented during the reporting period. For the summary, provide the boiler serial number, statement indicating whether or not applicable permit requirements have been met. Attach any supporting data as required by Attachment IIA, Special Condition No. C.12. and Attachment IIB, Special Condition No. B.2i:

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MONITORING REPORT FORM
WASTE PROCESSING FACILITY BAGHOUSES
COVERED SOURCE PERMIT NO. 0255-01-C

Issuance Date: **Expiration Date: February 27, 2011**

In accordance with the HAR, 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 Reporting Period: _____ Date: _____
Company Name: Covanta Honolulu Resource Recovery Venture (CHRRV)
Facility Name: H-POWER Municipal Waste Combustor Facility

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): _____

1. Report the maximum and minimum pressure drop for each baghouse during the reporting period:

Unit	Unit Number	Pressure Drop (inches of water)	
		Minimum	Maximum
Primary Shredder Baghouse			
Primary Shredder Baghouse			
Secondary Shredder Baghouse			
Secondary Shredder Baghouse			

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MONITORING REPORT FORM
COOLING TOWERS
COVERED SOURCE PERMIT NO. 0255-01-C

Issuance Date: **Expiration Date: February 27, 2011**

In accordance with the HAR, 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 Reporting Period:_____ Date: _____
Company Name: Covanta Honolulu Resource Recovery Venture (CHRRV)
Facility Name: H-POWER Municipal Waste Combustor Facility

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):_____

1. Report the maximum dissolve solids content of the recirculation water for the cooling towers during the reporting period:

Unit	Unit Number	Maximum Dissolved Solids Content of Recirculation Water (ppm)
3-Cell Cooling Tower		
5-Cell Cooling Tower		

COMPLIANCE ASSURANCE MONITORING PLAN
FLUORIDES AND SULFURIC ACID MIST
COVERED SOURCE PERMIT NO. 0255-01-C
(PAGE 1 OF 2)

Issuance Date: **Expiration Date: February 27, 2011**

I. Background

A. Emissions Unit

EfW Unit 3

B. Applicable Regulation, Emission Limit, and Monitoring Requirements

Regulation:	BACT (PSD-Major modification to CSP No. 0255-01-C for Combustor No. 3)
Emission Limits:	Fluorides – 3.5 ppmdv @7% O_2 Sulfuric Acid Mist – 5 ppmdv @7% O_2
Pre CAM Monitoring Requirements:	None (new unit)

C. Control Technology

Spray Dryer Absorber/ Fabric Filter

II. Monitoring Approach

A. Indicators

1. Lime slurry feed rate (gpm) measured by CMS on a continuous basis.
2. SO_2 concentration measured at the stack by CEMS on a continuous basis.

B. Measurement Approach

1. Presumptive acceptable continuous monitoring of lime slurry inlet feed rate at the spray dryer absorber.
2. Presumptive acceptable continuous emissions monitoring of SO_2 at outlet.

C. Indicator Ranges

1. An excursion is defined as a lime slurry feed rate in gallon per minute that is less than the minimum lime slurry feed rate established during most recent boiler performance test that shows compliance with the applicable emission limit for fluorides and sulfuric acid mist.

2. An excursion is defined as an SO_2 emission that is greater than 26 ppmdv or less than 80% reduction @ 7% O_2 over a 24-hour daily geometric average during normal operations (i.e., boiler operation other than warm-up, start-up, shut-down, and malfunction).

D. Performance Criteria

Data Representativeness:	1. Lime slurry feed rate monitors will be installed and maintained in accordance with manufacturer's instructions. 2. SO_2 CEM will be installed and maintained in accordance with manufacturer's instructions and CEM guidelines at 40 CFR 60 Appendix B, PS-2.
Verification of Operational Status:	1. Completion of the manufacturer's written requirements for installation, operation, and calibration of the lime slurry feed rate monitors. 2. Completion of the manufacturer's written requirements for installation, operation, and calibration of the SO_2 CEM and 40 CFR Part Appendices B and F.
QA/QC Practices and Criteria:	1. The lime slurry feed rate monitors will be calibrated and maintained in accordance with good practices. 2. The SO_2 CEM will be calibrated and maintained in accordance with 40 CFR Part 60 Appendices B and F. (Daily calibration/RATA).
Monitoring Frequency:	1. Lime slurry feed rate will be monitored continuously 2. SO_2 concentration will be monitored continuously.
Data Collection Procedures:	1. lime slurry feed rate will be recorded continuously. 2. SO_2 concentration will be recorded continuously.
Averaging Period:	1. 4-hour arithmetic average lime slurry feed rate. 2. 24-hour geometric average for SO_2 concentration.

COMPLIANCE ASSURANCE MONITORING PLAN
PM, PM_{10}, $PM_{2.5}$ AND MWC METALS
COVERED SOURCE PERMIT NO. 0255-01-C
(PAGE 1 OF 2)

Issuance Date: **Expiration Date: February 27, 2011**

I. Background

A. Emissions Unit

EfW Unit 3

B. Applicable Regulation, Emission Limit, and Monitoring Requirements

Regulation:	BACT (PSD-Major modification to CSP No. 0255-01-C for Combustor No. 3)
Emission Limits:	PM (filterable only) – 12 mg/dscm @7% O_2 PM_{10} (filterable + condensable) – 32 mg/dscm @7% O_2 $PM_{2.5}$ (filterable + condensable) – 30 mg/dscm @7% O_2 MWC Metals (as PM filterable only) – 12 mg/dscm @7% O_2

Pre CAM Monitoring Requirements: None (new unit)

C. Control Technology

Spray Dryer Absorber/ Fabric Filter

II. Monitoring Approach

A. Indicators

Percent opacity measured by COMS on a continuous basis.

B. Measurement Approach

Presumptive acceptable continuous monitoring opacity at stack outlet.

C. Indicator Range

Excursions for particulate and MWC metals are incidences when the opacity during normal boiler operation (i.e., boiler operation except for warm-up, start-up, shutdown, and malfunction), as measured by the COMS, exceeds 7% on a one hour average basis for three consecutive hours.

D. Performance Criteria

Data Representativeness:	COMS will be installed and maintained in accordance with manufacturer's instructions and COMS guidelines in 40 CFR Part 60, §60.13 and Appendix B, PS-1.
Verification of Operational Status:	Completion of the manufacturer's written requirements for installation, operation, and calibration of the COMS and 40 CFR Part 60, Appendix B.
QA/QC Practices and Criteria:	The COMS will be calibrated and maintained in accordance with 40 CFR Part 60 Appendix B.
Monitoring Frequency:	Percent opacity will be monitored continuously.
Data Collection Procedures:	Percent opacity will be recorded continuously.
Averaging Period:	Percent opacity averaged over 6-minute period.