PROPOSED

Issue Date

CERTIFIED MAIL 13-xxxE CAB
RETURN RECEIPT REQUESTED File No. 0255
(xxxx xxxx xxxx xxxx xxxx)

Mr. Robert A. Webster
Facility Manager
Covanta Honolulu Resource Recovery
Venture (CHRRV)
Honolulu Program of Waste Energy
Recovery (H-POWER)
91-174 Hanua Street
Kapolei, Hawaii 96707-1735

Dear Mr. Webster:

Subject: Covered Source Permit (CSP) No. 0255-02-C
Application for Significant Modification No. 0255-08
CHRRV/H-POWER
H-POWER Mass-Burn 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: April 23, 2017

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 on March 23, 2012, and the additional information received on July 2 and August 23, 2012 and April 1 and 19, 2013. The conditions of this permit supersede all conditions contained in all prior permits. A receipt for the application filing fee of $1,000.00 is enclosed.

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

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

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

Compliance Certification Form
Excess Emissions and Monitoring System Performance Summary Report - CEMS
Excess Emissions and Monitoring System Performance Summary Report - COMS
Excess Emissions and Monitoring System Performance Summary Report - Boiler Combustion Temperature CMS
Excess Emissions and Monitoring System Performance Summary Report - Boiler Operating Load CMS
Excess Emissions and Monitoring System Performance Summary Report - Baghouse Inlet Temperature CMS
Excess Emissions and Monitoring System Performance Summary Report - CERMS
Annual Emissions Report Form: Mass-Burn MWC Boiler
Annual Emissions Report Form: Cooling Tower
Annual Emissions Report Form: Odor Control System
Monitoring Report Form: Mass-Burn MWC Boiler Fuel Consumption
Monitoring Report Form: Mass-Burn MWC Boiler Operation
Monitoring Report Form: Cooling Tower
Monitoring Report Form: H_2S Monitoring

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,

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

MM:smk
Enclosures

c: CAB Monitoring Section

PROPOSED

ATTACHMENT I: STANDARD CONDITIONS
COVERED SOURCE PERMIT NO. 0255-02-C

Issuance Date: **Expiration Date: April 23, 2017**

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 a covered source covered by this permit**, the discontinuance shall be reported in writing to the Department of Health by a responsible official of the source.

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

25. Each permit renewal application shall be submitted to the Department of Health and the U.S. EPA, Region 9, no less than twelve (12) months and no more than eighteen (18) months prior to the permit expiration date. The 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
    State of 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)

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

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

PROPOSED

ATTACHMENT II: SPECIAL CONDITIONS
COVERED SOURCE PERMIT NO. 0255-02-C

Issuance Date: **Expiration Date: April 23, 2017**

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

Section A. Equipment Description

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

   a. 900 ton per day Martin mass-burn waterwall municipal waste combustor (MWC) boiler, model no. WHB128.6-6.3/445-B, serial no. 300-1-1 with Covanta Very Low NO_X (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:

      i. Lechler, Inc., selective non-catalytic reduction (SNCR) system, model no. 801.001-74-00.00.0, serial no. AQ-AT-301 through AQ-AT-306, with 70.1 gallon per minute (gpm) aqueous ammonia (19.2%) flow rate and six (6) injection nozzles, with each injection nozzle providing 11.7 gallon per hour (gph) aqueous ammonia;
      ii. SPE-AMEREX spray dryer absorber, model no. 900, serial no. D0405, with 3,300 lb/hr maximum $Ca(OH_2)$ injection and 40 gpm reagent flow rate;
      iii. SPE-AMEREX powdered activated carbon injection system, model no. K-ML-D5-KT-20, serial no. D-1064718, with 10 lb/hr-112.5 lb/hr activated carbon feed rate;
      iv. Lime injection system servicing spray dryer absorber; and
      v. SPE-AMEREX pulse jet baghouse, serial no. 1925, with 8 modules, 361 bags per module, and 9,073 ft^3, per module.

   b. 3,600 ft^3 Schwing Bioset sewage sludge receiving station, with (15' x 15' x 16' deep) receiving bin, sewage bin cover, 12' x 12' grizzly, twin auger screw feeders, two (2) model no. 440L piston pumps, Martin distribution header, and Martin feed chute with twenty (20) sewage sludge injection nozzles.
   c. 5,000 ft^3/min Biorem odor control system servicing the sludge receiving station with bio-tower odor abatement system.
   d. 2-cell Midwest induced draft counter flow cooling tower, model no. CLT4242-3005-2, with 29,000 gallon per minute recirculation water flow rate and 0.0005% drift rate.

   (Auth.: HAR §11-60.1-3)

2. The permittee shall permanently attach an identification tag or name plate on the 900 ton per day mass-burn MWC boiler, SNCR system, powdered activated carbon injection system, spray dryer absorber, fabric filter baghouse, and cooling tower 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 Code of Federal Regulations (CFR) Part 52, §52.21, Prevention of Significant Deterioration of Air Quality;
    b. 40 CFR Part 58, Ambient Air Quality Surveillance;
    c. 40 CFR Part 60, New Source Performance Standards (NSPS), Subpart A, General Provisions;
    d. 40 CFR Part 60, NSPS, 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;
    e. 40 CFR Part 60, NSPS, Subpart O, Standards of Performance for Sewage Treatment Plants;
    f. 40 CFR Part 61, National Emission Standards for Hazardous Air Pollutants (NESHAP), Subpart A, General Provisions;
    g. 40 CFR Part 61, NESHAP, Subpart E, National Emission Standard for Mercury;
    h. 40 CFR Part 64, Compliance Assurance Monitoring;
    i. 40 CFR Part 70, State Operating Permit Program;
    j. 40 CFR Part 82, Protection of Stratospheric Ozone; and
    k. 40 CFR Part 98, Mandatory Greenhouse Gas Reporting.

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. Boiler Fuel Limits

    a. Except as provided in Attachment II, Special Condition Nos. C.1.d and C.13, the mass-burn MWC boiler shall be fired only on municipal solid waste (MSW) and fuel oil No. 2.
    b. The maximum sulfur content of fuel oil No. 2 auxiliary fired by the mass-burn MWC boiler shall not exceed 0.05% by weight.
    c. The mass-burn MWC boiler may be fired on specification used oil and used cooking oil auxiliary fuels in accordance with Attachment II, Special Condition No. C.13 when combusting MSW.
    d. The mass-burn boiler may be fired on mechanically dewatered sewage sludge and dried sewage sludge pellets from Hawaii publicly owned treatment works or waste water treatment plants when combusting MSW. For firing MSW with mechanically dewatered sewage sludge and dried sewage sludge pellets, the total combined sewage sludge burn rate shall not exceed the following on a dry basis:

i. 100 dry tons per day; and
ii. 30,000 dry tons in any rolling twelve-month (12-month) period.

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

a. Except as provided in Attachment II, Special Condition No. C.2.e, 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.
b. A warm-up period is when the boiler is combusting fuel oil No. 2, with the intent to feed MSW, and no MSW is being fed to the combustor. The duration of warm-up periods for the mass-burn MWC boiler shall not exceed twelve (12) hours at a time.
c. A start-up period commences when the boiler begins the continuous burning of MSW and does not include any warm-up period. 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.
d. Shut-down commences when the MSW feed is stopped and fuel oil No. 2 is added to burn the remaining MSW in the boiler, except that fuel oil No. 2 does not need to be fed in the event of boiler watertube failure or loss of water in the unit.
e. For purposes of compliance with the carbon monoxide emissions limit specified in Attachment II, Special Condition No. C.8.e, 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.
f. Except for compliance calculations for opacity and the emission limits specified in Attachment II, 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 for standards regulated under 40 CFR Part 60, Subpart Eb, shall be dismissed or excluded from compliance calculations, but shall be recorded and reported pursuant to Attachment II, Special Condition No. D.14. Monitoring data to determine compliance with the limits specified in Attachment II, Special Condition Nos. C.8.a, C.8.b, C.8.c, C.8.f, and C.9 shall not be excluded from compliance calculations.
g. Attachment II, Special Condition Nos. C.3, C.6.a, C.7.a, and C.8.e are not applicable during warm-up, start-up, shut-down, and malfunction.

(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. Boiler Combustion Temperature

   In any four (4) hour block arithmetic average, except during warm-up, start-up, shut-down, 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 Controls and Measures

   a. For combusting MSW, the permittee shall continuously operate and maintain the following air pollution controls to minimize air emissions from the mass-burn MWC boiler:

      i. Covanta VLN system;
      ii. SNCR system;
      iii. Powdered activated carbon injection system;
      iv. Lime injection system;
      v. Spray dryer absorber; and
      vi. Fabric filter baghouse.

   b. All air pollution controls shall be fully functional and operational at all times for combusting MSW.
   c. The flue gas temperature at the spray dryer absorber inlet shall be at least 250 ^{o}F prior to combusting MSW to minimize corrosion of spray dryer absorber components.
   d. Odorous gases from the sewage sludge receiving station shall be drawn into the boiler combustion air and incinerated whenever the mass-burn boiler is in operation.
   e. Odor control and bio-tower odor abatement systems shall operate at all times the sludge receiving station is in operation.
   f. The sewage sludge receiving bin cover at the sludge receiving station shall remain closed, except when receiving sewage sludge or during maintenance.
   g. Sewage sludge haul trucks shall deliver the sewage sludge inside covered roll-off containers.
   h. The exterior and interior of the body of vehicles delivering sewage sludge shall be washed down at the wash-down area as often as needed to ensure against the accumulation of sewage sludge for the prevention of odors.

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

5. Boiler Operating Loads

   a. The four-hour (4-hour) block arithmetic average load of the boiler shall not be greater than 110% of the highest four-hour (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. Determination of boiler load shall be based on steam or feedwater flow rate.
   c. Attachment II, Special Condition No. C.5.a, is not applicable during the dioxin/furan or mercury performance test, two (2) weeks preceding the dioxin/furan or mercury performance test, and as provided in Attachment II, Special Condition No. C.5.d.
   d. The 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 four-hour (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 four-hour (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 II, Special Condition No. C.6.a, is not applicable during boiler warm-up, start-up, shut-down, and malfunction, the dioxin/furan or mercury performance test, two (2) weeks preceding the dioxin/furan or mercury performance test, and as provided in Attachment II, 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. Carbon Injection System Feed Rate

   a. In any eight-hour (8-hour) block average, the activated carbon mass feed rate in pounds per hour for the carbon injection system shall equal or exceed the carbon mass feed rate established during the most recent performance test of the mass-burn boiler demonstrating compliance with the mercury and dioxin/furan emission limits specified in Attachment II, Special Condition No. C.8.e.
   b. Attachment II, Special Condition No. C.7.a, is not applicable during boiler warm-up, start-up, shut-down and malfunction, the dioxin/furan or mercury performance test, two (2) weeks preceding the dioxin/furan or mercury performance test, and as provided in Attachment II, 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. Boiler Emission Limits

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

Pollutant	Maximum Emission Limit[1]
SO_2	102 lbs
CO	72 lbs
NO_x	346 lbs

Table Note:

1. Total pounds of pollutant over entire warm-up period. Each warm-up period is limited to twelve (12) hours.

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

Pollutant	Maximum Emission Limit[1]
SO_2	98 lbs
CO	414 lbs
NO_x	579 lbs

Table Note:

1. Total pounds of pollutant over entire start-up period. Each start-up period is limited to three (3) hours.

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

Pollutant	Maximum Emission Limit[1]
SO_2	98 lbs
CO	414 lbs
NO_x	579 lbs

Table Note:

1. Total pounds of pollutant over entire shut-down period. Each shut-down period is limited to three (3) hours.

d. For the applicable limits specified in Attachment II, Special Condition Nos. C.8.b and C.8.c, a minimum concentration of 5.0% Carbon Dioxide (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.

e. 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_2	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. Twenty four-hour (24-hour) daily geometric average emissions limit.
5. Three-hour (3-hour) block arithmetic average.
6. Twenty four-hour (24-hour) daily arithmetic average.
7. Four-hour (4-hour) block arithmetic average.
8. Thirty-day (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).

f. The boiler shall be in compliance with Attachment II, Special Condition No. C.8.e and the following additional emission limits when combusting MSW with mechanically dewatered sewage sludge and dried sewage sludge pellets:

Pollutant		Maximum Emission Limit[1]
PM		0.65 grams/kilogram dry sludge input (1.30 lb/ton dry sludge input)
Mercury	24-hour[1]	3,200 grams (7.1 lb)[1]

Table Note:

1. Twenty four-hour (24-hour) period.

(Auth.: HAR §11-60.1-3, §11-60.1-5, §11-60.1-90; 40 CFR §52.21, §60.52b, §60.152, §61.52, Part 75 Appendix F)[1]

9. Boiler Opacity Limits

The mass-burn MWC boiler shall not exhibit 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 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 and Odors

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 (e.g., nine (9) minutes per three (3) hour period).
d. The fugitive emission limit specified in Attachment II, 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 II, Special Condition No. C.10.c does not apply to:

i. Visible emissions discharged inside buildings or enclosures of an ash conveying system; and
ii. During maintenance and repair of an ash conveying system.

f. The H_2S concentration at all property lines of the H-POWER facility shall not exceed twenty-five (25) parts per billion (ppb) or thirty-five (35) micrograms per cubic meter (ug/m^3) in any one (1) hour period.
g. The permittee shall not allow the emission of odorous matter or other fugitive or stack emissions so as to create nuisance conditions off the property boundary of the facility. Nuisance conditions will be verified by the Department of Health. The creation of nuisance conditions may, in addition to any other action the Department of Health may take, result in a permit modification to require a compliance schedule to control the nuisance conditions.

(Auth.: HAR §11-59-4, §11-60.1-3, §11-60.1-33, §11-60.1-90, §11-60.1-161; 40 CFR §52.21, §60.55b)[1]

11. 2-Cell Cooling Tower

a. The total dissolved solids (TDS) content of the recirculation water from the 2-cell cooling tower shall not exceed 85,000 ppm.
b. The cooling tower shall not be operated with chromium-based water treatment chemicals. Chromium-based water treatment chemicals are any combination of chemical substances containing chromium used to treat recirculation water.

(Auth.: HAR §11-60.1-3, §11-60.1-5, §11-60.1-90, §11-60.1-161; 40 CFR §63.400)

12. Operation and Maintenance

The permittee must operate and maintain the mass-burn MWC boiler, 2-cell cooling tower, ash handling system, sludge receiving station, air pollution controls, 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]

13. Alternate Operating Scenario

a. The boiler may combust supplemental waste defined as discrete deliveries of waste components normally found in non-hazardous solid waste, 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 II, Special Condition Nos. C.8 and C.9. The following are supplemental wastes and conditions that apply to this alternate operating scenario:

i. 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. Also included in Commodity waste are confidential documents and electronic media.

ii. 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. Waste can either be final formulation, intermediate, or raw materials used in the pharmaceutical process.

iii. Manufacturing Wastes – Waste generated as a result of industrial and manufacturing processes. This category of waste includes, but is not limited to, 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.

iv.a. Oily Wastes – Include any of the following waste categories: (1) filters, (2) solid wastes containing "virgin oil;" and (3) solid wastes containing used oil. The acceptable 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. Filters shall only be accepted if classified as non-hazardous, punctured, and drained of free liquids (40 CFR Part 261). Solid wastes containing "virgin oil" shall only be accepted if certified as a non-hazardous waste and if the waste contains no free liquids.

iv.b. Oily Wastes – 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). Used oil waste containing equal to or greater than two (2) ppm of polychlorinated biphenyls (PCBs) shall not be accepted.

v. Used Cooking Oil – Oil generated primarily by, but not limited solely to, restaurants. The used cooking oil shall be transported and decanted by contractors to remove water and particles.

vi. Triple-Rinsed Containers – Waste containers, including but not limited to, containers comprised primarily of high density polyethylene (HDPE) plastic and may include polystyrene and polyurethane containers. The containers 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 less stringent. The supplier shall provide a statement certifying that the containers were triple-rinsed according to acceptable rinsing methods.

vii. Tires and Automobile Shredder Residue – Tire and automobile shredder residue are both considered Hawaii Special Wastes and shall be managed as such. Tires shall be blended with other MSW prior to charging the mass-burn 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.

viii. 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, but are not limited to bandages, dressings, syringes/sharps, 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.

ix. 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 mass-burn boiler may combust specification used oil. For firing the boiler on specification used oil, the following shall apply:

i. The permit conditions prescribed herein may be revised at any time by the Department of Health to reflect state or federal promulgated rules on used oil;

ii. 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;

iii. This permit does not authorize the permittee to burn hazardous waste. The permittee shall not burn the used oil if it is declared to be hazardous waste. The Department of Health shall be contacted to determine the proper disposal method for each used oil delivery determined to be hazardous waste;

iv. The specification used oil fired by the mass-burn MWC boiler shall meet the following limits:

Constituent/Property	Limit
Arsenic	≤ 5 ppm
Cadmium	≤ 2 ppm
Chromium	≤10 ppm
Lead	≤ 100 ppm
Total Halogens	≤ 1,000 ppm
Sulfur	≤ 0.5% by weight
Flash Point	≥ 100 ^{O}F
PCBs	< 2 ppm

v. Used oil generated within the H-POWER facility may be burned in accordance with the conditions specified in this alternate operating scenario;

vi. Used oil may be obtained from sources other than the H-POWER facility, provided a written notification identifying the new source is submitted to the Department of Health in accordance with Attachment II, Special Condition No. E.13;
vii. Used oil shall be sampled and analyzed before the fuel is fired by the mass-burn MWC boiler. The used oil shall not be fired by the boiler unless laboratory analysis of the used oil indicates compliance with Attachment II, Special Condition No. C.13.b.iv. Used oil samples shall be taken in such a manner that sampling is representative of the used oil collected; and
viii. The Department of Health shall be contacted to determine the proper disposal method for each used oil delivery that exceeds limits specified in Attachment II, Special Condition No. C.13.b.iv.

c. 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)

14. 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:

a. 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
b. Have completed full certification or shall have scheduled a full certification exam with American Society of Mechanical Engineers (ASME) Qualification and Certification of Resource Recovery Facility Operators (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]

15. 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 II, Special Condition No. C.14(b), 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 II, Special Condition No. C.14(b). Attachment II, Special Condition C.15, 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:

a. 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.
b. When the certified chief facility operator and certified shift supervisor are off-site for more than twelve (12) hours, but for two (2) 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).
c. When the certified chief facility operator and certified shift supervisor are off-site for more than two (2) 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:

    i. 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.
    ii Submit a status report and corrective action summary to the Department of Health every four (4) 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.
    iii. 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]

16. 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 mass-burn 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:

    i. A summary of the applicable standards under 40 CFR Part 60, Subpart Eb;
    ii. A description of the basic combustion theory applicable to a mass-burn MWC boiler;
    iii. Procedures for receiving, handling, and feeding MSW;

iv. Mass-burn MWC boiler warm-up, start-up, shut-down, and malfunction procedures;
v. Procedures for maintaining proper combustion air supply levels;
vi. Procedures for operating the mass-burn MWC boiler within the standards of 40 CFR Part 60, Subpart Eb;
vii. Procedures for responding to periodic upset or off-specification conditions;
viii. Procedures for minimizing particulate carryover;
ix. Procedures for handling ash;
x. Procedures for monitoring the mass-burn MWC boiler emissions; and
xi. 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 II, Special Condition No. C.16.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]

17. 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:

a. 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;
b. Have access to and copy, at reasonable times, records required to be kept under the terms and conditions of the permit;
c. Inspect any equipment, operation, or method required in the permit; and
d. 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. Boiler 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 (1) 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 CO_2). Compliance with the applicable SO_2 emissions 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 emissions limits shall be determined as follows:

      i. Hourly averages shall be obtained for 90% of the operating hours per calendar quarter and 95% of the operating days per calendar year;
      ii. At least two (2) data points per hour shall be used to calculate each one-hour (1-hour) arithmetic average (e.g., at least one [1] data point in two [2] fifteen-minute [15-minute] periods per hour);
      iii. Each one (1) hour arithmetic average NO_X, SO_2, and CO concentration shall be corrected to seven (7) percent oxygen on an hourly basis using the one-hour (1-hour) arithmetic average of O_2 (or CO_2) CEMS data;
      iv. The one-hour (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 (ppm) corrected to seven (7) percent oxygen (dry basis) and used to calculate the percent reductions and emission concentrations as applicable for annual, thirty-day (30-day), twenty four-hour (24-hour), four-hour (4-hour), and three-hour (3-hour) averaging periods. The one-hour (1-hour) arithmetic averages shall be calculated using data points required under §60.13(e)(2) of 40 CFR Part 60, Subpart A;
      v. 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 II, Special Condition No. D.3.a.i are not met;
      vi. Procedures under 40 CFR §60.13 shall be followed for installation, evaluation, and operation of the CEMS; and

vii. 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 Part 60, 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.

b. 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 thirty (30) to sixty (60) minute period) by both CEMS and the following test methods:

i. For NO_X, EPA Reference Method 7, 7A, 7C, 7D, or 7E;
ii. For SO_2, EPA Reference Method 6, 6A, 6C, or an alternative ASME PTC-19-1-1981-Part 10 Method;
iii. For CO, EPA Reference Method 10, 10A, or 10B; and
iv. For O_2 (or CO_2) EPA Reference Method 3, 3A, 3B, or an alternative ASME PTC-19-10-1981-Part 10.

c. The CEMS span value of the oxygen (or 20% CO_2) monitor shall be 25% O_2 (or 20% CO_2).
d. The CEMS span value shall be 125% of the maximum estimated hourly potential NO_X and CO emissions of the mass-burn boiler.
e. The CEMS span value shall be 125% of the maximum estimated hourly potential SO_2 emissions of the mass-burn boiler at the inlet of the spray dryer absorber. The CEMS span value shall be 50% of the maximum estimated hourly potential SO_2 emissions of the mass-burn boiler at the outlet of the spray dryer absorber.
f. Quarterly cylinder gas audits (CGAs) and daily calibration drift (CD) tests shall be performed in accordance with 40 CFR Part 60, Appendix F. Successive quarterly CGAs shall occur no closer than two (2) months apart.
g. The RATA must be conducted at least once every four (4) calendar quarters.
h. 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 II, Special Condition No. D.3.a.i.
i. The permittee may request that compliance with the NO_X, SO_2, and CO emission limit be determined using carbon dioxide measurements corrected to seven (7) percent oxygen. The relationship between O_2 and CO_2 levels for the mass-burn 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 from the mass-burn MWC boiler to determine compliance with the emission limits specified in Attachment II, 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:

a. The COMS shall be installed, evaluated, and operated in accordance with 40 CFR Part 60, §60.13 and 40 CFR Part 60, Appendix B.
b. The output of the COMS shall be recorded on a six (6) minute average basis.
c. The six (6) minute opacity averages shall be calculated from thirty-six (36) or more data points equally spaced over each six (6) minute period.
d. The COMS shall be in conformance with Performance Specification 1 of 40 CFR Part 60, Appendix B.
e. The COMS must provide for a minimum of ninety (90) percent valid data for each semi-annual calendar period (January 1 – June 30 and July 1 – December 31).

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

6. Boiler Load Level

a. The permittee shall install, calibrate, maintain, and operate a steam flow meter or a feedwater flow meter for the boiler 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 four-hour (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 II, Special Condition No. D.6.a. The recommendations in "American Society of Mechanical Engineers Interim Supplement 19.5 on Instruments and Apparatus: Application, Part II 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. Boiler Combustion and Baghouse Inlet Temperatures

   The permittee shall install, operate, maintain, and calibrate a CMS to measure and record the boiler's combustion temperature (°F) and the baghouse inlet temperature for purposes of determining compliance with the requirements of Attachment II, Special Condition Nos. C.3 and C.6, respectively. The boiler combustion temperature and baghouse inlet temperature shall be determined in four-hour (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 Injection System 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:

      i. The weight of carbon delivered to the plant; and
      ii. 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 eight-hour (8-hour) block period to determine the eight-hour (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 II, 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 II, 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 referenced in Attachment II, Special Condition No. C.16.b.vi.

(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. 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 II, 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)

10. Fugitive Ash 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 ash emissions limit for ash conveying systems as specified in Attachment II, Special Condition No. C.10.c.

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

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 II, Special Condition No. C.8.e 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 II, 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 twenty four-hour (24-hour) daily geometric average or is less than or equal to 80% reduction over any twenty four-hour (24-hour) daily geometric average; and
   ii. The one-hour (1-hour) average lime slurry feed rate, as measured by the CMS, is less than the lime slurry feed rate in gallons per minute measured during 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 limits specified for particulate and MWC metals in Attachment II, Special Condition No. C.8.e. 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, shut-down, and malfunction), as measured by the COMS, exceeds 5% over any one-hour (1-hour) period.

c. The Department of Health reserves the right to require additional monitoring in accordance with Attachment II, Special Condition No. D.11.g, if a failure to achieve compliance with the applicable emissions limit 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 II, 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, all other CMS equipment, and monthly monitoring. These records shall include reasons for such exceedances and/or excursions, a description of corrective actions taken, including the date, time, and duration of an exceedance and/or excursion when:

a. The boiler's combustion temperature is below that specified in Attachment II, Special Condition No. C.3;
b. Operating loads are more than 110% of the highest load established pursuant to Attachment II, Special Condition No. C.5;
c. The baghouse inlet temperature is above that specified in Attachment II, Special Condition No. C.6;
d. The SO_2, NO_X, and CO emission rates, as applicable, are not in compliance with that specified in Attachment II, Special Condition Nos. C.8 and D.11.a.i;
e. Boiler opacity does not comply with that specified in Attachment II, Special Condition No. C.9;
f. Boiler opacity is greater than that specified in Attachment II, Special Condition No. D.11.b, during normal boiler operation;
g. The SO_2 emission rate is greater than that specified in Attachment II, Special Condition No. D.11.a.i; and
h. The lime slurry feed rate is below that specified in Attachment II, 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) concentrations, boiler opacity, steam or feedwater flow rates for boiler load levels, baghouse inlet temperatures, boiler combustion temperatures, lime slurry feed rates, and reasons for excluding the data. 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, §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, boiler opacity, steam or feedwater flow rates for boiler load levels, baghouse inlet temperatures, 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, §60.59b(d)(7))[1]

15. CEMS and CERMS Certification Testing

    a. Records shall be kept on all quarterly cylinder gas audits (CGAs), annual RATAs, and daily CD tests 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, §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 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 and sulfuric acid 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 II, Special Condition No. C.16.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 II, Special Condition No. C.13, 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 II, Special Condition No. C.13.
c. The permitee shall maintain invoices and supplier certifications for each delivery of supplemental waste.
d. The permittee shall maintain invoices and supplier certifications for each delivery of specification used oil.

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

21. Boiler Fuel Consumption

a. A flow measuring device (e.g., weightometer belt scale for dried sewage sludge pellets or revolutions per minute pump speed correlated to actual gallon per minute discharge flow of semi-solid sludge cake) shall be installed, calibrated, maintained, and operated which can be used to determine either the mass or volume of sludge charged to the boiler. The flow measuring device shall be certified by the manufacturer to have an accuracy of ±5 percent over its operating range. The flow measuring device shall be operated continuously and data recorded during all periods of operation of the boiler.
b. The permittee shall provide access to the sludge charged so that a well-mixed representative grab sample of the sludge can be obtained.
c. A weighing device shall be installed, calibrated, maintained, and operated for determining the mass of MSW charged to the boiler when sewage sludge and MSW are combusted together. The weighing device shall have an accuracy of ±5 percent over its operating range.
d. Records shall be maintained on the total tons per year of 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.
e. Records shall be maintained on the total gallons of each auxiliary fuel fired by the mass-burn MWC boiler.
f. A record of sewage sludge suppliers shall be maintained for each delivery of sludge to the H-POWER facility.
g. Records shall be maintained on mercury content (mg/kg dry), percent total solids, and density of the sewage sludge delivered for incineration. The sludge analysis may be performed by the permittee, the sludge supplier, or other qualified third party.

h. Records shall be maintained on the total tons per year of mechanically dewatered sewage sludge and dried sewage sludge pellets fired by the mass-burn boiler. The total tons of sewage sludge on a dry basis shall be determined with the measured volume or mass of sludge recorded by the flow measuring device specified in Attachment II, Special Condition No. D.21.a. Using an analysis of percent total solids and/or sludge density, the quantity of dry sludge charged to the boiler shall be calculated. The flow meter to determine sludge volume or mass shall be maintained and calibrated on an annual basis according to the manufacturer's recommendations.

i. The permittee shall follow a plan approved by the Department of Health to monitor the MSW and sewage sludge feed to the boiler for satisfying the requirements specified in Attachment II, Special Condition Nos. D.21.a, D.21.c, and D.21.h.

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

k. The following records shall be kept for supplemental waste:

   i. Dates when supplemental waste was received;
   ii. Type of supplemental waste received including a detailed waste description;
   iii. Total gallons of used cooking oil received;
   iv. Total tons of supplemental waste received; and
   v. Supplemental waste supplier for each waste received.

l. The permittee shall maintain records on each specification used oil fuel analysis for the fuel stored on-site. At a minimum, these records shall include: sampling date; amount of fuel delivered (gallons); the laboratory report for the fuel analysis; and each supplier's name.

(Auth.: HAR §11-60.1-3, §11-60.1-5, §11-60.1-11, §11-60.1-90; 40 CFR §52.21, §60.153)[1]

22. Post-Construction Ambient Air Quality Monitoring

a. The permittee shall 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 data recovery should be at least eighty (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 direction, and temperature. The meteorological station is intended to gather data other than data at ten (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 eighty (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 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. Cooling Tower Source and Recirculation Water

a. Cooling tower source and recirculation water shall be sampled and analyzed in accordance with the facility's underground injection control permit to determine TDS concentrations and concentrations of volatile organic compounds (VOCs). Cooling tower source and recirculation water shall be analyzed as follows:

i. The TDS in mg/l (mg/l = ppm for solutions of water) shall be determined using EPA Method 160.1 (gravimetric method) at least once every three (3) months.
ii. The total VOC content (mg/l) of organics listed in EPA Method 624 shall be determined at least once every six (6) months using EPA Method 8260 or an equivalent alternative EPA Method.

b. Material Safety Data Sheets (MSDSs) for each additive (e.g., biocide, anti-corrosive agents, etc.) used in the cooling tower recirculation water shall be maintained at the facility.

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

24. H_2S Monitoring

Pursuant to Attachment II, Special Condition No. C.10.g, the permittee may be required to follow an H_2S monitoring plan approved by the Department of Health to determine whether or not compliance is being achieved with Attachment II, Special Condition No. C.10.f.

(Auth.: HAR §11-59-4, §11-60.1-3, §11-60.1-5, §11-60.1-11, §11-60.1-90)

25. Inspection, Maintenance, and Repair Log

An inspection, maintenance, and repair log shall be maintained for the mass-burn MWC boiler, 2-cell cooling tower, ash handling systems, sewage sludge receiving station, air pollution control equipment/systems, and monitoring equipment. At a minimum, these records shall include the date of the inspection/work, name and title of personnel performing the inspection/work, 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,§11-60.1-11, §11-60.1-90)

PROPOSED

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 forty-eight (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 II, 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 II, Special Condition No. C.2.f. The excess emissions and the monitoring system performance report required under §60.7(c) shall include the following:

a. Identification of each period of excess emissions for all:

   i. Annual average, twenty four-hour (24-hour) daily geometric average, and three-hour (3-hour) block average SO_2 emission concentrations;
   ii. Percent reductions in SO_2 emission concentrations;
   iii. Annual average and twenty four-hour (24-hour) daily arithmetic average NO_X emission concentrations;
   iv. Four-hour (4-hour) block arithmetic and thirty-day (30-day) rolling CO emission concentrations;
   v. Four-hour (4-hour) block arithmetic average boiler load levels;
   vi. Pounds of SO_2, CO, and NO_X emissions over periods of warm-up, start-up, and shut-down;
   vii. Baghouse inlet temperatures;
   viii. Boiler combustion temperatures; and
   ix. Boiler opacity.

b. 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.
c. Specific identification of each period of excess emissions that occurs during warm-up, start-ups, shut-downs, and malfunctions of the boiler systems. The nature and cause of any malfunction (if known) and the corrective action taken or preventative measures taken.
d. 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.
e. 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 equipment was subject to any repairs or adjustments except for zero and span checks of the CEMS.
f. The **Excess Emissions and Monitoring Systems Performance Report** shall be submitted with the attached **Excess Emissions and Monitoring System Performance Summary Report Forms** referenced in Attachment II, Special Condition No. E.5.p.

(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 Excess Emissions and Summary Reporting

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

a. A list of PM, PM_{10}, $PM_{2.5}$, SO_2, NO_X, CO, VOC, ammonia, cadmium, lead, mercury, fluoride, H_2SO_4, HCl, MWC acid gas, MWC metal, and dioxin/furan emission levels, boiler opacity, and fugitive ash emission levels during the most recent performance test specified in Attachment II, Special Condition No. F.1;
b. A summary of the test report and corrective actions taken if there were any exceedances during the most recent annual performance test for PM, PM_{10}, $PM_{2.5}$, SO_2, NO_X, CO, VOC, ammonia, cadmium, lead, mercury, fluoride, H_2SO_4, HCl, MWC acid gas, MWC metal, and dioxin/furan emission levels, boiler opacity, and fugitive ash emission levels;
c. A list of the highest emission level recorded by the CEMS for SO_2, NO_X, and CO, for periods of warm-up, start-up, and shut-down;
d. A list of the highest emission level recorded by the CEMS for SO_2, NO_X, and CO during normal boiler operation (operation during periods other than start-up, shut-down, and malfunction) for all applicable pollutant averaging periods specified in Attachment II, Special Condition No. C.8.d;
e. A list of the highest opacity recorded by the COMS for the mass-burn boiler;
f. A list of the highest boiler load level and baghouse inlet temperature recorded by the CMSs;
g. A list of the lowest boiler combustion temperatures and lime slurry feed rates recorded by the CMS;
h. 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 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);
i. Information on the four-hour (4-hour) arithmetic average load level of the boiler during the most recent performance test to determine compliance with the dioxin/furan emissions limit;
j. Information on the one-hour (1-hour) average lime slurry feed rate during the most recent performance test to determine compliance with emission limits for fluorides and H_2SO_4;
k. The total number of hours per calendar quarter and hours per calendar year that valid data for boiler SO_2, NO_X, and CO emission concentrations, boiler load, baghouse inlet temperature, 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;
l. The total number of hours that data for boiler SO_2, NO_X, and CO emission concentrations, boiler load, baghouse inlet temperature, boiler combustion temperature, and lime slurry feed rate were excluded from the calculation of average emission concentrations or parameters, including the reasons for excluding the data;
m. The summary of the data reported under Attachment II, Special Condition No. E.5, shall also provide the types of data specified in Attachment II, Special Condition Nos. E.5(a) through E.5(k), for the calendar year preceding the year being reported in order to provide a summary of the performance of the facility over a two-year (2-year) period;

n. The summary of data shall highlight any emission or parameter levels that did not achieve the emission or parameter limits specified by the permit;
o. Documentation of periods when all certified chief facility operators and certified shift supervisors are off-site for more than twelve (12) hours; and
p. The **Excess Emissions and Monitoring Systems Performance Report** shall be submitted with the following **Excess Emissions and Monitoring System Performance Summary Report Forms**:

i. Excess Emissions and Monitoring System Performance Summary Report-CEMS;
ii. Excess Emissions and Monitoring System Performance Summary Report-COMS;
iii. Excess Emissions and Monitoring System Performance Summary Report-Boiler Combustion Temperature CMS;
iv. Excess Emissions and Monitoring System Performance Summary Report-Boiler Operating Load CMS;
v. Excess Emissions and Monitoring System Performance Summary Report-Baghouse Inlet Temperature CMS; and
vi. Excess Emissions and Monitoring System Performance Summary Report-CERMS.

(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

a. Notification of the following for the boiler shall be **postmarked not less than thirty (30) days prior** to such date:

i. The date upon which demonstration of the performance of the continuous monitoring systems (CEMS, CERMS, COMS, and other CMS for measuring combustion temperature, baghouse inlet temperature, boiler load level and lime slurry feed rate) commence in accordance with 40 CFR §60.13. A plan to demonstrate performance of the systems shall accompany each notification.
. ii. The date of conducting a source performance test as required by Attachment II, Section F. A performance test plan as specified in Attachment II, Special Condition No. F.4, shall accompany the notification.

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

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

7. CEMS and CERMS Certification

a. All quarterly accuracy audits of the CEMS involving CGA 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 CEMS and CERMS shall be submitted **within sixty (60) days** after completion of the RATA and may be submitted with the annual performance test report.

(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. 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:

i. The identification of each term or condition of the permit that is the basis of the certification;
ii. The compliance status;
iii. Whether compliance was continuous or intermittent;
iv. The methods used for determining the compliance status of the source currently and over the reporting period;
v. 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;
vi. Brief description of any deviations including identifying as possible exceptions to compliance any periods during which compliance is required and which the excursion or exceedances as defined in 40 CFR Part 64 occurred;
vii. Information as required by 40 CFR Part 70, §70.6(c)(5)(iii); and
viii. Any additional information as required by the Department of Health, including information to determine compliance.

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

9. Annual Emissions

a. 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 and greenhouse gases. The reporting of annual emissions is due **within sixty (60) days following** the

end of each calendar year. The enclosed **Annual Emissions Report Form: Mass-burn MWC Boiler**, **Annual Emissions Report Form: Cooling Tower**, **Annual Emissions Report Form: Odor Control System** shall be used for reporting.

b. 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; 40 CFR §98.2)

10. 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: Mass-burn MWC Boiler Fuel Consumption**, **Monitoring Report Form: Mass-burn MWC Boiler Operation**, and **Monitoring Report Form: H_2S Monitoring** shall be used for reporting.

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

11. Post-Construction Ambient Air Quality and Meteorological Monitoring

a. 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.

b. 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.

c. **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]

12. Maintenance

    The permittee shall submit, for approval by the Department of Health, maintenance and inspection procedures for the mass-burn MWC 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, 40 CFR §52.21)[1]

13. Used Oil

    The permittee shall submit a written request and receive prior written approval from the Department of Health before accepting used oil from another source. For each written request, the permittee shall identify the new source and provide results from the used oil analysis to determine compliance with Attachment II, Special Condition No. C.14.b.iv. For each used oil analysis, the laboratory report shall indicate the amount of used oil that sampling represents.

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

Section F. Testing Requirements

1. Initial and Annual Performance Testing

    a. **Within sixty (60) days after** achieving the maximum production rate at which the boiler will be operated to burn sewage sludge, but **not later than one-hundred eighty (180) days after initial start-up to burn sewage sludge and annually thereafter**, the permittee shall conduct or cause to be conducted a performance test on the boiler to determine compliance with the PM emissions limit specified in Attachment II, Special Condition No. C.8.f.
    b. Unless a waiver of emission testing is obtained under 40 CFR §61.13, the permittee shall conduct an initial performance test to determine compliance with the mercury emissions limit specified in Attachment II, Special Condition No. C.8.f **within ninety (90) days after initial startup to combust sewage sludge**. Samples shall be taken over such a period or periods as are necessary to accurately determine the maximum emissions which will occur in any twenty four-hour (24-hour) period when burning MSW with sewage sludge. The maximum mercury emission shall be based on burning 100 dry tons of sewage sludge over a 24 hour period. No changes in operation shall be made, which would potentially increase emissions above that determined by the most recent source test, until a new emission level has been estimated by calculation and the results reported to the Department of Health.
    c. The permittee shall conduct performance tests on the boiler and ash conveying system(s) to determine compliance with Attachment II, Special Condition Nos. C.8.e, C.9, and C.10. Performance tests shall be conducted **annually (no less than nine (9) calendar months and no more than twelve (12) calendar months following the previous performance test; and five (5) performance tests must be completed in each five-year (5-year) calendar period**).

d. Performance tests to determine compliance with the emission limits specified in Attachment II, Special Condition Nos. C.8.e and C.8.f, 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.
e. Performance testing in accordance with Attachment II, Special Condition No. F.1.c 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 sewage sludge and supplemental wastes.

(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, 40 CFR Part 61, Appendix B and §61.13. The following test methods, or EPA approved equivalent methods shall be used. The following methods/provisions shall be used, as applicable, to determine the mass emission rates, emission concentrations, percent of emission reductions, and opacity:

a. EPA Methods 1 through 4 shall be performed for sample sites and number of traverse sites, gas velocity and volumetric flow rate, gas analysis, and determining moisture in stack gases.
b. The PM emissions per dry sewage sludge input when burning MSW with sewage sludge shall be determined in accordance with 40 CFR §60.154.
c. Mercury emissions when burning MSW with sewage sludge shall be determined from the boiler according to Method 101A of Appendix B to Part 61 in accordance with 40 CFR §61.53(d).
d. As an alternative means for determining mercury emissions in accordance with Attachment II, Special Condition No. F.2.c, the permittee may use Method 105 of appendix B to Part 61 and the procedures specified in 40 CFR §61.54.
e. 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 °C (320 °F).
f. 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.
g. 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.
h. 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.
i. Performance tests for the emissions of ammonia shall be conducted using EPA Conditional Test Method (CTM)-027 or BAAQMD Method ST-1B.

j. 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).

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

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

m. Performance tests 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.

n. 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).

o. Performance tests for the emissions of NO_X shall be conducted using the CEMS to measure NO_2 and calculating the average emission concentration using EPA Method 19, Section 4.1.

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

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

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

s. Where all performance tests over a two (2) year period indicate that dioxin/furan emissions are less than or equal to seven (7) nanograms per dry standard cubic meter (total mass) for all affected facilities located within the municipal waste combustor plant, the permittee may elect to conduct annual performance tests for one (1) affected facility (i.e., unit) per year at the municipal waste combustor plant. At a minimum, a performance test for dioxin/furan emissions shall be conducted on a calendar year basis (no less than nine (9) calendar months and nor more than twelve (12) months following the previous performance test; and five (5) performance test must be completed in each five-year (5-year) calendar period) for one (1) affected facility at the municipal waste combustor plant. Each year a different affected facility at the municipal waste combustor plant shall be tested, and the affected facilities at the plant shall be tested in sequence (e.g., unit 1, unit 2, unit 3, as applicable). If each annual performance test continues to indicate a dioxin/furan emission level less than or equal to seven (7) nanograms per dry standard cubic meter (total mass), the permittee may continue conducting a performance test on only one (1) affected facility per calendar year. If any annual performance test indicates either a dioxin/furan a dioxin/furan emission level greater than seven (7) nanograms per dry standard cubic meter (total mass), performance tests shall thereafter be conducted annually on all affected facilities at the plant until and unless all annual performance tests for all affected facilities at the plant over a two-year (2-year) period indicate a dioxin/furan emission level less than or equal to seven (7) nanograms per dry standard cubic meter (total mass).

t. The permittee may request that compliance with an emission limit be determined using CO_2 measurements corrected to seven (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). Performance tests to determine emission rates and concentrations 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.

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

v. 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 (3) one-hour (1-hour) observations. The average duration of visible emissions per hour shall be calculated from the three (3) one-hour (1-hour) observations. The observation period shall include times when the facility is transferring ash from the 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 (3) one-hour (1-hour) observations. The average shall be used to determine compliance with the fugitive ash emissions limit.

w. 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, §60.154; SIP §11-60-15)[1,2]

3. Continuous Monitoring Systems

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, CERMS, and COMS servicing the mass-burn MWC boiler shall be conducted at least once every four (4) calendar quarters in accordance with the applicable performance specification in 40 CFR Part 60, Appendix B. The annual performance evaluation of the CEMS, CERMS, and COMS shall be conducted during any performance test, or within thirty (30) days thereafter, or at other times as required by the Department of Health. The performance evaluations shall be conducted no later than one hundred eighty (180) days after initial start-up of the MWC boiler.

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

    i. The boiler's combustion temperature as defined in Attachment II, Special Condition No. C.3;
    ii. Highest four-hour (4-hour) arithmetic average load, measured in lb/hr steam or feed water flow rate, of the boiler measured during the dioxin/furan performance test that shows compliance with the emission limit for MWC organics;

iii. Highest four-hour (4-hour) arithmetic average baghouse inlet temperature measured during the dioxin/furan performance test that shows compliance with the emission limit for MWC organics;
iv. 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;
v. 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 II, Special Condition No. D.11.a.i;
vi. 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 II, Special Condition No. D.11.a.ii; and
vii. The boiler opacity measured by the COMS during the performance test for emissions.

(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))[1]

4. Performance Test Plan

a. **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.
b. For performance testing under Attachment II, Special Condition No. F.1.c, each performance test plan shall indicate whether or not only one (1) of the three (3) boilers was tested for dioxin/furan emissions pursuant to Attachment II, Special Condition No. F.2.s.

(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 Reporting

a. **Within sixty (60) days after** completion of the performance test specified in Attachment II, Special Condition Nos. F.1.a and F.1.c, 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.
b. The performance test report for performance test specified in Attachment II, Special Condition No. F.1.c shall indicate whether or not only one (1) of the three (3) boilers was tested for dioxin/furan emissions pursuant to Attachment II, Special Condition No. F.2.s.

c. For the performance test conducted in accordance with Attachment II, Special Condition No. F.1.b for mercury, all samples shall be analyzed and mercury emissions shall be determined within **thirty (30) days** after the performance test. Each determination shall be reported to the Department of Health and U.S. EPA, Region 9, by a registered letter dispatched within **fifteen (15) calendar days** following the date such determination is completed.

d. If performance test results pursuant to Attachment II, Special Condition No. F.5.c indicate mercury emissions are greater than 1,600 g (3.5 lb) per twenty four-hour (24-hour) period, demonstrated by either stack sampling according to 40 CFR §61.53 or sludge sampling according to 40 CFR §61.54, the permittee shall perform mercury emissions testing once per year by source testing in accordance with Attachment II, Special Condition No. F.2.c or F.2.d.

(Auth.: HAR §11-60.1-11, §11-60.1-90; SIP §11-60-15; 40 CFR §52.21, §60.8, §61.33, §61.53)[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]

7. Performance Test Waiver

Upon written request and justification, the Department of Health may waive the requirement for a specific annual performance test required by Attachment II, Special Condition Nos. F.1.a and F.1.b. The waiver request is to be submitted prior to the required performance test and must include documentation justifying such action. Documentation should include, but is not limited to, the results of the prior test indicating compliance by a wide margin, documentation of continuing compliance, and further that operations of the source have not changed since the previous performance test.

(Auth.: HAR §11-60.1-3, §11-60.1-90)

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]

[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.

PROPOSED

ATTACHMENT II - INSIG: SPECIAL CONDITIONS - INSIGNIFICANT ACTIVITIES
COVERED SOURCE PERMIT NO. 0255-02-C

Issuance Date: **Expiration Date: April 23, 2017**

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. Lime silo with baghouse servicing spray dryer absorber for the nine hundred (900) ton per day
    mass-burn MWC boiler; and
    b. Activated carbon silo with baghouse servicing activated carbon injection system for the nine hundred (900) ton per day mass-burn MWC boiler.

    (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)

PROPOSED

Section D. Notification and Reporting

1. 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:

      i. The identification of each term or condition of the permit that is the basis of the certification;
      ii. The compliance status;
      iii. Whether compliance was continuous or intermittent;
      iv. The methods used for determining the compliance status of the source currently and over the reporting period;
      v. Any additional information indicating the source's compliance status with any applicable enhance 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;
      vi. Brief description of any deviations including identifying as possible exceptions to compliance any periods during which compliance is required and in which the excursion or exceedances as defined in 40 CFR 64 occurred;
      vii. Information as required by 40 CFR Part 70, §70.6(c)(5)(iii); and
      viii. Any additional information as required by the Department of Health including information to determine compliance.

   b. The compliance certification shall be submitted **within sixty (60) days after** the end of each calendar year, and shall be signed and dated by a responsible official or authorized representative.
   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.
   b. In lieu of addressing each emission unit as specified in **Compliance Certification Form**, the permittee may address insignificant activities as a single unit provided compliance is met with all applicable requirements. If compliance is not totally attained, the permittee shall identify the specific insignificant activity and provide the details associated with the noncompliance.

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

PROPOSED

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)

PROPOSED

ATTACHMENT III: ANNUAL FEE REQUIREMENTS
COVERED SOURCE PERMIT NO. 0255-02-C

Issuance Date: **Expiration Date: April 23, 2017**

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
919 Ala Moana Boulevard, Room 203
Honolulu, HI 96814

PROPOSED

ATTACHMENT IV: ANNUAL EMISSIONS REPORTING REQUIREMENTS
COVERED SOURCE PERMIT NO. 0255-02-C

Issuance Date: **Expiration Date: April 23, 2017**

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: Mass-burn Boiler
   Annual Emissions Report Form: Cooling Tower
   Annual Emissions Report Form: Odor Control System

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.

PROPOSED

COMPLIANCE CERTIFICATION FORM
COVERED SOURCE PERMIT NO. 0255-02-C
PAGE 1 OF ___

Issuance Date: **Expiration Date: April 23, 2017**

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.

PROPOSED

COMPLIANCE CERTIFICATION FORM
COVERED SOURCE PERMIT NO. 0255-02-C
(CONTINUED, PAGE 2 OF _____)

Issuance Date: **Expiration Date: April 23, 2017**

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

Instructions:

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

A. Attachment I, Standard Conditions

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

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

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

PROPOSED

COMPLIANCE CERTIFICATION FORM
COVERED SOURCE PERMIT NO. 0255-02-C
(CONTINUED, PAGE 3 OF _____)

Issuance Date: **Expiration Date: April 23, 2017**

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 piece of 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	Method	Compliance
		☐ monitoring ☐ recordkeeping ☐ reporting ☐ testing ☐ none of the above	☐ Continuous ☐ Intermittent
		☐ monitoring ☐ recordkeeping ☐ reporting ☐ testing ☐ none of the above	☐ Continuous ☐ Intermittent
		☐ monitoring ☐ recordkeeping ☐ reporting ☐ testing ☐ none of the above	☐ Continuous ☐ Intermittent
		☐ monitoring ☐ recordkeeping ☐ reporting ☐ testing ☐ none of the above	☐ Continuous ☐ Intermittent
		☐ monitoring ☐ recordkeeping ☐ reporting ☐ testing ☐ none of the above	☐ Continuous ☐ Intermittent
		☐ monitoring ☐ recordkeeping ☐ reporting ☐ testing ☐ none of the above	☐ Continuous ☐ Intermittent
		☐ monitoring ☐ recordkeeping ☐ reporting ☐ testing ☐ none of the above	☐ Continuous ☐ Intermittent

(Make Additional Copies if Needed)

PROPOSED

COMPLIANCE CERTIFICATION FORM
COVERED SOURCE PERMIT NO. 0255-02-C
(CONTINUED, PAGE _____ OF _____)

Issuance Date: **Expiration Date: April 23, 2017**

D. Deviations

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

(Make Additional Copies if Needed)

PROPOSED

EXCESS EMISSION AND MONITORING SYSTEM
PERFORMANCE SUMMARY REPORT - CEMS
COVERED SOURCE PERMIT NO. 0255-02-C
(PAGE 1 OF 2)

Issuance Date: **Expiration Date: April 23, 2017**

In accordance with the HAR, Title 11, Chapter 60.1, Air Pollution Control, the permittee shall report to the Department of Health and U.S. EPA, Region 9, the following information semi-annually:

(Make Copies for Additional Use)

Facility Name: _____

Company Name: _____

CEMS Location at Facility:_____

CEMS Description and Serial No.: _____

Boiler Description and Serial No.: _____

Pollutant Monitored: _____

From: Date _____ Time _____

To: Date _____ Time _____

Emission Limit: _____

Date of Last CEMS Certification/Audit: _____

Total Source Operating Time: _____

1. For the reporting period, report duration of excess emissions due to exceedances of the NO_2, SO_2, and CO emission limits specified in Attachment II, Special Condition No. C.8.e:

Excess Emissions Period/Cause	Duration of Excess Emissions (hours)		
	NO_2	SO_2	CO
Cleaning/Soot Blowing			
Control Equipment Failure			
Process Problems			
Other Known Causes			
Unknown Causes			
Fuel Problems			
Supplemental Waste Alternate Operating Scenario			

2. Identify all dates, times, and duration in the reporting period when the limits specified in Attachment II, Special Condition No. C.8.e were exceeded for NO_2, SO_2, and CO:

Date	Time	Duration (hours)	Pollutant	Averaging Period	Concentration Range (ppm)	Permit Limit (ppm)

PROPOSED

EXCESS EMISSION AND MONITORING SYSTEM PERFORMANCE SUMMARY REPORT - CEMS COVERED SOURCE PERMIT NO. 0255-02-C (CONTINUED, PAGE 2 OF 2)

Issuance Date: **Expiration Date: April 23, 2017**

3. Report total duration of excess emissions and percent total source operating time that excess emissions occurred in the reporting period due to exceedances of NO_2, SO_2, and CO emission limits specified in Attachment II, Special Condition No. C.8.e:

Pollutant	Duration of Excess Emissions (hours)	% Total Source Operating Time of Excess Emissions
NO_2		
SO_2		
CO		

CEMS PERFORMANCE SUMMARY

1. Report CEMS downtime in the reporting period for recording NO_2, SO_2, and CO emissions to determine compliance with emission limits specified in Attachment II, Special Condition No. C.8.e:

CEMS Downtime Period	Duration of CEMS Downtime (hours)		
	NO_2	SO_2	CO
Monitor Equipment Malfunctions			
Non-Monitor Equipment Malfunctions			
Quality Assurance Calibration			
Other Known Causes			
Unknown Causes			
Unknown Causes			

2. Report total duration of CEMS downtime, number of CEMS downtime incidents, and percent total source operating time that CEMS were not operating in the reporting period for recording NO_2, SO_2, and CO emissions to determine compliance with limits specified in Attachment II, Special Condition No. C.8.e:

Pollutant	Duration of CEMS Downtime (hours)	Number of CEMS Downtime Incidents	Percent Total Source Operating Time CEMS Not Operating
NO_2			
SO_2			
CO			

CERTIFICATION by Responsible Official

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

NAME (Print/Type): _____

Title: _____

(Signature): _____

PROPOSED

EXCESS EMISSION AND MONITORING SYSTEM
PERFORMANCE SUMMARY REPORT - COMS
COVERED SOURCE PERMIT NO. 0255-02-C
(PAGE 1 OF 2)

Issuance Date: **Expiration Date: April 23, 2017**

In accordance with the HAR, Title 11, Chapter 60.1, Air Pollution Control, the permittee shall report to the Department of Health and U.S. EPA, Region 9, the following information semi-annually:

(Make Copies for Additional Use)

Facility Name: _____

Company Name: _____

COMS Location at Facility:_____

COMS Description and Serial No.: _____

Boiler Description and Serial No.: _____

Parameter Monitored: _____

From: Date _____ Time _____

To: Date _____ Time _____

Opaity Limit: _____

Date of Last COMS Certification/Audit: _____

Total Source Operating Time: _____

COMS DATA SUMMARY

1. Report duration of excess emissions in the reporting period due to exceedances of the boiler opacity limits specified in Attachment II, Special Condition No. C.9:

Excess Emissions Period/Cause	Duration of Excess Emissions for Opacity (minutes)
Warm-up/Start-up/Shut-down	
Cleaning/Soot Blowing	
Control Equipment Failure	
Process Problems	
Other Known Causes	
Unknown Causes	
Fuel Problems	
Supplemental Waste Alternate Operating Scenario	

2. Identify all dates, times, and duration in the reporting period when the boiler opacity limits specified in Attachment II, Special Condition No. C.9 were exceeded:

Date	Time	Duration (minutes)	Opacity Range	Opacity Limit

PROPOSED

EXCESS EMISSION AND MONITORING SYSTEM
PERFORMANCE SUMMARY REPORT - COMS
COVERED SOURCE PERMIT NO. 0255-02-C
(CONTINUED, PAGE 2 OF 2)

Issuance Date: **Expiration Date: April 23, 2017**

3. Report total duration of excess emissions and percent total source operating time that excess emissions occurred in the reporting period for boiler opacity limited in accordance with Attachment II, Special Condition No. C.9:

Parameter	Total Duration of Opacity Exceedance (hours)	% Total Source Operating Time of Total Opacity Exceedance
Opacity		

COMS PERFORMANCE SUMMARY

1. Report COMS downtime in the reporting period for recording boiler opacity to determine compliance with opacity limit specified in Attachment II, Special Condition No. C.9:

COMS Downtime Period	Duration of COMS Downtime (minutes)
Monitor Equipment Malfunctions	
Non-Monitor Equipment Malfunctions	
Quality Assurance Calibration	
Other Known Causes	
Unknown Causes	

2. Report total duration of COMS downtime, number of COMS downtime incidents, and percent total source operating time that COMS were not operating in the reporting period for recording boiler opacity to determine compliance with limits specified in Attachment II, Special Condition No. C.9:

Parameter	Duration of COMS Downtime (minutes)	Number of COMS Downtime Incidents	Percent Total Source Operating Time COMS Not Operating
Opacity			

CERTIFICATION by Responsible Official

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

NAME (Print/Type): _____

Title: _____

(Signature): _____

PROPOSED

EXCESS EMISSION AND MONITORING SYSTEM
PERFORMANCE SUMMARY REPORT - BOILER COMBUSTION TEMPERATURE CMS
COVERED SOURCE PERMIT NO. 0255-02-C
(PAGE 1 OF 2)

Issuance Date: **Expiration Date: April 23, 2017**

In accordance with the HAR, Title 11, Chapter 60.1, Air Pollution Control, the permittee shall report to the Department of Health and U.S. EPA, Region 9, the following information semi-annually:

(Make Copies for Additional Use)

Facility Name: _____

Company Name: _____

CMS Location at Facility: _____

CMS Description and Serial No.: _____

Boiler Description and Serial No.: _____

Parameter Monitored: _____

From: Date _____ Time _____

To: Date _____ Time _____

Parameter Limit: _____

Date of Last CMS Certification/Audit: _____

Total Source Operating Time: _____

CMS DATA SUMMARY

1. Report duration of excess emissions in the reporting period for not maintaining minimum boiler combustion temperature in accordance with Attachment II, Special Condition No C.3:

Excess Emissions Period/Cause	Duration of Excess Emissions for Boiler Combustion Temperature (hours)
Cleaning/Soot Blowing	
Control Equipment Failure	
Process Problems	
Other Known Causes	
Unknown Causes	
Fuel Problems	
Supplemental Waste Alternate Operating Scenario	

2. Identify all dates, times, and duration in the reporting period when the boiler combustion temperature was lower than that required by Attachment II, Special Condition No. C.3:

Date	Time	Duration (minutes)	Measured Combustion Temperature Range (^{O}F)	Boiler Combustion Temperature Limit (^{O}F)

PROPOSED

EXCESS EMISSION AND MONITORING SYSTEM
PERFORMANCE SUMMARY REPORT - BOILER COMBUSTION TEMPERATURE CMS
COVERED SOURCE PERMIT NO. 0255-02-C
(CONTINUED, PAGE 2 OF 2)

Issuance Date: **Expiration Date: April 23, 2017**

3. Report total duration of excess emissions and percent total source operating time that excess emissions occurred in the reporting period for not maintaining minimum boiler combustion temperature required by Attachment II, Special Condition No. C.3:

Parameter	Total Duration of Opacity Exceedance (hours)	% Total Source Operating Time Minimum Boiler Combustion Temperature Not Maintained
Boiler Combustion Temperature		

CMS PERFORMANCE SUMMARY

1. Report the CMS downtime in reporting period for recording boiler combustion temperature to determine compliance with Attachment II, Special Condition No. C.3:

CMS Downtime Period	Duration of CMS Downtime (minutes)
Monitor Equipment Malfunctions	
Non-Monitor Equipment Malfunctions	
Quality Assurance Calibration	
Other Known Causes	
Unknown Causes	

2. Report total duration of the CMS downtime, number of CMS downtime incidents, and percent total source operating time the CMS were not operating for recording boiler combustion temperature to determine compliance with temperature limit specified in Attachment II, Special Condition No. C.3:

Parameter	Duration of CMS Downtime (minutes)	Number of CMS Downtime Incidents	Percent Total Source Operating Time of CMS Not Operating
Boiler Combustion Temperature			

CERTIFICATION by Responsible Official

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

NAME (Print/Type): _____

Title: _____

(Signature): _____

PROPOSED

EXCESS EMISSION AND MONITORING SYSTEM
PERFORMANCE SUMMARY REPORT - BOILER OPERATING LOAD CMS
COVERED SOURCE PERMIT NO. 0255-02-C
(PAGE 1 OF 2)

Issuance Date: **Expiration Date: April 23, 2017**

In accordance with the HAR, Title 11, Chapter 60.1, Air Pollution Control, the permittee shall report to the Department of Health and U.S. EPA, Region 9, the following information semi-annually:

(Make Copies for Additional Use)

Facility Name: _____

Company Name: _____

CMS Location at Facility: _____

CMS Description and Serial No.: _____

Boiler Description and Serial No.: _____

Parameter Monitored: _____

From: Date _____ Time _____

To: Date _____ Time _____

Parameter Limit: _____

Date of Last CMS Certification/Audit: _____

Total Source Operating Time: _____

CMS DATA SUMMARY

1. Report duration of excess emissions in the reporting period for exceedances of the boiler operating load limit specified in Attachment II, Special Condition No C.5:

Excess Emissions Period/Cause	Duration of Excess Emissions for Boiler Combustion Temperature (hours)
Cleaning/Soot Blowing	
Control Equipment Failure	
Process Problems	
Other Known Causes	
Unknown Causes	
Fuel Problems	
Supplemental Waste Alternate Operating Scenario	

2. Identify all dates, times, and duration in the reporting period when the boiler operating load limit specified in Attachment II, Special Condition No. C.5 was exceeded:

Date	Time	Duration (minutes)	Measured Operating Load Range (klbs/hour)	Operating Load Limit (klbs/hour)

PROPOSED

EXCESS EMISSION AND MONITORING SYSTEM
PERFORMANCE SUMMARY REPORT - BOILER OPERATING LOAD CMS
COVERED SOURCE PERMIT NO. 0255-02-C
(CONTINUED, PAGE 2 OF 2)

Issuance Date: **Expiration Date: April 23, 2017**

3. Report total duration of excess emissions and percent total source operating time that excess emissions occurred in the reporting period for exceeding the boiler operating load limit specified in Attachment II, Special Condition No. C.5:

Parameter	Total Duration of Opacity Exceedance (hours)	% Total Source Operating Time Exceeding Boiler Operating Load
Boiler Operating Load		

CMS PERFORMANCE SUMMARY

1. Report the CMS downtime in reporting period for recording boiler operating load to determine compliance with Attachment II, Special Condition No. C.5:

CMS Downtime Period	Duration of CMS Downtime (minutes)
Monitor Equipment Malfunctions	
Non-Monitor Equipment Malfunctions	
Quality Assurance Calibration	
Other Known Causes	
Unknown Causes	

2. Report total duration of the CMS downtime, number of CMS downtime incidents, and percent total source operating time the CMS was not operating for recording boiler operating load to determine compliance with Attachment II, Special Condition No. C.5:

Parameter	Duration of CMS Downtime (minutes)	Number of CMS Downtime Incidents	Percent Total Source Operating Time CMS Not Operating
Boiler Operating Load			

CERTIFICATION by Responsible Official

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

NAME (Print/Type): _____

Title: _____

(Signature): _____

PROPOSED

EXCESS EMISSION AND MONITORING SYSTEM
PERFORMANCE SUMMARY REPORT - BAGHOUSE INLET TEMPERATURE CMS
COVERED SOURCE PERMIT NO. 0255-02-C
(PAGE 1 OF 2)

Issuance Date: **Expiration Date:** **April 23, 2017**

In accordance with the HAR, Title 11, Chapter 60.1, Air Pollution Control, the permittee shall report to the Department of Health and U.S. EPA, Region 9, the following information semi-annually:

(Make Copies for Additional Use)

Facility Name: _____

Company Name: _____

CMS Location at Facility: _____

CMS Description and Serial No.: _____

Boiler Description and Serial No.:_____

Control Device Description and Serial No.: _____

Parameter Monitored: _____

From: Date _____ Time _____

To: Date _____ Time _____

Parameter Limit: _____

Date of Last CMS Certification/Audit: _____

Total Source Operating Time: _____

CMS DATA SUMMARY

1. Report duration of excess emissions in the reporting period when baghouse inlet temperature, limited in accordance with Attachment II, Special Condition No. C.6, was exceeded:

Excess Emissions Period/Cause	Duration of Excess Emissions for Boiler Combustion Temperature (hours)
Cleaning/Soot Blowing	
Control Equipment Failure	
Process Problems	
Other Known Causes	
Unknown Causes	
Fuel Problems	
Supplemental Waste Alternate Operating Scenario	

2. Identify all dates, times, and duration in the reporting period when baghouse inlet temperature exceeded limit specified in Attachment II, Special Condition No. C.6:

Date	Time	Duration (minutes)	Highest Baghouse Inlet Temperature From Performance Test (^{O}F)	Measured Baghouse Inlet Temperature (^{O}F)	Baghouse Inlet Temperature Differential (^{O}F)

PROPOSED

EXCESS EMISSION AND MONITORING SYSTEM
PERFORMANCE SUMMARY REPORT - BAGHOUSE INLET TEMPERATURE CMS
COVERED SOURCE PERMIT NO. 0255-02-C
(CONTINUED, PAGE 2 OF 2)

Issuance Date: **Expiration Date: April 23, 2017**

3. Report total duration of excess emissions and percent total source operating time that excess emissions occurred in the reporting period for exceeding the baghouse inlet temperature limit specified in Attachment II, Special Condition No. C.6:

Parameter	Total Duration of Baghouse Inlet Temperature Exceedances (hours)	% Total Source Operating Time Exceeding Baghouse Inlet Temperature
Baghouse Inlet Temperature		

CMS PERFORMANCE SUMMARY

1. Report the CMS downtime in reporting period for recording baghouse inlet temperature to determine compliance with Attachment II, Special Condition No. C.6:

CMS Downtime Period	Duration of CMS Downtime (minutes)
Monitor Equipment Malfunctions	
Non-Monitor Equipment Malfunctions	
Quality Assurance Calibration	
Other Known Causes	
Unknown Causes	

2. Report total duration of the CMS downtime, number of CMS downtime incidents, and percent total source operating time the CMS was not operating to record baghouse inlet temperature to determine compliance with Attachment II, Special Condition No. C.6:

Parameter	Duration of CMS Downtime (minutes)	Number of CMS Downtime Incidents	Percent Total Source Operating Time CMS Not Operating
Boiler Operating Load			

CERTIFICATION by Responsible Official

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

NAME (Print/Type): _____

Title: _____

(Signature): _____

PROPOSED

EXCESS EMISSION AND MONITORING SYSTEM
PERFORMANCE SUMMARY REPORT - CERMS
COVERED SOURCE PERMIT NO. 0255-02-C
(PAGE 1 OF 2)

Issuance Date: **Expiration Date: April 23, 2017**

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 Additional Use)

Facility Name: _____

Company Name: _____

CERMS Location at Facility: _____

CERMS Description and Serial No.: _____

Boiler Description and Serial No.:_____

Control Device Description and Serial No.:

_____

Parameter Monitored: _____

From: Date _____ Time _____

To: Date _____ Time _____

Parameter Limit: _____

Date of Last CERMS Certification/Audit: _____

Total Source Operating Time: _____

CERMS DATA SUMMARY

1. For the reporting period, report duration of excess emissions of NO_2, SO_2, and CO pursuant to permit limits specified in Attachment II, Special Condition Nos. C.8.a, C.8b, and C.8.c:

Excess Emissions Period/Cause	Duration of Excess Emissions (hours)		
	NO_2	SO_2	CO
Warm-up/Start-up/Shut-down			
Cleaning/Soot Blowing			
Control Equipment Failure			
Process Problems			
Other Known Causes			
Unknown Causes			
Fuel Problems			
Supplemental Waste Alternate Operating Scenario			

2. Identify all dates, times, and duration in the reporting period when the limits specified in Attachment II, Special Condition Nos. C.8.a, C.8.b, and C.8.c were exceeded for NO_2, SO_2, and CO:

Date	Time	Duration (hours)	Pollutant	Period	Total Emission Range (lbs)	Permit Limit (lbs)

PROPOSED

EXCESS EMISSION AND MONITORING SYSTEM PERFORMANCE SUMMARY REPORT - CERMS COVERED SOURCE PERMIT NO. 0255-02-C (CONTINUED, PAGE 2 OF 2)

Issuance Date: **Expiration Date: April 23, 2017**

3. Report total duration of excess emissions and percent total source operating time that excess emissions occurred in the reporting period for NO_2, SO_2, and CO emissions that are limited in accordance with Attachment II, Special Condition Nos. C.8.a, C.8.b, and C.8.c:

Pollutant	Duration of Excess Emissions (hours)	% Total Source Operating Time of Excess Emissions
NO_2		
SO_2		
CO		

CERMS PERFORMANCE SUMMARY

1. Report CERMS downtime in the reporting period for recording NO_2, SO_2, and CO emissions to determine compliance with Attachment II, Special Condition Nos. C.8.a, C.8.b, and C.8.c:

CEMS Downtime Period	Duration of CERMS Downtime (hours)		
	NO_2	SO_2	CO
Monitor Equipment Malfunctions			
Non-Monitor Equipment Malfunctions			
Quality Assurance Calibration			
Other Known Causes			
Unknown Causes			
Unknown Causes			

2. Report total duration of CERMS downtime, number of CERMS downtime incidents, and percent total source operating time that CEMS were not operating in the reporting for recording NO_2, SO_2, and CO emissions to determine compliance with limits specified in Attachment II, Special Condition Nos. C.8.a, C.8.b, and C.8.c:

Pollutant	Duration of CERMS Downtime (hours)	Number of CERMS Downtime Incidents	Percent Total Source Operating Time CERMS Not Operating
NO_2			
SO_2			
CO			

CERTIFICATION by Responsible Official

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

NAME (Print/Type): _____

Title: _____

(Signature): _____

PROPOSED

ANNUAL EMISSIONS REPORT FORM
MASS-BURN MWC BOILER
COVERED SOURCE PERMIT NO. 0255-02-C
(PAGE 1 OF 2)

Issuance Date: **Expiration Date: April 23, 2017**

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 Additional Use)

For Reporting Period: _____ Date: _____

Company Name: _____

Facility Name: _____

I certify that I have knowledge of the facts herein set forth, that the same are true, accurate and complete to the best of my knowledge and belief, and that all information not identified by me as confidential in nature shall be treated by 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 (tons/year or gallons/year)	Maximum % Sulfur Content
Fuel Oil No. 2 Auxiliary Fuel		
Specification Used Oil Auxiliary Fuel		
Used Cooking Oil Auxiliary Fuel		
MSW		
Supplemental Waste		
Sewage Sludge		

PROPOSED

ANNUAL EMISSIONS REPORT FORM
MASS-BURN MWC BOILER
COVERED SOURCE PERMIT NO. 0255-02-C
(CONTINUED, PAGE 2 OF 2)

Issuance Date: **Expiration Date: April 23, 2017**

2. 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.

PROPOSED

ANNUAL EMISSIONS REPORT FORM
COOLING TOWER
COVERED SOURCE PERMIT NO. 0255-02-C

Issuance Date: **Expiration Date: April 23, 2017**

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 Additional Use)

For Reporting Period: _____ Date: _____

Company Name: _____

Facility Name: _____

I certify that I have knowledge of the facts herein set forth, that the same are true, accurate and complete to the best of my knowledge and belief, and that all information not identified by me as confidential in nature shall be treated by 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 Content of Recirculation Water (ppm)
2-Cell Cooling Tower	29,000	0.0005%	

PROPOSED

ANNUAL EMISSIONS REPORT FORM
ODOR CONTROL SYSTEM
COVERED SOURCE PERMIT NO. 0255-02-C

Issuance Date: **Expiration Date: April 23, 2017**

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 Additional Use)

For Reporting Period: _____ Date: _____

Company Name: _____

Facility Name: _____

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

Responsible Official (Print): _____

Title: _____

Responsible Official (Signature): _____

1. Report the hours per year operation for the odor control system servicing the sewage sludge receiving station:

Equipment	Serial Number	Total Operating Hours per Year
5,000 ft^3/min Odor Control System		

PROPOSED

MONITORING REPORT FORM
MASS-BURN MWC BOILER FUEL CONSUMPTION
COVERED SOURCE PERMIT NO. 0255-02-C

Issuance Date: **Expiration Date: April 23, 2017**

(Make Copies for Additional Use)

For Reporting Period: _____ Date: _____

Company Name: _____

Facility Name: _____

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

Responsible Official (Print):_____

Title:_____

Responsible Official (Signature):_____

1. Report the maximum percent sulfur content for the fuel oil No. 2 auxiliary fuel fired by the mass-burn MWC boiler as follows:

Unit	Capacity (tons per day)	Maximum % Sulfur Content by Weight	Fuel Oil No. 2 Consumption (gallons/year)
Mass-Burn MWC Boiler	900		

2. Report the maximum pollutant concentrations in the table below from the specification used oil auxiliary fuel fired by the 900 ton per day mass-burn MWC boiler as follows:

Pollutant	Maximum Concentration (ppm)	Maximum % by Weight	Notes
Sulfur	N/A		
Arsenic		N/A	
Cadmium			
Chromium			
Lead			
Total Halogens			
PCBs			

PROPOSED

MONITORING REPORT FORM
MASS-BURN MWC BOILER OPERATION
COVERED SOURCE PERMIT NO. 0255-02-C
(PAGE 1 OF 5)

Issuance Date: **Expiration Date: April 23, 2017**

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 Additional Use)

For Reporting Period: _____ Date: _____

Company Name: _____

Facility Name: _____

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

Responsible Official (Print):_____

Title:_____

Responsible Official (Signature):_____

1. For the reporting period, identify all incidences when the three (3) hour start-up, shut-down, and malfunction limits specified in Attachment II, Special Condition No. C.2.a was exceeded for the mass-burn MWC boiler:

Exceedance Date	Boiler Serial Number	Duration (hours)		
		Start-up	Shut-down	Malfunction

2. For the reporting period, identify all incidences when the twelve (12) hour warm-up limit specified in Attachment II, Special Condition No. C.2.b was exceeded for the mass-burn MWC boiler:

Exceedance Date	Boiler Serial Number	Warm-up Duration (hours)

PROPOSED

MONITORING REPORT FORM
MASS-BURN MWC BOILER OPERATION
COVERED SOURCE PERMIT NO. 0255-02-C
(PAGE 2 OF 5)

Issuance Date: **Expiration Date: April 23, 2017**

3. For the reporting period, identify all incidences when the fifteen (15) hour malfunction limit specified in Attachment II, Special Condition No. C.2.e was exceeded for any of the two RDF MWC boilers:

Exceedance Date	Boiler Serial Number	Malfunction Duration (hours)

4. All incidences when the 8-hour block average activated carbon mass feed rate, as specified in Attachment II, Special Condition No. D.8.a, 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

5. For the reporting period, identify all excursions of the indicator range to ensure compliance with the emission limit for fluorides and H_2SO_4 pursuant to Attachment II, 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	

PROPOSED

MONITORING REPORT FORM
MASS-BURN MWC BOILER OPERATION
COVERED SOURCE PERMIT NO. 0255-02-C
(PAGE 3 OF 5)

Issuance Date: **Expiration Date: April 23, 2017**

6. For the reporting period, identify all excursions of the indicator range to ensure compliance with the emission limit for fluorides and H_2SO_4 pursuant to Attachment II, 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	

7. For the reporting period, identify 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 II, Special Condition No. D.11.b:

Excursion Date	Percent Opacity	Reason for Excursion/Final Outcome/Corrective Actions

PROPOSED

MONITORING REPORT FORM
MASS-BURN MWC BOILER OPERATION
COVERED SOURCE PERMIT NO. 0255-02-C
(PAGE 4 OF 5)

Issuance Date: **Expiration Date: April 23, 2017**

8. Report the maximum sewage sludge mercury content for the reporting period:

Pollutant	Maximum Concentration (mg/kg dry)	
	Mechanically Dewatered Sewage Sludge	Dried Sewage Sludge Pellets
Mercury		

9. Report the total amount of sewage sludge burned by the mass-burn boiler on a dry basis as follows:

Month	Sewage Sludge Consumption on Dry Basis (Tons)		
	Total Mechanically Dewatered Sewage Sludge Burned on Dry Basis (Monthly)	Total Dried Sewage Sludge Pellets Burned on Dry Basis (Monthly)	Total Combined Sewage Sludge Burned on Dry Basis (12-Month Rolling Period)
January			
February			
March			
April			
May			
June			
July			
August			
September			
October			
November			
December			

PROPOSED

MONITORING REPORT FORM
MASS-BURN MWC BOILER OPERATION
COVERED SOURCE PERMIT NO. 0255-02-C
(PAGE 5 OF 5)

Issuance Date: **Expiration Date: April 23, 2017**

10. Report the total amount of sewage sludge burned by the mass-burn boiler on a dry basis as follows:

Month	Sewage Sludge Consumption on Dry Basis (Tons)
	Maximum Total Combined Mechanically Dewatered Sewage Sludge and Dried Sewage Sludge Pellets Burned (24-Hour Period)
January	
February	
March	
April	
May	
June	
July	
August	
September	
October	
November	
December	

PROPOSED

MONITORING REPORT FORM
COOLING TOWER
COVERED SOURCE PERMIT NO. 0255-02-C

Issuance Date: **Expiration Date: April 23, 2017**

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 Additional Use)

For Reporting Period: _____ Date: _____

Company Name: _____

Facility Name: _____

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

Responsible Official (Print): _____

Title: _____

Responsible Official (Signature): _____

1. Report the maximum total combined VOC content and dissolve solids content of the recirculation water for the cooling tower during the reporting period:

Unit	Maximum Total Combined VOC Content of Recirculation Water (ppm)	Maximum Dissolved Solids Content of Recirculation Water (ppm)
2-Cell Cooling Tower		

PROPOSED

MONITORING REPORT FORM
H_2S MONITORING
COVERED SOURCE PERMIT NO. 0255-02-C

Issuance Date: **Expiration Date: April 23, 2017**

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:

For Reporting Period: _____ Date: _____

Company Name: _____

Facility Name: _____

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

Responsible Official (Print): _____

Title: _____

Responsible Official (Signature): _____

1. Report the maximum H_2S concentration at the property line of the facility if H_2S monitoring is required during the reporting period:

Maximum H_2S Concentration (ppbv)	Location

PROPOSED

COMPLIANCE ASSURANCE MONITORING PLAN
FLUORIDES AND SULFURIC ACID MIST
COVERED SOURCE PERMIT NO. 0255-02-C

Issuance Date: **Expiration Date: April 23, 2017**

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 60, 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.

PROPOSED

COMPLIANCE ASSURANCE MONITORING PLAN
PM, PM_{10}, $PM_{2.5}$, AND MWC METALS
COVERED SOURCE PERMIT NO. 0255-02-C
(PAGE 1 OF 2)

Issuance Date: **Expiration Date: April 23, 2017**

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 5% over any one-hour (1-hour) period.

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.