NOTICE OF PUBLIC HEARING AND REQUEST FOR PUBLIC COMMENTS ON DRAFT PERMIT FOR COVANTA HONOLULU RESOURCE RECOVERY VENTURE REGULATING THE EMISSIONS OF AIR POLLUTANTS

(Docket No. 09-CA-PA-29)

Public Hearing Date: November 24, 2009

Place: Kapolei Middle School Cafeteria
91-5335 Kapolei Parkway
Kapolei, Oahu

Company: Covanta Honolulu Resource Recovery Venture (CHRRV)
40 Lane Road
Fairfield, New Jersey 07004

Facility: Honolulu Program of Waste Energy Recovery (H-POWER)
H-POWER Municipal Waste Combustor Facility
Location: 91-174 Hanua Street, Kapolei, Oahu
UTM–592,618 Meters East and 2,356,415 Meters North, Zone 4 (NAD-27)

Time: 6:00 p.m.

Pursuant to Hawaii Revised Statutes (HRS), Chapter 342B, Hawaii Administrative Rules (HAR), Chapter 11-60.1, and 40 Code of Federal Regulations (CFR) 124.12, the State of Hawaii Department of Health (DOH), hereby gives notice of a public hearing that will be held to consider the following **DRAFT PERMIT** to be issued to CHRRV for the H-POWER facility expansion.

The **DRAFT PERMIT** is described as follows:

The Prevention of Significant Deterioration (PSD)/Covered Source Permit (CSP) No. 0255-01-C, under permit application No. 0255-05, would grant conditional approval for the H-POWER facility expansion in accordance with Federal PSD regulations, 40 CFR 52.21 and HAR, Chapter 11-60.1, Air Pollution Control. The facility expansion is for adding a 900 ton per day municipal waste combustor (MWC) boiler to the existing H-POWER facility at Campbell Industrial Park. Equipment for the existing facility includes two 854 ton per day MWC boilers that burn refuse-derived fuel (RDF). The RDF is produced by processing municipal solid waste (MSW) through shredding and size classification. The new unit proposed is a mass-burn waterwall MWC boiler with combustion controls to reduce nitrogen oxide (NO_X) emissions, feed chute, moving grate, integrated furnace/boiler, and associated ash collection systems. The shredding and size classification of MSW will not be required for the new MWC boiler because the combustor is a mass-burn unit. Air pollution control for the new boiler will include a spray dryer absorber to minimize acid gases (sulfur dioxide (SO_2), hydrochloric acid (HCl), sulfuric acid mist (H_2SO_4), and hydrogen fluoride (HF)), baghouse to remove

particulate, baghouse combined with carbon injection to control MWC metals, spray dryer absorber and baghouse combined with carbon injection and good combustion control for minimizing MWC organics, good combustion control for reducing carbon monoxide (CO) emissions, and selective non-catalytic reduction (SNCR) combined with Covanta very low-NO_X (VLN) system to minimize NO_X emissions. Another steam turbine generator, in addition to the existing 58-megawatt steam turbine generator, will be installed as part of the facility expansion. Also, the new boiler will require installation of one three-cell cooling tower. The H-POWER facility is equipped with one five-cell cooling tower for its two existing 854-ton per day MWC boilers. Maximum potential ton per year (TPY) emissions estimated from permitted sources associated with the modification are shown in the table below in comparison to the significant emission levels:

Pollutant	**Potential Emissions (TPY)**		**Total Emissions (TPY)**	**Significant Emission Level (TPY)**
	Mass-Burn Boiler	**3-Cell Cooling Tower**		
CO	212.7		212.7	100
NO_X	314.4		314.4	40
SO_2	126.5		126.5	40
PM (see note a)	21.9	11.3	33.2	25
PM_{10} (see note a)	58.5	0.8	59.3	15
$PM_{2.5}$ (see note a)	54.8	0.01	54.8	10
VOC	12.2		12.2	40
Fluorides	5.3		5.3	3
H_2SO_4	37.2		37.2	7
MWC acid gases (see note b)	195.8		195.8	40
MWC metals (see note c)	21.9		21.9	15
MWC organics (see note d)	2.37×10^{-5}		2.37×10^{-5}	3.50×10^{-6}

a: PM includes only filterable particulate matter from the mass-burn boiler; PM10 and PM2.5 include filterable + condensable particulate matter from the mass-burn boiler.
b: Measured as SO_2 and HCl.
c. Measured as PM.
d: Dioxin/furans.

The new boiler is subject to 40 CFR, Part 60 - New Source Performance Standards (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. The new boiler is also subject to 40 CFR 52.21, Prevention of Significant Deterioration of Air Quality, and 40 CFR Part 64, Compliance Assurance Monitoring.

A preliminary air modeling analysis was conducted for pollutants exceeding significant emission levels for which significant monitoring concentrations (SMCs) and significant impact levels (SILs) exist, except for particulate matter less than 2.5 microns in diameter ($PM_{2.5}$). For $PM_{2.5}$, impacts were compared to worst-case SMCs and SILs among three Environmental Protection Agency (EPA) options presented in PSD regulations that are not finalized yet. An AERMOD model was used to determine pollutant impacts. Air impacts were determined for operating the new boiler in five different operating scenarios among those determined from the refuse-firing diagram where worst-case impacts would be expected. Start-up/shutdown conditions were also modeled to determine short-term impacts. The various boiler operating scenarios were modeled concurrently with other emission sources that included a three-cell cooling tower, lime storage silo with baghouse, activated carbon silo with baghouse, and fugitive dust due to traffic on paved roads. The preliminary model was conducted to determine: (1) whether or not preconstruction monitoring is required; (2) if further modeling from a full impact analysis is applicable; and (3) to define the impact area within which a full impact analysis must be performed. If the SMC is exceeded, preconstruction monitoring is required for the associated pollutant and averaging period. If the SIL is exceeded, a full impact analysis is required for the associated pollutant and averaging period.

Results from the preliminary modeling analysis in comparison to the ambient air SMCs determined that preconstruction monitoring is not required. Results from the analysis are shown in the table below:

MAXIMUM IMPACTS AND AMBIENT AIR MONITORING THRESHOLDS

Pollutant	Averaging Period	Maximum Impact (ug/m^3)	SMC (ug/m^3)	Percent Threshold
SO_2	24-hour	2.9	13	22
PM/PM_{10}	24-hour	2.0	10	20
$PM_{2.5}$	24-hour	1.0	2.3[a]	43
NO_2	Annual	0.22	14	2
CO	8-hour[b]	105	575	18
Fluorides	24-hour	0.13	0.25	52

a: The monitoring level is most stringent of proposed options for the $PM_{2.5}$ SMC.
b: The 8-hour impact was not determined for boiler start-up and shut-down periods. Conservatively, the 1-hour CO impact was used to represent worst-case CO impacts.

Maximum project impacts from the preliminary modeling assessment for the facility expansion are shown below in comparison to the SILs for Class II areas. Results indicate maximum impacts among the various boiler operating scenarios in conjunction with additive emissions from the other associated sources are below the SILs. As per the New Source Review Workshop Manual (Page C.27), ambient air concentrations of pollutants that are below the SILs require no further modeling to determine compliance with state and federal ambient air quality standards or PSD Class II increment for that

pollutant and averaging period.

MAXIMUM IMPACTS AND MODELING SIGNIFICANT LEVELS				
Pollutant	Averaging Period	Maximum Impacts (ug/m^3)	SIL, Class II Area (ug/m^3)	Percent Threshold
SO_2	3-hour 24-hour Annual	17 2.9 0.65	25 5 1	68 58 65
PM/PM-10	24-hour Annual	2.0 0.61	5 1	40 61
$PM_{2.5}$	24-hour Annual	1.0 0.29	1.2[a] 0.3[a]	83 97
NO_2	Annual	0.22	1	22
CO	1-hour 8-hour[b]	105 105	2,000 500	5 21

a: The monitoring level is most stringent of proposed options for the $PM_{2.5}$ SIL.
b: The 8-hour impact was not determined for boiler start-up and shut-down periods. Conservatively, the 1-hour CO impact was used to represent worst-case CO impacts.

All data submitted by the applicant is available as part of the **ADMINISTRATIVE RECORD**. The **ADMINISTRATIVE RECORD**, consisting of the **APPLICATION** and nonconfidential supporting materials from the applicant, the ambient air quality impact report, permit review summary, and the **DRAFT PERMIT**, are available for public inspection during regular office hours, Monday through Friday 7:45 a.m. to 4:15 p.m., at the following location:

Clean Air Branch, Department of Health
919 Ala Moana Boulevard, Room 203, Honolulu, Oahu 96814

Interested persons are invited to attend the public hearing to make comments and recommendations on the **DRAFT PERMIT** and the ambient air quality impact report. Persons desiring to testify should submit two copies of their testimony prior to or at the hearing. In addition, written comments on the draft permit will be accepted if received, or postmarked and mailed, by **December 1, 2009**. Comments shall be delivered or mailed to the Clean Air Branch, Department of Health, 919 Ala Moana Boulevard, Room 203, Honolulu, Hawaii 96814.

Interested persons may obtain copies of the administrative records or parts thereof by paying **five cents per page copying costs.** Please send written requests to the Clean Air Branch listed above or call Mr. Mike Madsen at the Clean Air Branch in Honolulu at (808) 586-4200.

DOH can provide auxiliary aids or services (e.g., sign language interpreter, large print, accessible parking) if the Clean Air Branch receives such a written request ten days prior to the hearing.

Comments on the draft permit should address, but need not be limited to, the permit conditions and the facility's compliance with federal and state air pollution laws, including: (1) the National and State Ambient Air Quality Standards; and (2) HRS, Chapter 342B and HAR, Chapter 11-60.1.

A final decision to set the conditions of and to issue the **FINAL PERMIT**, or to deny the application for the permit, shall be made after all comments pertaining to the **DRAFT PERMIT** and the ambient air quality impact report have been considered. Notice of the final decision shall be sent to each person who has submitted comments or requested such notice.

The decision on PSD/CSP No. 0255-01-C under permit application No. 0255-05 shall become effective thirty days from the date of issuance unless:

1. A later effective date is specified in the decision; or

2. The decision on the permit is appealed to the Environmental Appeals Board pursuant to 40 CFR 124.19 (any person who submits written comments on the draft permit or who participates in the public hearing may petition the Environmental Appeals Board to review any part of the permit decision within 30 days after the decision has been issued. Any person who failed to file comments and failed to participate in the public hearing on the draft permit may petition for review by the Environmental Appeals Board only those parts of the final permit decision which are different than the draft permit); or

3. There are no comments requesting a change to the proposed permit, in which case the final decision shall become effective immediately upon issuance.

If the draft permit becomes final, and there is no appeal, construction of the project may commence, subject to the conditions of the permit and other applicable permit and legal requirements.

Chiyome Leinaala Fukino, M.D.
Director of Health

Posted by: October 22, 2009