



STATE OF HAWAII
DEPARTMENT OF HEALTH
KA 'OIHANA OLAKINO
P. O. BOX 3378
HONOLULU, HI 96801-3378
doh.testimony@doh.hawaii.gov

In reply, please refer to:
File:

Testimony COMMENTING on HCR0153/HR0132
REQUESTING THE DEPARTMENT OF HEALTH TO CONDUCT A FEASIBILITY
STUDY ON THE IMPLEMENTATION OF CONTINUOUS MONITORING AND
SAMPLING TECHNOLOGIES IN WASTE COMBUSTION FACILITIES AND
MUNICIPAL SOLID WASTE LANDFILLS

REPRESENTATIVE NICOLE E. LOWEN, CHAIR
HOUSE COMMITTEE ON ENERGY AND ENVIRONMENTAL PROTECTION

Hearing Date: 3/21/2024

Room Number: 325

1 **Fiscal Implications:** This measure may impact the priorities identified in the Governor's
2 Executive Budget Request for the Department of Health's (Department) appropriations and
3 personnel priorities.

4 **Department Testimony:** These resolutions, which contain similar subject matter to HB2796
5 and SB2101 introduced this year, request the Department to study the feasibility of requiring
6 waste combustion facilities and municipal solid waste landfills to implement continuous
7 monitoring and sampling technologies that have been tested and verified by the United States
8 Environmental Protection Agency (EPA). The Department does not have the resources or
9 expertise to conduct the feasibility study and respectfully requests the authority to contract
10 services to develop the study at an estimated cost of up to \$100,000. The Department is
11 concerned about the fiscal implications generated by this proposal as it may adversely impact
12 priorities indicated in the Governor's Executive Budget. However, without the necessary
13 funding, the Department will be unable to conduct the feasibility study.

14 In drafting comments to these bills, our staff has conducted research that would constitute
15 the basis of a feasibility study on this topic. We offer the following preliminary information
16 based on our findings:

1 To ensure successful and accurate implementation of continuous emissions monitoring
2 (CEMS) or sampling, the Department requires both EPA-approved monitoring and sampling
3 methods and performance specifications to ensure data quality. The EPA has the expertise,
4 experience, resources, and the responsibility to evaluate measurement technology like CEMS for
5 regulatory use. Without both EPA-approved methodologies and performance specifications, the
6 Department would be unable to determine the quality or accuracy of the relevant installed CEMS
7 or sampling. Utilizing methods that do not have performance specifications or EPA approval
8 would bring into question the quality and defensibility of the data, weaken compliance
9 determinations and enforcement actions, and put the state at risk of lawsuits.

10 In Hawaii, the waste combustion facility affected would be the Honolulu Program of
11 Waste Energy Recovery (H-POWER) municipal waste combustor (MWC) facility owned by the
12 City and County of Honolulu. H-POWER is currently required to operate CEMS, using EPA-
13 approved methodologies and performance specifications, for 4 of the 23 listed pollutants in its air
14 pollution control permit with the Department. Of the remaining 19 pollutants, the Department
15 has been able to identify only 2 that have both EPA-approved methodologies and performance
16 specifications: mercury and particulate matter (PM). Other monitoring or sampling methods
17 exist for some of the remaining pollutants, but they are not currently approved by the EPA and/or
18 they do not have EPA performance specifications for the use of these methods. Of the two
19 pollutants that do have both EPA-approved methodologies and performance specifications, we
20 are not aware of PM CEMS having been demonstrated at municipal waste facilities. A cost of up
21 to \$500,000 is estimated for purchasing the instrumentation and installing one CEMS (mercury)
22 unit at an existing facility. For three stacks at H-POWER, this would total \$1.5 million dollars,
23 not including annual maintenance and operating costs which are estimated at up to \$85,000/year.

24 EPA is currently in the process of revising its rules for large MWCs. In these rules, EPA
25 is proposing to incorporate additional performance specifications into the large MWC
26 requirements. It is also evaluating the use of optional CEMS for certain pollutants, but only after
27 performance specifications for these CEMS are adopted by EPA.

28 In addition to EPA-approved continuous monitoring and sampling methodologies and
29 performance specifications, it is essential that EPA establish appropriate emission limits based
30 on continuous monitoring. For most pollutants, emission limits are based on current

1 requirements for annual stack tests but not on continuous monitoring. Without appropriate
2 emission limits, the Department would not be able to utilize the data to properly evaluate the
3 impact on human health and the environment. In the proposed rule, EPA is evaluating what
4 alternative emission limits and averaging times would be appropriate for determining compliance
5 with CEMS.

6 With regard to similar continuous monitoring or sampling for municipal solid waste
7 landfills (MSWLF), landfill gas is about 50% methane and 50% carbon dioxide and water vapor.
8 Both methane and carbon dioxide are greenhouse gases, with methane also being explosive but
9 not considered an inhalation hazard that threatens public health in the ambient air. Landfill gas
10 also contains small amounts of nitrogen, oxygen, hydrogen, and less than 1% non-methane
11 compounds. Hawaii's five largest MSWLFs are permitted by the Department, with a sixth being
12 evaluated for permitting. These permits require gas collection systems and flaring with 90-98%
13 gas reduction efficiencies to control landfill gases and require periodic methane monitoring at the
14 surface of the collection area.

15 **Offered Amendments:** None

16 Thank you for the opportunity to testify.



Covanta Honolulu Resource
Recovery Venture, LLC
91-174 Hanua Street
Kapolei, HI 96707
Tel: 808.682.2099
Fax: 808.682.5203

March 21, 2024

Representative Nicole Lowen, Chair
Representative Elle Cochran, Vice Chair
Committee on Consumer Protection and Commerce

Re: HCR 153 / HR 132 - REQUESTING THE DEPARTMENT OF HEALTH TO CONDUCT A FEASIBILITY STUDY ON THE IMPLEMENTATION OF CONTINUOUS MONITORING AND SAMPLING TECHNOLOGIES IN WASTE COMBUSTION FACILITIES AND MUNICIPAL SOLID WASTE LANDFILLS.

Dear Chair Lowen, Vice-Chair Cochran and Members of the Committee on Energy & Environmental Protection:

Covanta respectfully submits this testimony regarding HCR 153 / HR 132, which directs the Department of Health to conduct a study assessing the need for expansive additional continuous emissions monitoring at the H-POWER waste-to-energy facility. Covanta is the operator of the City and County of Honolulu's H-POWER facility.

HCR 153 / HR 132 state that "waste combustion facilities are among the largest sources of industrial air pollution; ... in many cases, the current technology used to monitor pollutants in the State is obsolete and fails to produce accurate data on the types and amounts of pollutants emitted..." The HPOWER facility plays a vital role in managing the City and County's municipal solid waste and the plant's emissions are consistently well below Federal and State emission requirements. The emissions control technology is neither obsolete nor inaccurate.

The primary purpose of a WTE plant is to safely and efficiently manage municipal solid waste. The only other alternative for post-recycled waste is landfilling. According to the EPA and European Union, after we reuse, reduce and recycle, waste-to-energy is the next environmentally preferable option over landfilling and any emissions from the HPOWER facility must be judged on a lifecycle basis.

Air emissions from WTE facilities are heavily regulated by both the U.S. EPA and state environmental agencies. Emissions from EfW facilities are determined both through routine stack tests (performed at least once a year) and through continuous emissions monitors (CEMS). CEMS monitor flue gases continuously for carbon monoxide (CO), nitrogen oxides (NOx), sulfur dioxide (SO2), opacity, and carbon dioxide and/or oxygen. Facility operators monitor these parameters and adjust as needed to ensure proper

operation and compliance. For example, monitoring CO levels continuously allows operators to respond to changes in the waste (e.g. wetter than normal waste that may have been collected during a rainstorm) to ensure complete and efficient combustion.

Other regulated pollutants are checked through a rigorous stack testing program performed by a regulator-approved third party. This testing is required by the EPA and state agency to be conducted under representative operating conditions and at >90% of the unit's operating capacity. Additionally, the operating parameters under which the stack test is conducted (e.g. activated carbon addition rate, steam flow rate) set the standard for the facility's operation until the next stack test is completed. Operating the combustion process and air pollution control equipment in accordance with these standards ensures compliance throughout the year, not just during test campaigns. Furthermore, the air pollution control systems in place at HPOWER must run anytime waste is being processed. We cannot bypass or turn-off air pollution control equipment.

We respectfully request the committee defer HCR 153 / HR 132. Thank you for the opportunity to provide our testimony.

Frazier Blaylock
Senior Director
Government Relations

HCR-153

Submitted on: 3/21/2024 8:54:49 AM

Testimony for EEP on 3/21/2024 9:31:00 AM

Submitted By	Organization	Testifier Position	Testify
Sherry Pollack	Individual	Support	Written Testimony Only

Comments:

SUPPORT!

HCR-153

Submitted on: 3/21/2024 9:01:34 AM

Testimony for EEP on 3/21/2024 9:31:00 AM

Submitted By	Organization	Testifier Position	Testify
Dave Mulnix	Individual	Support	Written Testimony Only

Comments:

SUPPORT!