

JAN 23 2025

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# A BILL FOR AN ACT

RELATING TO AIR POLLUTION.

**BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF HAWAII:**

1       SECTION 1. The legislature finds that toxic air pollution  
2 from waste incineration disproportionately impacts Native  
3 Hawaiian residents and is likely underestimated due to a lack of  
4 modern monitoring technology required of incineration  
5 facilities. The legislature further finds that, according to  
6 data from the United States Environmental Protection Agency  
7 (EPA), the Covanta Honolulu Resource Recovery Venture (H-Power),  
8 a waste incinerator located in Campbell Industrial Park on Oahu,  
9 is among the largest sources of industrial air pollution,  
10 impacting public health and the climate.

11       The legislature further finds that only four air pollutants  
12 are monitored on a continuous basis, while others, if tested for  
13 at all, are tested only once per year under optimal operating  
14 conditions. Even so, annual stack testing does not occur during  
15 startup, shutdown, and malfunction conditions, when certain  
16 pollutants are known to be released in higher amounts. The  
17 legislature further finds that during prolonged periods of



1 downtime, aging incinerators produce higher emissions from  
2 startup and shutdown occurrences, which are not measured during  
3 annual stack testing.

4       The legislature further finds that advances in technology  
5 have enabled more effective methods to continuously monitor for  
6 many toxic and otherwise harmful chemicals emitted by waste  
7 combustion facilities. The legislature additionally finds that  
8 that the EPA has tested and verified the data from more advanced  
9 continuous monitors between 2001 and 2007. In fact, Reworld,  
10 the operator of H-Power, has been using continuous monitors at  
11 some of their incinerators in other States, including continuous  
12 monitoring and sampling for hydrochloric acid at certain  
13 incinerators in New Jersey, New York, and Pennsylvania;  
14 long-term sampling for dioxins and furans at an incinerator in  
15 Ontario; and mercury, ammonia, and particulate matter at several  
16 other incinerators. The legislature notes that under Oregon  
17 state law, Reworld is required to continuously monitor for nine  
18 different toxic metals and continuously sample for dioxins,  
19 furans, and polychlorinated biphenyls. However, these  
20 continuous monitors are not used, or required, in Hawaii.



1       The legislature further finds that the continuous  
2 monitoring or sampling of emissions provides more accurate data  
3 than annual stack testing. When annual stack testing data was  
4 compared to the continuous monitoring of hydrochloric acid  
5 emissions at the nation's largest waste incinerator, operated by  
6 Reworld in Chester, Pennsylvania, it was found that the actual  
7 emissions determined by continuous monitoring were sixty-two per  
8 cent higher than that shown by annual stack testing, which is  
9 the method used by Reworld at H-Power.

10       The legislature further finds that dioxins and furans are  
11 the most toxic man-made chemicals known to science. According  
12 to studies of incinerators in Europe, it was observed that  
13 continuous sampling for dioxins at incinerators found the actual  
14 emissions to be thirty-two to fifty-two times greater than those  
15 reported in the United States, where testing is typically  
16 performed on one burner at each incinerator per year, on a  
17 rotating basis. Moreover, a more recent study concluded that  
18 the failure to deploy continuous sampling technology in the  
19 United States results in underestimating dioxin emissions by  
20 four hundred sixty to 1,290 times.



1       The legislature further finds that the monitoring of  
2   incinerators is critical in determining community exposure to  
3   health hazards from toxic emissions. While many assume that  
4   Hawaii's trade winds blow these emissions out to sea, Kona wind  
5   conditions blow emissions toward population centers on an  
6   average of about one day per week, allowing these harmful  
7   chemicals to be released into nearby communities. Moreover,  
8   wherever smokestack emissions occur, released chemicals return  
9   to the earth with the rain, and when they are blown out to sea,  
10   chemicals concentrate in the seafood that is then consumed.

11       The purpose of this Act is to implement continuous  
12   monitoring and sampling technologies that have been tested and  
13   verified by the United States Environmental Protection Agency at  
14   waste combustion facilities to ensure that the owners or  
15   operators continuously monitor, sample, and report the emissions  
16   of contaminants.

17       SECTION 2. Chapter 342B, Hawaii Revised Statutes, is  
18   amended by adding a new section to be appropriately designated  
19   and to read as follows:

20       "§342B-     Waste combustion facilities; monitoring. (a)

21   The owner or operator of any waste combustion facility shall



- 1 develop a plan to continuously monitor or continuously sample  
2 emissions of the following contaminants from each combustion  
3 unit:
- 4       (1) Carbon dioxide;
  - 5       (2) Ammonia;
  - 6       (3) Hydrochloric acid;
  - 7       (4) Hydrofluoric acid;
  - 8       (5) Particulate matter (total, PM10, and PM2.5);
  - 9       (6) Volatile organic compounds (VOCs);
  - 10       (7) Polycyclic aromatic hydrocarbons (PAHs);
  - 11       (8) Dioxins and furans;
  - 12       (9) Polychlorinated biphenyls (PCBs);
  - 13       (10) Per- and polyfluoroalkyl substances (PFAS);
  - 14       (11) Arsenic;
  - 15       (12) Beryllium;
  - 16       (13) Cadmium;
  - 17       (14) Hexavalent chromium;
  - 18       (15) Lead;
  - 19       (16) Manganese;
  - 20       (17) Mercury;
  - 21       (18) Nickel;



1        (19) Selenium; and

2        (20) Zinc.

3        (b) For each air contaminant under subsection (a), where  
4 it is technologically feasible and commercially available to  
5 continuously monitor the contaminant, the plan shall provide for  
6 the use of a continuous emissions monitoring system to monitor  
7 air contaminant. Measurements shall be made available once per  
8 minute, where possible, but in no case may the frequency of  
9 interval for monitoring samples be less than once every two  
10 hours.

11        If it is not technologically feasible and commercially  
12 available to use a continuous emissions monitoring system to  
13 monitor an air contaminant, the plan shall provide for the use  
14 of a continuous automated sampling system to continuously sample  
15 the air contaminant. The long-term sampling shall provide year-  
16 round monitoring through back-to-back use of long-term monthly  
17 samples.

18        Under no circumstance shall calculated estimates based on  
19 parametric monitoring be used in place of direct monitoring or  
20 sampling.



1        (c) The department shall adopt rules requiring each owner  
2 or operator of a waste combustion facility to submit a plan to  
3 describe how the owner or operator will:

4        (1) Conduct continuous monitoring or sampling as required  
5 by this section; and

6        (2) Make emissions data available to the department and  
7 the public via a publicly accessible website.

8        (d) Emissions data shall be reported on a data disclosure  
9 website hosted by the department, to be developed by a  
10 consultant hired by the operator to meet the following  
11 requirements:

12        (1) All continuous emissions monitoring systems data that  
13 is available in a digital format shall be supplied in  
14 real-time through an internet feed to the website.

15 Other data, including results from continuous  
16 automated sampling systems and annual stack test data,  
17 shall be submitted to the website no later than  
18 twenty-four hours after the data is available to the  
19 owner or operator, whichever party possesses the  
20 information sooner. Data shall be provided in in full  
21 detail available from the monitoring devices, as well



1        as summary form, including total amounts of releases  
2        of each chemical in pounds per day and per year. In  
3        addition to numerical data, data shall be displayed in  
4        line charts for each air contaminant and shall be  
5        accompanied by lines displaying any local, state, and  
6        federal emissions limits that apply. Where regulatory  
7        limits are based on rolling averages, a calculated  
8        line displaying those rolling averages shall be  
9        displayed. The emissions limits displayed shall be  
10       adjusted whenever permitted emissions limits change,  
11       showing the proper limits that apply at a given time.  
12       Emissions data that exceeds state or local emissions  
13       limits shall appear on the website in red-colored text  
14       so that violations are readily distinguishable from  
15       the rest of the data;

- 16       (2) The data disclosure website shall be designed to  
17       immediately alert, by electronic mail, the owner,  
18       operator, the department, and any other parties who  
19       enroll to be notified of any violations of data  
20       availability requirements or exceedances of local,  
21       state, or federal air pollution limitations. For both





1 types of violations, notices shall be available at the  
2 frequency of the recipient's choosing: as they occur,  
3 or on a daily, weekly, monthly, quarterly, or annual  
4 basis;

5 (3) All data submitted to the website shall be archived  
6 and maintained such that the history of data is  
7 available for download in a commonly available  
8 spreadsheet format;

9 (4) Dioxin and furan data shall be presented in both mass  
10 emissions and in toxic equivalents calculated using  
11 the most recent toxic equivalency factors used by the  
12 World Health Organization or the United States  
13 Environmental Protection Agency, and the choice of  
14 factor shall be disclosed on the website;

15 (5) The website shall display summary charts listing all  
16 violations of any applicable emissions limits per air  
17 contaminant for each facility reporting under this  
18 section. Daily, weekly, monthly, and yearly summaries  
19 of emissions levels and violations shall be made  
20 available in an easily understandable presentation  
21 format. Emissions trend data shall be presented in



1 line charts, showing the totals for all reporting  
2 facilities, as well as facility-specific trends from  
3 the beginning of the reported set through the most  
4 recent year. If the facility owner or operator has  
5 provided any explanation for a violation, that  
6 explanation shall also be listed on the website,  
7 available from wherever the violation is displayed;

8 (6) Any gaps in continuous emissions monitoring system  
9 data reporting shall be reported as null values, and  
10 explanations shall be reported to the website as  
11 separate comments associated with the data gaps or  
12 violations. If a waste combustion facility has  
13 multiple units or boilers, the data for each unit or  
14 boiler shall be presented separately. The operating  
15 status for each boiler shall be reported hourly by the  
16 operator of any waste combustion facility and shall be  
17 reported on the data disclosure website so that  
18 emissions data can be displayed alongside information  
19 stating whether certain boilers are operating or are  
20 in a process of startup or shutdown; and



1        (7) In addition to the display of emissions data in  
2        measurement units corresponding with state and local  
3        emissions limits, monthly and annual totals for each  
4        monitored air contaminant shall be presented in  
5        pounds. The monthly and annual emissions of each air  
6        contaminant, in pounds, shall be presented alongside  
7        the state and local permit limits in the same units,  
8        converted from the concentration limits. The waste  
9        combustion facility owner shall disclose stack test  
10       data for any air pollution stack test conducted at the  
11       facility that is required by state or federal permits.  
12       Beginning January 1, 2026, new stack test data for any  
13       stack test conducted shall be submitted to the data  
14       disclosure website no later than forty-eight hours  
15       after the data is available to the owner of the waste  
16       combustion facility.

17       The department shall issue protocols to be used by the  
18       owner or operator of the waste combustion facility to report  
19       data in a timely manner. The department may adjust any of the  
20       requirements of this subsection if the department finds that the  
21       objectives can better be met in another manner or format.



1       (e) By October 1, 2025, the owner or operator of a waste  
2 combustion facility shall submit the plan required by this  
3 section to the department. Before approving the plan, the  
4 department may make modifications to the plan as necessary to  
5 ensure the quality and accuracy of sampling or monitoring data.  
6 The owner or operator shall implement a plan approved by the  
7 department no later than three months after the date of the  
8 approval.

9       (f) Notwithstanding subsection (e), the department may, at  
10 the department's discretion, for good cause shown, extend the  
11 three-month deadline for submitting or implementing the plan  
12 required by this section in three-month periods; provided that  
13 the deadline extensions to the submission and implementation of  
14 a plan shall not collectively exceed nine months.

15       (g) The data from continuous monitoring and sampling of  
16 air contaminants not already required to be continuously  
17 monitored shall not be used for enforcement purposes until the  
18 time that the director determines that the data is reliable  
19 enough for that purpose. On an annual basis starting twelve  
20 months after the first use of new continuous monitoring and  
21 sampling equipment established under this section, the director



1 shall issue a determination on whether the data is reliable for  
2 use in the enforcement of permit limits, and whether the  
3 necessary regulatory tools exist for enforcement, such as the  
4 United States Environmental Protection Agency performance  
5 standards; provided that, within twelve months of a  
6 determination, the department shall publish rules for  
7 enforcement, which shall start not later than twelve months  
8 after the department's determination.

9 Where existing permit limits for an air contaminant are  
10 based on annual stack tests, new rules for permit limits based  
11 on continuous monitoring or sampling shall closely match the  
12 existing limits as much as possible, with averaging times not to  
13 exceed twenty-four hours. Where permit limits do not exist for  
14 an air contaminant required to be monitored by this section, the  
15 department shall establish the most protective permit limits  
16 based on the use of air pollution control devices that are  
17 commercially available. The director may determine that data on  
18 certain, but not all, air contaminants are reliable and ready  
19 for enforcement. In subsequent years, determinations shall be  
20 made on remaining contaminants for which that reliability  
21 determination has not yet been made.



1        (h) The department shall submit a report of the results of  
2        the continuous monitoring and sampling required by this section,  
3        including any determination on the use of this data for  
4        enforcement and proposed legislation, to the legislature no  
5        later than twenty days prior to the convening of each regular  
6        session."

7        SECTION 3. Section 342-1, Hawaii Revised Statutes, is  
8        amended by adding six new definitions to be appropriately  
9        inserted and to read as follows:

10        "Continuous automated sampling system" means the total  
11        equipment and procedures for automated sample collection, sample  
12        recovery, and analysis to determine an air contaminant  
13        concentration or emission rate by collecting a single sample or  
14        multiple integrated samples of the air contaminant for  
15        subsequent on- or off-site analysis.

16        "Continuous emissions monitoring system" means a pollution  
17        monitoring system capable of on-site sampling, conditioning,  
18        analyzing, and providing a record of emissions of an air  
19        contaminant at frequent intervals and meets United States  
20        Environmental Protection Agency or department of health data  
21        acquisition and availability requirements, where applicable.



1       "Dioxin" or "furan" means tetra- through octa-chlorinated  
2 dibenzo-p-dioxins and dibenzofurans.

3       "Technologically feasible and commercially available"  
4 refers to a continuous automated sampling system or continuous  
5 emissions monitoring system that is technically possible to  
6 install, currently offered for purchase by equipment vendors for  
7 the proposed application, and for which service contracts can be  
8 obtained for a fee. A determination of commercial availability  
9 does not include a cost analysis of the system.

10       "Waste" means any of the following, or combination of the  
11 following:

12       (1) "Waste" as defined in title II, chapter 58.1, Hawaii

13       Administrative Rules;

14       (2) Plastics;

15       (3) Any material that has been source separated for

16       recycling or composting purposes;

17       (4) Disaster debris;

18       (5) "Hazardous waste" as defined in title II, chapter 261,

19       Hawaii Administrative Rules;

20       (6) Processed engineered fuel;

21       (7) Solid recovered fuel;



1        (8) Refuse-derived fuel; or

2        (9) Any material determined by the United States

3            Environmental Protection Agency or state agency to be

4            a non-hazardous secondary material.

5        "Waste combustion facility" means any non-residential

6 facility that:

7        (1) Disposes of waste, uses waste to heat an industrial

8            process, or uses waste to produce energy, including

9            heat, electricity, or a burnable fuel;

10       (2) Performs the actions specified in paragraph (1)

11           through the combustion of waste, or gases produced on-

12           site from the burning, gasification, or pyrolysis of

13           waste, or by producing a solid, liquid, or gaseous

14           fuel product through conversion of waste; and

15       (3) Is capable of processing at least five tons of waste

16           per day.

17 "Waste combustion facility" does not include landfills,

18 anaerobic digesters, or facilities burning landfill gas or gas

19 produced from anaerobic digestion; provided that these

20 facilities are not also burning waste."





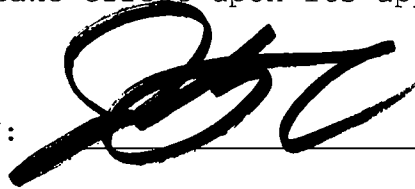
1       SECTION 4. The department of health shall set annual fees  
2 for the owner of each waste combustion facility to cover the  
3 costs of developing and hosting the data disclosure website and  
4 any other costs necessary to enforce this Act.

5       SECTION 5. New statutory material is underscored.

6       SECTION 6. This Act shall take effect upon its approval.

7

INTRODUCED BY: \_\_\_\_\_

A large, bold, handwritten signature in black ink, appearing to be 'JBT', is written over the line following 'INTRODUCED BY:'.

# S.B. NO. 1302

**Report Title:**

DOH; Waste Combustion Facilities; Monitoring and Sampling Plan;  
Air Contaminants; Website; Report

**Description:**

Requires owners or operators of waste combustion facilities to develop a plan to implement continuous monitoring and sampling technologies at each combustion unit to monitor and sample for certain air contaminants. Requires a publicly available website hosted by the Department of Health to track and display the data collected on the air contaminants. Requires the Department of Health to adjust permit limits for air contaminants based on the data collected. Requires annual reports to the Legislature.

*The summary description of legislation appearing on this page is for informational purposes only and is not legislation or evidence of legislative intent.*

