

JAN 21 2026

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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 the EPA has tested and verified the data from more advanced  
9 continuous monitors between 2001 and 2007. Reworld, the  
10 operator of H-Power, has been using continuous monitors at some  
11 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       Accordingly, the purpose of this Act is to implement  
12      continuous monitoring and sampling technologies that have been  
13      tested and verified by the EPA at waste combustion facilities to  
14      ensure that the owners or operators of the facilities  
15      continuously monitor, sample, and report the emissions of  
16      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) Perfluoroalkyl 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):

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

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

19        (3) Under no circumstance shall calculated estimates based  
20        on parametric monitoring be used in place of direct  
21        monitoring or 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. The department shall issue  
10 protocols to be used by the owner or operator of the waste  
11 combustion facility to report data in a timely manner. The  
12 department may adjust any of the requirements of this subsection  
13 if the department finds that the objectives can better be met in  
14 another manner or format. The website shall be developed by a  
15 consultant hired by the operator to meet the following  
16 requirements:

17       (1) All continuous emissions monitoring systems data that  
18 is available in a digital format shall be supplied in  
19 real-time through an internet feed to the website.  
20       Other data, including results from continuous  
21 automated sampling systems and annual stack test data,



1       shall be submitted to the website no later than  
2       twenty-four hours after the data is available to the  
3       owner or operator, whichever party possesses the  
4       information sooner. Data shall be provided in full  
5       detail available from the monitoring devices, as well  
6       as summary form, including total amounts of releases  
7       of each chemical in pounds per day and per year. In  
8       addition to numerical data, data shall be displayed in  
9       line charts for each air contaminant and shall be  
10       accompanied by lines displaying any local, state, and  
11       federal emissions limits that apply. Where regulatory  
12       limits are based on rolling averages, a calculated  
13       line displaying those rolling averages shall be  
14       displayed. The emissions limits displayed shall be  
15       adjusted whenever permitted emissions limits change,  
16       showing the proper limits that apply at a given time.  
17       Emissions data that exceeds state or local emissions  
18       limits shall appear on the website in red-colored text  
19       so that violations are readily distinguishable from  
20       the rest of the data;



1                   (2) The data disclosure website shall be designed to  
2                   immediately alert, by electronic mail, the owner,  
3                   operator, the department, and any other parties who  
4                   enroll to be notified of any violations of data  
5                   availability requirements or exceedances of local,  
6                   state, or federal air pollution limitations. For both  
7                   types of violations, notices shall be available at the  
8                   frequency of the recipient's choosing: as they occur,  
9                   or on a daily, weekly, monthly, quarterly, or annual  
10                   basis;

11                   (3) All data submitted to the website shall be archived  
12                   and maintained; provided that the history of data  
13                   shall be available for download in a commonly  
14                   available spreadsheet format;

15                   (4) Dioxin and furan data shall be presented in both mass  
16                   emissions and in toxic equivalents calculated using  
17                   the most recent toxic equivalency factors used by the  
18                   World Health Organization or the United States  
19                   Environmental Protection Agency, and the choice of  
20                   factor shall be disclosed on the website;



1       (5) The website shall display summary charts listing all  
2       violations of any applicable emissions limits per air  
3       contaminant for each facility reporting under this  
4       section. Daily, weekly, monthly, and yearly summaries  
5       of emissions levels and violations shall be made  
6       available in an easily understandable presentation  
7       format. Emissions trend data shall be presented in  
8       line charts, showing the totals for all reporting  
9       facilities, as well as facility-specific trends from  
10       the beginning of the reported set through the most  
11       recent year. If the facility owner or operator has  
12       provided any explanation for a violation, that  
13       explanation shall also be listed on the website,  
14       available from wherever the violation is displayed;

15       (6) Any gaps in continuous emissions monitoring system  
16       data reporting shall be reported as null values, and  
17       explanations shall be reported to the website as  
18       separate comments associated with the data gaps or  
19       violations. If a waste combustion facility has  
20       multiple units or boilers, the data for each unit or  
21       boiler shall be presented separately. The operating



1           status for each boiler shall be reported hourly by the  
2           operator of any waste combustion facility and shall be  
3           reported on the data disclosure website so that  
4           emissions data can be displayed alongside information  
5           stating whether certain boilers are operating or are  
6           in a process of startup or shutdown; and

7        (7)    In addition to the display of emissions data in  
8           measurement units corresponding with state and local  
9           emissions limits, monthly and annual totals for each  
10           monitored air contaminant shall be presented in  
11           pounds. The monthly and annual emissions of each air  
12           contaminant, in pounds, shall be presented alongside  
13           the state and local permit limits in the same units,  
14           converted from the concentration limits. The waste  
15           combustion facility owner shall disclose stack test  
16           data for any air pollution stack test conducted at the  
17           facility that is required by state or federal permits.  
18           Beginning January 1, 2027, new stack test data for any  
19           stack test conducted shall be submitted to the data  
20           disclosure website no later than forty-eight hours



1                   after the data is available to the owner of the waste  
2                   combustion facility.

3                   (e) By October 1, 2026, the owner or operator of a waste  
4                   combustion facility shall submit the plan required by this  
5                   section to the department. Before approving the plan, the  
6                   department may make modifications to the plan as necessary to  
7                   ensure the quality and accuracy of sampling or monitoring data.

8                   The owner or operator shall implement a plan approved by the  
9                   department no later than three months after the date of the  
10                   approval.

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

17                   (g) The data from continuous monitoring and sampling of  
18                   air contaminants not already required to be continuously  
19                   monitored shall not be used for enforcement purposes until the  
20                   time that the director determines that the data is reliable  
21                   enough for that purpose. On an annual basis starting twelve



1   months after the first use of new continuous monitoring and  
2   sampling equipment established under this section, the director  
3   shall issue a determination on whether the data is reliable for  
4   use in the enforcement of permit limits, and whether the  
5   necessary regulatory tools exist for enforcement, such as the  
6   United States Environmental Protection Agency performance  
7   standards; provided that, within twelve months of a  
8   determination, the department shall publish rules for  
9   enforcement, which shall start no later than twelve months after  
10   the department's determination.

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



1 shall be made on remaining contaminants for which that  
2 reliability determination has not yet been made.

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

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

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

18 "Continuous emissions monitoring system" means a pollution  
19 monitoring system capable of on-site sampling, conditioning,  
20 analyzing, and providing a record of emissions of an air  
21 contaminant at frequent intervals and meets United States



1    Environmental Protection Agency or department of health data  
2    acquisition and availability requirements, where applicable.

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

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

12   "Waste" means any of the following, or combination of the  
13   following:

- 14    (1)    "Waste" as defined in section 342H-1;
- 15    (2)    "Solid waste" as defined in section 342H-1;
- 16    (3)    Plastics;
- 17    (4)    Any material that has been source separated for  
18       recycling or composting purposes;
- 19    (5)    Disaster debris;
- 20    (6)    "Hazardous waste" as defined in 11-261-3, Hawaii  
21       Administrative Rules;





1   produced from anaerobic digestion; provided that these  
2   facilities are not also burning waste."

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

7           SECTION 5. New statutory material is underscored.

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

9

INTRODUCED BY: Mike Gabbard



# S.B. NO. 2328

**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.*

