THE SENATE
THIRTY-SECOND LEGISLATURE, 2024
STATE OF HAWAII

S.B. NO. 2101

JAN 17 2024

A BILL FOR AN ACT

RELATING TO HEALTH.

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

SECTION 1. The legislature finds that according to data from the United States Environmental Protection Agency, waste combustion facilities are among the largest sources of industrial air pollution impacting climate and public health. Burning solid fuels emits significantly more pollution than liquid and gaseous fuels.

The legislature further finds that advances in technology have enabled more effective methods to monitor pollutants emitted by waste combustion facilities. However, in many cases, the technology used to monitor pollutants is obsolete. Consequently, the data regarding the types of pollutants emitted, and the amounts emitted, is inadequate to determine their effect on human health.

The legislature further finds that only four air pollutants are typically monitored on a continuous basis, while others, if tested for at all, are tested only once per year under optimal operating conditions. For example, annual stack testing does

not occur during startup, shutdown, and malfunction conditions, when certain pollutants are known to be released in higher amounts. The legislature further finds that the prolonged downtime of aging incinerators results in higher emissions from startup and shutdown occurrences, but these emissions are not measured by annual stack testing.

The legislature further finds that the continuous monitoring and continuous sampling of emissions provides more accurate data than annual stack testing. When annual stack testing was compared to the continuous monitoring of hydrochloric acid emissions at the nation's largest waste incinerator, it was found that the actual emissions determined by continuous monitoring were eighty per cent higher than that shown by annual stack testing.

The legislature further finds that dioxins and furans are the most toxic man-made chemicals known to science. According to studies of incinerators in Europe, it was observed that continuous sampling for dioxins at incinerators found the actual emissions to be thirty-two to fifty-two times greater than those reported in the United States where they are tested just once per year under ideal operating conditions. Moreover, a more

recent study concluded that the failure to deploy continuous sampling technology in the United States results in underestimating dioxin emissions by 460 to 1,290 times.

The legislature further finds that monitoring incinerators is critical in determining community exposure to health hazards from toxic emissions. While many assume that Hawaii's trade winds blow these emissions out to sea, kona conditions allow them to linger. The legislature also finds that when facilities release these harmful chemicals in kona conditions, nearby communities, some of which are already over-representative of susceptible health conditions, are exposed. Moreover, wherever smokestack emissions occur, released chemicals return to the earth with the rain and when they are blown out to sea, chemicals concentrate in the seafood that is then consumed.

Therefore, the purpose of this Act is to implement continuous monitoring and continuous sampling technologies that have been tested and verified by the United States Environmental Protection Agency at waste combustion facilities and to ensure that waste combustion facility owners continuously monitor, sample, and report the emissions of contaminants.

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

"**§342B- Waste combustion facility monitoring.** (a) The owner of any waste combustion facility shall develop a plan to continuously monitor or continuously sample emissions of the following contaminants:

(1) Carbon dioxide;

(2) Carbon monoxide;

(3) Sulfur dioxide;

(4) Nitrogen oxides;

(5) Ammonia;

(6) Hydrochloric acid;

(7) Hydrofluoric acid;

(8) Particulate matter (total, PM10, and PM2.5);

(9) Volatile Organic Compounds (VOCs);

(10) Polycyclic Aromatic Hydrocarbons (PAHs);

(11) Dioxins or furans;

(12) Polychlorinated biphenyls (PCBs);

(13) Per- and polyfluoroalkyl substances (PFAs);

(14) Arsenic;

(15) Beryllium;

(16) Cadmium;

(17) Hexavalent chromium;

(18) Lead;

(19) Manganese;

(20) Mercury

(21) Nickel;

(22) Selenium; and

(23) Zinc.

Where technologically feasible, the plan shall provide for the use of a continuous emissions monitoring system to monitor air contaminants. If it is not technologically feasible to use a continuous emissions monitoring system to monitor an air contaminant, the plan shall provide for the use of a continuous automated sampling system to continuously sample an air contaminant.

(b) The plan shall describe how the owner will:

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

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

(c) Emissions data shall be reported on a website hosted by the department. The department shall issue protocols to be used by the owner or operator of the waste combustion facility to report data in a timely manner. The department may set annual fees for the owner of a waste combustion facility to cover costs of the website development and hosting, and to cover the department's cost of enforcing this section.

The data disclosure website shall be designed to immediately alert by email, the owner, the department, and any other parties who enroll to be notified of any violations of data availability requirements or exceedances of local, state, or federal air pollution limitations. For both types of violations, email notices shall be available at the frequency of the recipient's choosing: as they occur, or on a daily, weekly, monthly, quarterly, or annual basis. All continuous emissions monitoring systems data that is available in a digital format shall be supplied in real-time through an Internet feed to the website. Data shall be submitted to the website no later than twenty-four hours after the data is available. Data shall be displayed in line charts for each pollutant, including a line showing the level of each applicable emissions limit for the

pollutants and a calculated line displaying rolling averages in cases where regulatory limits are based on the averages. The emissions limits displayed shall be adjusted whenever permitted emissions limits change, showing the proper limits that apply at a given time.

All data submitted to the website shall be archived and made available for download in a commonly-available spreadsheet or database format. Emissions data that exceeds state or local emissions limits shall appear on the website in red-colored text so that violations are readily distinguishable from the rest of the data. The website shall display summary charts listing all violations of any applicable emissions limits per pollutant for each facility reporting under this section. Daily, weekly, monthly, and yearly summaries of emissions levels and violations shall be made available in an easily understandable presentation format. Emissions trend data shall be presented in line charts, showing the totals for all reporting facilities, as well as facility-specific trends from the beginning of the reported set through the most recent year. If the facility owner has provided any explanation for a violation, that explanation shall

also be listed on the website, available from wherever the violation is displayed.

Any gaps in continuous emissions monitoring system data reporting shall be reported as null values, and explanations shall be reported to the website as separate comments associated with the data gaps or violations. A waste combustion facility with multiple units or boilers shall separately present the data for each unit or boiler. The operating status for each boiler shall be reported hourly by the owner and operator of any waste combustion facility and shall be reported on the data disclosure website, so that emissions data can be displayed alongside information stating whether certain boilers are operating or not, or are in a process of startup or shutdown.

In addition to the display of emissions data in measurement units corresponding with state and local emissions limits (i.e., twenty-four-hour averages displayed alongside twenty-four-hour limits), monthly and annual totals shall be presented in pounds. The monthly and annual emissions of each pollutant, in pounds, shall be presented alongside the state and local permit limits in the same units, converted from the concentration limits. The waste combustion facility owner shall disclose stack test data

for any air pollution stack test conducted at the facility that is required by state or federal permits. Beginning July 1, 2024, new stack test data for any stack test conducted shall be submitted to the data disclosure website no later than forty-eight hours after the data is available to the owner of the waste combustion facility.

(d) By October 1, 2024, the owner of a waste combustion facility shall submit the plan required by this section to the department. Before approving the plan, the department may make modifications to the plan as necessary to ensure the quality and accuracy of sampling or monitoring data. The owner of a waste combustion facility shall implement a plan approved by the department no later than three months after the date of the approval.

(e) Notwithstanding subsection (d), the department may, at the department's discretion, for good cause shown, extend the three-month deadline for submitting or implementing the plan required by this section.

(f) The data from continuous monitoring and sampling of air contaminants not already required to be continuously monitored shall not be used for enforcement purposes until the

time that the director determines that the data is reliable enough for that purpose. On an annual basis starting twelve months after the first use of new continuous monitoring and sampling equipment established under this section, the director shall issue a determination on whether the data is reliable for use in the enforcement of permit limits. Within six months of a determination, the department shall publish rules for enforcement, which shall start no later than twelve months after the department's determination.

Where existing permit limits for a pollutant are based on annual stack tests, new rules for permit limits based on continuous monitoring or sampling shall closely match the existing limits as much as possible, with averaging times not to exceed twenty-four hours. Where permit limits do not exist for a pollutant required by this section, the department may establish permit limits based on control systems that are technologically possible and best protect public health and the environment. The director may determine that data on certain, but not all, air contaminants are reliable and ready for enforcement; provided that the department shall make reliability determinations for remaining contaminants.

(g) The department shall submit a report of the results of the continuous monitoring and sampling required by this section, including any proposed legislation, to the legislature no later than twenty days prior to the convening of each regular session."

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

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

"Continuous emissions monitoring system" means a monitoring system for continuously measuring the emissions of an air contaminant from an incinerator.

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

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

(1) "Waste" as defined in title II, chapter 58.1, Hawaii Administrative Rules;

(2) Plastics;

(3) Any material that has been source separated for recycling or composting purposes;

(4) Disaster debris;

(5) "Hazardous waste" as defined in title II, chapter 261, Hawaii Administrative Rules;

(6) Processed engineered fuel;

(7) Solid recovered fuel;

(8) Refuse-derived fuel; or

(9) Any material determined by the United States Environmental Protection Agency or state agency to be a non-hazardous secondary material.

"Waste combustion facility" means any non-residential facility that:

(1) Disposes of waste, uses waste to heat an industrial process, or uses waste to produce energy, including heat, electricity or a burnable fuel;

(2) Performs the actions specified in paragraph (1) through the combustion of waste, or gases produced on-

site from the burning, gasification or pyrolysis of waste, or by producing a solid, liquid, or gaseous fuel product through conversion of waste; and

(3) Is capable of processing at least five tons of waste per day.

"Waste combustion facility" does not include landfills, anaerobic digesters, or facilities burning landfill gas or gas produced from anaerobic digestion; provided that these facilities are not also burning waste."

SECTION 4. The director of health shall submit to the legislature, no later than twenty days prior to the convening of the regular session of 2025, a report of the progress made in implementing section 3 of this Act.

SECTION 5. In accordance with section 9 of article VII of the Hawaii State Constitution and sections 37-91 and 37-93, Hawaii Revised Statutes, the legislature has determined that the appropriations contained in Act 164, Regular Session of 2023, and this Act will cause the state general fund expenditure ceiling for fiscal year 2024-2025 to be exceeded by $ or per cent. This current declaration takes into account general fund appropriations authorized for fiscal

year 2024-2025 in Act 164, Regular Session of 2023, and this Act only. The reasons for exceeding the general fund expenditure ceiling are that:

(1) The appropriation made in this Act is necessary to serve the public interest; and

(2) The appropriation made in this Act meets the needs addressed by this Act.

SECTION 6. There is appropriated out of the general revenues of the State of Hawaii the sum of $, or so much thereof as may be necessary for fiscal year 2024-2025, for the department of health to ensure the planning and implementation of continuous monitoring or sampling required by this Act.

The sum appropriated shall be expended by the department of health for the purposes of this Act.

SECTION 7. New statutory material is underscored.

SECTION 8. This Act shall take effect on July 1, 2024.

INTRODUCED BY: _____

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S.B. NO. 2101

Report Title:
DOH; Waste Combustion Facilities; Pollution; Air Contaminants; Public Health; Report to Legislature; Expenditure Ceiling; Appropriation

Description:
Requires waste combustion facility owners to implement continuous monitoring and sampling technologies for the purposes of collecting data regarding emissions. Establishes a publicly available website hosted by the Department of Health that will track and display data collected on emissions. Requires the DOH to adjust permit limits for air contaminants based on emissions data collected. Requires reports to the legislature. Declares that the general fund expenditure is exceeded. Makes an appropriation.

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