



TO: Chair Sollman Vice-Chair Findley and Members of the Senate Energy and Environment Committee

FR: Lisa Arkin, Executive Director

DT: March 9, 2023

RE: Testimony to the Senate Committee on Energy & Environment in Support of SB 488

Dear Chair Sollman, Vice-Chair Findley, and Committee Members,

On behalf of Beyond Toxics, a state-wide environmental justice nonprofit, and thousands of our supporters across the state, including the mid-Willamette Valley, I express our strong support of SB 488. Beyond Toxics has been an active public interest participant in policy decisions related to air quality and public well-being for over twenty years. We are deeply invested in policies that promote environmental justice principles. Beyond Toxics was and still is actively involved in efforts to develop and implement air toxics rules in collaboration with the Oregon Department of Environmental Quality (DEQ), including serving many years on the Cleaner Air Oregon Rules Advisory Committee since its inception. In addition, we have assisted and partnered with residents of the mid-Willamette Valley—from Woodburn to Salem to Corvallis—as a liaison to the Oregon Department of Environmental Quality (DEQ) on permits for air pollution and solid waste for industrial facilities such as waste incinerators.

Oregon’s single waste incinerator, Covanta Marion (Covanta), burns untreated out-of-state medical waste in some of the largest quantities in the entire nation. The pollution from incineration endangers the lives and long-term health of our communities, particularly the children going to schools close by this toxic facility. The purpose of SB 488 is to close a regulatory loophole that allows this waste incinerator to operate under outdated rules that fail to protect Oregon’s people and environment from harmful levels of toxic air pollution. Covanta has a ten-year history of incinerating medical waste at a rate that triggers stringent federal regulatory limits for air toxics, but in Oregon, Covanta is not held to the federal standard. This air permitting loophole allows the DEQ to under-regulate the Covanta facility as a municipal trash incinerator despite the reality that Covanta’s operations trigger the stricter federal criterion for a large medical waste incinerator that, under federal laws, requires more protective air emission limits.

A brief history of Covanta.

Covanta began operations nearly 40 years ago, in 1986, which makes it one of the oldest incinerators of its kind in the nation. Covanta was constructed with funds provided by Marion

County residents through a bond. Covanta is under contract with Marion County to execute the established purpose of burning in-county municipal solid waste and in-county regulated medical waste for the county.

Incineration was promoted in the past, in part, to reduce the volume of waste. While incineration reduces volume, it doesn't destroy waste. Incineration changes the form of the waste, increasing the availability of the toxicity of the many pollutants it contains, and then releasing these pollutants as either air emissions, wastewater emissions, or incinerator ash and eventually leachate. Although it's convenient to think of incineration as a way to solve waste problems by making them appear to "disappear," incineration results in a chemical transformation creating new toxic waste problems that foul the environment with highly toxic and bio-persistent chemicals such as dioxin and heavy metals.

In addition to air pollution, Covanta's incineration of nearly 180,000 tons of solid waste creates large piles of fly ash and bottom ash, also a toxic liability. For every ton of waste burned, on average, 30% ends up as incinerator ash.¹ Ninety percent of this ash is bottom ash which remains on the grate beneath the broiler, and 10% is highly toxic fly ash comprised of the heavy metals (e.g., cadmium, lead, mercury) and other toxic pollutants (e.g., particulates, sulfur dioxide, dioxins) captured by the incinerator's pollution control devices. This highly toxic fly ash is then combined with the bottom ash at the facility. The ash generated from the combustion process is disposed of at the North Marion County Disposal Facility in Woodburn or the Coffin Butte landfill north of Corvallis.²

The danger of the ash used for landfill cover is that the heavy metals in the ash are now fine particles that pose a greater danger because fine particles are more mobile through air transport and easily absorbed which makes them more likely to impact people living near the Coffin Butte landfill. Covanta stated that the incinerator does not produce leachate, but that is technically incorrect. The ash monofill where the ash is stored generates tens of thousands of gallons of leachate annually. This leachate can contaminate ground and surface water supplies. The leachate is also trucked back to Covanta by tens of thousands of gallons and injected into burners as a liquid quench. In regards to leachate injections, the DEQ stated that incinerating leachate presents a potential worst-case emissions scenario. This is because leachate contains heavy metals and halides which could contribute to increased higher toxic air contaminant emissions. Leachate is an ongoing and recurring waste stream burned at the facility.³

¹ Earthjustice, Vestiges of Environmental Racism (2021) at 8, https://earthjustice.org/wp-content/uploads/earthjustice_ca-incinerator-report_20211108.pdf

² DEQ Solid Waste Permit #364 for Covanta Marion, Expiration Date: June 30, 2031.

³ Email communication from DEQ staff Julia DeGagne to Lisa Arkin sent on 1/30/2023. Available upon request.

Municipal waste incineration emissions limits no longer fit Covanta's operations.

EPA's standards for hospital/medical/infectious waste incinerators define those as incinerators "that combust[] *any amount* of hospital waste and/or medical/infectious waste."⁴ The definition does not exclude incinerators that accept both municipal solid waste and medical waste such as Covanta. Due to the toxicity of burning medical waste, U.S. EPA regulations mandate that medical waste incinerators meet much more stringent air pollution standards than solid waste incinerators. The U.S. EPA sets more stringent standards for medical waste incinerators because medical waste—which is mostly plastic—emits more harmful air pollutants, including mercury and dioxin. In August of 1997, EPA promulgated regulations creating stringent emission standards for medical waste incinerators due to significant concerns over detrimental air quality affecting human health and revised the Hospital Medical Infectious Waste Incinerator (HMIWI)⁵ standards most recently in May of 2013.⁶

The substantial increase in tonnage of medical waste being incinerated at Covanta places the facility into a different category of air pollution and resulting health risks. Per their contract with Marion County, Covanta's municipal waste incinerator can accept up to 18,000 tons of medical waste per year, which would average 4,000 pounds of medical waste burned per hour if Covanta operates at their allowed capacity, nearly 10 times the federal limit for a *large* medical waste incinerator.⁷ As recently as 2021, despite being regulated by the Oregon DEQ as a municipal solid waste incinerator as was its original purpose, this facility emitted 6 times over the levels the EPA allows for a medical waste incinerator.^{8,9}

The current Title V air quality permit for the Covanta incinerator provides multiple loopholes that make it much easier for the facility to meet emissions limits, including one that puts ***no quantitative limit on the amount of highly toxic mercury emitted*** as long as the incinerator's

⁴ 40 C.F.R. § 60.51c (emphasis added).

⁵ EPA, *Hospital, Medical, and Infectious Waste Incinerators (HMIWI): New Source Performance Standards (NSPS), Emission Guidelines, and Federal Plan Requirements Regulations*, <https://www.epa.gov/stationary-sources-air-pollution/hospital-medical-and-infectious-waste-incinerators-hmiwi-new>

⁶ EPA, *Medical Waste*, <https://www.epa.gov/rcra/medical-waste>.

⁷ Tracy Loew, Statesman Journal, *Oregon may tighten Covanta waste incinerator emissions, require health study* <https://www.statesmanjournal.com/story/tech/science/environment/2023/01/22/brooks-oregon-emission-regulations-covanta-municipal-waste-incinerator-pollution-study/69807900007/>.

⁸ 40 CFR 60.51c (Large HMIWI) at 290, <https://www.govinfo.gov/content/pkg/CFR-2010-title40-vol6/pdf/CFR-2010-title40-vol6-sec60-51c.pdf>.

⁹ Following is the mathematical calculation demonstrating that Covanta currently burns over 6 times the amount of medical waste that the federal code of regulations uses to define a large medical waste incinerator. We took the 2021 DEQ Covanta Review Report on tons of medical waste burned for that year (14,168 tons); Multiple by 2,000 to get total pounds (28,336,000); Took the number of hours in the year (8,760); Subtracted 504 hours to account for 21 days of no operation (holidays and maintenance) (8,256 hours); Divide Covanta's 28,336,000 total pounds burned in 2021 by the 8,256 hours they operated (3,432 pounds per hour); The result is that Covanta burns on average 3,432 pounds per hour; This number is 6.8x over the EPA criterion of 500 pounds per hour of medical waste throughput (3,432 divided by 500) if Covanta burned every hour for 344 days/year.

filtration system removes at least 85% of whatever amount enters it,⁴ which is only **estimated** once per year based on annual stack testing. ***SB 488 will fix the “percentage reduction” loophole for mercury***, as well as for sulfur dioxide and hydrogen chloride.⁴ ***SB 488 will fix the loophole that allows Covanta to exceed the 10% limit on medical waste*** if other conditions of emissions monitoring are met.¹⁰

For Covanta regulated under DEQ air quality rules, all of this occurs under the incorrect pretense of being regulated as a *municipal* waste incinerator, a regulation that is not as strict given the polluting factors. Covanta is allowed to operate under a permit that no longer accounts for its current operations. ***SB 488 will fix that huge emissions limits loophole.***

Covanta’s current air emissions present a clear and present danger to the health of Oregonians in the surrounding communities that are heavily populated with several categories of ***environmental justice populations***. We reference testimony submitted by PCUN, the organization representing the communities of color in the airshed of Covanta.

The EPA holds medical waste incinerators to more stringent air emission limits.

As mentioned above, the U.S. EPA mandates more stringent air pollution standards for medical waste incinerators, in part, because medical waste contains considerable quantities of plastic and especially polyvinyl chloride (PVC) plastic. Incineration of plastics (and the many additives contained within these plastics) produces many major air pollutants, e.g., particulate matter, nitrogen oxides, volatile organic compounds, and heavy metals such as lead, mercury, and cadmium. For example, the federal maximum allowable emissions levels for each of the following toxic air contaminants (TACs) are considerably more protective (i.e., more stringent) for medical waste incinerators than municipal waste incinerators: particulate matter, hydrogen chloride, sulfur dioxide, carbon monoxide, nitrogen oxides, cadmium, lead, mercury, and compounds like dioxins and furans—the most toxic class of chemicals known. This incineration also pollutes agricultural soils, rivers, and the air with heavy metals and toxic chemicals which can further harm human health and wildlife.

According to calculations provided by the DEQ in their 2020 Covanta Review Report, if the Covanta incinerator had already been required to meet the emissions standards contained in SB 488 in the years 2013 through 2019, the facility would have exceeded the federal limits every year for the acid gasses and toxic heavy metals by multiple times over in most cases.¹¹ The same is probably true for subsequent years, but the DEQ 2020 Review Report did not include years after 2019. ***We believe that based on the agency’s own calculations of emission exceedances***

¹⁰ Covanta Title V Permit number: 24-5398-TV-01, Condition 26a. Also OAR 340-218-0050(3)(a)(C) / 340-226-0120(1): “Each combustor is limited to burning no more than 10% medical waste unless testing of the combustor is completed while the combustor is burning more than 10% medical waste then the combustor is limited to burning no more than the test rate, whichever is greater, as long as no emission limit was exceeded.”

¹¹ DEQ Covanta Marion 2020 Review Report, at 72.

*based on comparisons with the federal rules, the setting of stricter standards has a well-documented basis for such action.*¹²

Based on the data provided in the DEQ’s 202 Review Report, Covanta’s emission exceedances can be visualized in the chart below.

Covanta Marion (OR)						
Pollutant	Units of Measurement	Covanta Marion Current Permit	Covanta 2013-2019 Average Emissions*	Highest Emission Rate 2013-2019 from Source Tests	Federal Large New Medical Waste Incinerators Limits	Amount Average Emission is over the Federal Limits
Particulate Matter	mg/m ³	25	6.43	16.55	18	
Hydrogen Chloride	ppm	29	11.06	18.36	5.1	2x
Sulfur Dioxide	ppm	29	36	29**	8.1	4.4x
Carbon Monoxide	ppm	100	88	98	11	8x
Nitrogen Dioxide	ppm	205	191	195	140	1.3x
Cadmium	mg/m ³	0.02	0.0014	0.0026	0.00013	10.7x
Lead	mg/m ³	0.2	0.0052	0.0153	0.00069	7.5x
Mercury	mg/m ³	0.05	0.0034	0.0061	0.0013	2.6x%
* (red indicates exceedance of federal medical waste incinerator standards)						
** (See 2020 Covanta Review Report p. 60: The discrepancy between average and highest SO2 emissions is because DEQ omitted the higher emissions in 2014, 2015, & 2016 due to a loophole that allows the polluter to meet the emission standards by reducing the pollutant by 75% regardless of the actual concentration.						
Source: Oregon DEQ, 2020 Review Report/Permit No. 24-5398-TV-01 for Covanta Marion, p. 72						

Under the Clean Air Act, states may be more protective than the EPA’s regulatory floor. If passed, SB 488 will give authority to the DEQ to fix the incinerator’s regulatory loophole by applying the relevant federal air pollution emission standards to Covanta as laid out in 40 CFR 60.52c. This federal regulation requires an incinerator that burns more than 500 pounds of medical waste per hour on a rolling quarterly basis be regulated as a new large medical waste incinerator, or an incinerator burning between 200 - 500 pounds per hour to be regulated as a medium-sized medical waste incinerator. The result will be that Covanta will be required to reduce toxic emissions *based on its actual operations*. This is different and more protective than the permit issued by the DEQ under the category of a municipal solid waste incinerator, a category that no longer fits Covanta’s operations.

The Cleaner Air Oregon program cannot close the medical waste regulatory loopholes.

Cleaner Air Oregon (CAO) is a program of health-based Oregon’s air toxics regulation adopted by the DEQ in 2019. Covanta was required to enter the Cleaner Air Program on August 13, 2020. The first step is for a facility to conduct emissions testing to produce an Emissions Inventory. The DEQ has granted Covanta four separate extensions for the emissions inventory,¹³

¹² DEQ Covanta Marion 2020 Review Report “Issue 16,” at 72.

¹³ See Cleaner Air Oregon: Covanta Marion, <https://www.oregon.gov/deq/aq/cao/wr/Pages/Covanta-Marion.aspx>

*and the agency is still finding testing results that did not meet the mandatory testing protocols.*¹⁴ At 2 ½ years into the Cleaner Air Oregon program, the DEQ has not yet approved Covanta's Emission Inventory. The polluter has not produced the monitoring protocol, the risk assessment plan, or the risk assessment itself. These steps will likely take many more years. CAO does not have a technical or policy path to require Covanta to reduce its toxic emission to the levels that are considered safe by the US EPA for medical waste incinerators without the passage of SB 488. Please see the written testimony from the Northwest Environmental Defense Center (NEDC) for more details on how CAO is unable to address Covanta's pollution.

Further, Covanta emits many different types of pollutants that vary due to the heterogeneous and changing nature of the waste being burned. The permit that would be issued to Covanta under the CAO program does not mean a lack of harm to human health and the environment. Emission standards for incinerators are not based on what is safe for public health but rather on various emission factors, modeling formulas and what is technologically feasible. The CAO program may require Toxics Best Available Control Technology (TBACT) requirements. TBACT may be based on a design standard, equipment standard, work practice standard or other operational standard, or a combination thereof.¹⁵ As a result, meeting health based-criteria using technical permit limits does not necessarily mean that the harm to community members' health and the environment has been minimized.

Meeting the needs of hospitals to comply with Oregon's requirements for medical waste.

The passage of SB 488 will not prevent Covanta from continuing to accept medical waste from Marion County and other hospitals in Oregon. Oregon is one of the few states that require hospitals to burn pathological waste. Based on the most recent figures that the DEQ has for the tonnage of medical waste burned at Covanta,¹⁶ only 5% of the medical waste is from Marion County, and 5.8% is accepted from other locations within Oregon. Nearly 90% of all the medical waste Covanta incinerated came from out-of-state, including California, Washington and Canada. The point is that Covanta could continue serving Marion County medical facilities without triggering the federal limits for medical waste incineration, and likely would also be able to meet the needs of hospitals throughout Oregon because pathological waste is a small percentage of total medical waste.

¹⁴ Notes: Meeting with DEQ regulators regarding Covanta Marion Cleaner Air Oregon process on 3/06.2023. Available upon request.

¹⁵ DEQ Cleaner Air Oregon website. <https://www.oregon.gov/deq/qaq/cao/Pages/faq-step7.aspx>

¹⁶ DEQ Covanta Marion 2020 Review Report at 72.

Covanta's lax and outdated permit is not a new issue.

County residents have been providing public testimony to the DEQ for seven years requesting that state regulators evaluate whether Covanta meets the 2015 federal limits for a new medical waste incineration and if it does, adopt these federal standards. Any state can adopt federal standards or even stricter standards. Despite repeated public comments on this matter, the DEQ has not done so.

Conclusion.

SB 488 asks the legislature to establish a policy for medical waste incineration in Oregon to protect public health in a way that will be beneficial to all in the Willamette Valley airshed—especially those facing health vulnerabilities and inequities (e.g., youth, elders, the disabled, low-income communities and nearby communities of color). SB 488 would provide a well-justified mandatory reduction in the quantities of air pollutants discharged from Covanta. **SB 488 references federal law and the science the EPA relied on to formulate the federal emissions limits for medical waste incineration to promote environmental health and safety. Proposing other standards would be inconsistent with the current legal and scientific framework for medical waste incineration.**

We urge you to send SB 488 with a firm “do pass” recommendation to the floor of the Oregon Senate. This legislature must ensure that Oregon’s facilities are accurately regulated, and protect our most vulnerable populations from the most harmful pollutants. Passing SB 488 will be a crucial step to doing so.

Thank you for your time, and this opportunity.

Sincerely,

Lisa Arkin
Executive Director