To: Senate Committee on Rules, Oregon Legislature Re: SB 451 May 13, 2019

Good Afternoon Chair Burdick and Committee Members:

I am Dr. Theodora Tsongas. I am an environmental health scientist/epidemiologist with over 40 years' experience evaluating the health effects of environmental pollutants. I am speaking on behalf of Oregon Physicians for Social Responsibility. In previous comments on this Bill I have expressed my concerns about the folly of SB 451 and the likelihood that it will result in increased risks of acute and chronic illness and death in persons exposed to emissions from the incineration of municipal wastes including medical wastes. That was in early March. I am here today to emphasize that my concerns continue.

Combustion produces CO2 among other air pollutants. It is counterintuitive and counterproductive to permit an incinerator to receive renewable energy credits for generating electricity by generating a greenhouse gas. The Covanta Marion facility is the 20th highest industrial source of greenhouse gas emissions in Oregon; that's by emitting 160,000 metric tons of carbon dioxide equivalents every year. Oregon's renewable portfolio standard is meant to reduce greenhouse gas emissions. Awarding waste incinerators renewable energy credits will only give incentive to burn more waste and discourage cleaner, non-emitting and more effective alternatives to manage and reduce waste.

Combustion of municipal wastes produces and emits particulate matter and dioxins to the air that are then transmitted over long distances and deposited in water and soil, on vegetation, and inhaled or ingested by people and other living things. Dioxins are some of the most toxic compounds known, and persist indefinitely in the environment, continuing to cause cancer, birth defects and other disorders. Particulate matter, especially fine and ultrafine particulate matter, is known to cause disease of many systems of the body, including lung, heart, circulatory, neurologic and reproductive systems. Thus the formation of toxic products of combustion and the efficiency with which they are or are not removed remains a great concern. What assurances do we have that compliance with strict parameters for complete combustion will be in operation AT ALL TIMES at Covanta Marion? We have none.

The ash that remains behind contains concentrated metals and other toxic contaminants that are not removed by incineration. These are sent to landfills where there is a potential that they will be released to soil, surface and ground water, and will contaminate them through accident or error.

The communities nearby have experienced higher cancer and lung disease rates than the rest of the state. Do we need a smoking gun? We ought to be thinking in terms of prevention as the least expensive way to manage disease and illness, to increase the health and well-being of Oregonians, rather than increasing risks to all of us.

And, in terms of adverse health impacts, we have very little time to act to prevent the advance of catastrophic climate disruption. We have felt many of the effects in Oregon and throughout the world. Your responsibilities are great, and wasting time and valuable resources on so-called compromises does you no credit. Please act responsibly and reject SB 451 in all its forms.

Thank you for your attention.

Theodora Tsongas, PhD, MS

Reference: Stephania A. Cormier, Slawo Lomnicki, Wayne Backes, and Barry Dellinger. 2006. Origin and Health Impacts of Emissions of Toxic By-Products and Fine Particles from Combustion and Thermal Treatment of Hazardous Wastes and Materials. *Environmental Health Perspectives* 114:810-817. https://doi.org/10.1289/ehp.8629