



HB280 - Maryland Recycling Act-Recyclable Materials and Resource Recovery Facilities – Alternations - SUPPORT

Mr. Chairman and Members of the Environmental and Transportation Committee,

My name is Dr. Gwen DuBois, and I am President of Chesapeake Physicians for Social Responsibility (CPSR). CPSR is a statewide organization of over 700 e-activist physicians and other health professions who support sound evidenced based public health policy. CPSR works to amplify the health science voice and energize medical and health professionals and health advocates to take action on issues the two major public health crises we face nationally and globally: Climate Crisis and growing threat of Nuclear War. We also address health consequences of toxics in the environment and look for solutions through a social justice prism.

We support HB280 because this bill: 1) prevents incineration from counting as recyclable material and 2) strips the 5% waste diversion credit for municipal waste. Incinerator ash is highly toxic to humans as I will describe. Therefore, we should not be giving incentives for the production of toxic incinerator ash nor subsidize a form of pollution that the evidence suggests could make some Marylanders sick. We are paying once for subsidies and again for medical bills and lastly for economic losses that accompany illness.

Incinerating municipal waste doesn't get rid of the health problem of disposing of waste. It creates new problems. Incineration puts pollutants into the air, the soil, the water. **Air pollution controls** are a good thing so that we don't breathe in everything we burn. But what isn't released into the air is **concentrated in the material that is left behind in the ash: 30% of the original weight and 40-50% of the original volume which then has to be disposed of safely and unfortunately is not.** Bottom ash consists of large pieces of metal glass and ceramics, dioxin and incompletely burned material that is collected from the bottom of the incinerator.

Fine ash, collected from the pollution control devices consists of highly toxic fine particulate matter laced with heavy metals, dioxin, fine acids, and other pollutants. While **in Europe** bottom ash may be used for road fill, the **fly ash is considered so toxic that it is not even tested but never used.** In the United States, to get around a Supreme Court Ruling, fly ash is mixed and diluted with the less toxic bottom ash, avoiding the requirement to treat the fly ash as hazardous.

The process of incineration **creates**, let me repeat, creates one of the most notorious families of substances of all, dioxins, which are a family of compounds the most toxic of which is 2,3,7,8-tetrachlorodibenzo-p-dioxin (TCDD). TCDD has been **designated by the World Health Organization as a known human carcinogen.**

Dioxins are considered one of the “dirty dozen” persistent organic pollutants because of its long half-life. It accumulates in the environment including where animals graze, **it gets concentrated up the food chain where we are on top. It is concentrated in our body fat** as we eat: meat, fish and dairy products. **In** addition to being a carcinogen, it is **linked to diseases of the immune system, endocrine system, nervous system and reproductive system.** The [developing fetus](#) is particularly sensitive to its effects. Dioxins are mostly found in the fly ash and to a lesser extent in the bottom ash in [older incinerators](#).

Incinerators create another dangerous health problem, **when heavy metals** like lead, mercury, cadmium, chromium and arsenic are burned and vaporized into gases, and particles. **Cadmium largely found in fly ash** has been **designated a carcinogen** by the WHO for its link to lung cancer. It is also associated with kidney damage and damage to bones as well.

Lead is another heavy metal that depending on the temperature may end up in the fly ash or bottom ash. Lead is toxic to children’s brains, and [even low-level lead exposure](#) can result in persistent impairment in learning and other complex cognitive tasks. Lead can cause **loss of IQ, increased distractibility, impulsivity, short attention span, increased antisocial behavior and these changes are believed to be irreversible.** Lead can also cause [anemia, high blood pressure and kidney damage](#). Prenatal exposure can lead to [lower birth weight](#).

Particulate matter with aerodynamic diameters <2.5 micrometers (pm2.5) is **found in fly ash**. It is an aerosol that is so small, 1/30th the diameter of a human air, that it is easily inhaled. Combined with heavy metals or other pollutants, it acts like a very small delivery system that, when inhaled evades the body’s defenses. PM2.5 allows pollutants to be delivered deep into human lungs, pass into the blood stream and deposited in different body organs. Animal evidence suggests that pm2.5 can travel from the nasal mucosa, and olfactory nerve into the frontal lobe of the brain. PM2.5 is deadly. It is associated with an increase all-cause mortality, an increase as well in asthma, ischemic heart disease (heart attacks). [Low income, Medicaid and black urban patients are particularly at risk of death from pm2.5 pollution](#) possibly because they are disproportionately exposed to higher levels of air pollution. **Incinerator and landfill operators exposed to bottom ash and fly ash are likely to be the most exposed to all of the above.** There is also a concern that ash being [hailed away to landfill will expose residents](#) to fugitive particles and diesel emissions in the neighborhoods through which these trucks carry their waste.

I have highlighted some of the health effects. Pollutants acting together are likely even more toxic than when exposures are to just one toxic chemical. As mentioned above, some populations are more sensitive to the health effects than others.

There is an environmental injustice component to where we locate facilities where incineration and ash dumps are located.

For all of these reasons, CPSR strongly suggest passage of HB280 and asks for a favorable report.

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