CHESAPEAKE PSR
PHYSICIANS FOR SOCIAL RESPONSIBILITY

HB – 0332 - Renewable Energy Portfolio Standard - Eligible Sources - SUPPORT

Economic Matters
Sponsor: Delegate Ivey

The Chesapeake Physicians for Social Responsibility (CPSR) SUPPORTS HB 332.
My name is Dr. Gwen DuBois, and I am President of 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.

CPSR supports HB0332 because of the dangerous health effects caused by burning municipal waste. Bresco was identified as the single largest industrial polluter in Baltimore in 2017. Though incineration emits many pollutants into the air, here I will speak about mercury, dioxin, nitrogen oxides and particulate matter (pm) 2.5.

Incinerators release several times more mercury per unit energy as Maryland's largest coal fire power plants. It gets into streams and lakes and is concentrated in fish which we then eat. Mercury is toxic to the developing brain of fetuses, infants and children and is associated with abnormalities in thinking, memory, and language that can be severe if exposure is significant. Dioxin. Dioxin is created in the smokestack and is one of the most notorious families of toxic substances. It has been designated by the World Health Organization as a known human carcinogen: capable of causing cancer. It is considered one of the "dirty dozen" persistent organic pollutants because of its long half-life. It accumulates in the environment 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.

Bresco, in 2016, was the 5th largest stationary source of nitrogen oxides (NOx) emissions in the State. Increase in nitrogen oxide levels are associated with worsening of asthma, emergency room visits and hospitalization Ozone pollution can put active children who play outside at increased risk of developing asthma. Reducing NOx emissions is an important way to reduce ozone pollution. This is important in Baltimore where we have more than double the emergency room and hospitalization rate as average rates as Maryland.

P.O. Box 10445 –Baltimore, Maryland 21209
Email: bikenotbomb@gmail.com

Nitrogen dioxide and fine and very fine particulate matter (pm2.5) have been associated with reduced lung function in children and most importantly with improvement in lung function when levels of these two pollutants are reduced.

Regarding **pm2.5,** the BRESCO incinerator emitted 27.5 tons of this dangerous pollutant in 2017. "Hundreds of articles" have established an association between PM2.5 and poor health outcomes, including asthma, ischemic heart disease, lung cancer 12 and all-cause mortality especially in urban populations. These very small particles combine with carcinogenic chemicals and heavy metals and can deliver them, once inhaled, deep into the lungs and cross into the bloodstream where they are carried around the body and cause damage. Heavy metals attached to fine particulate matter have been found to travel up to the frontal lobe in animals and raise the possibility that they may be a factor in degenerative brain diseases in humans like Parkinson's and Alzheimer's disease. From pm2.5 alone, a recent report estimated that the yearly direct and indirect health costs to Maryland from this one pollutant emitted from BRESCO in one year reached $22 million. Recent studies have found a positive association between historic pm2.5 levels and mortality from Covid-19.

Mercury, dioxin, nitrogen oxides (NOx), pm 2.5, these are just a few of the notorious elements of the toxic stew emitted in the air from incinerating municipal waste. Though pollution controls keep these pollutants out of the air, they don't get rid of them but merely concentrate them in the ash which ends up in the soil and water. Workers, residents and those downwind of an incinerator are at risk of lung cancer, neurological damage, asthma and increased mortality. We should be working toward minimizing our waste by composting food scraps, recycling, reusing and rethinking what we throw out. It is time to plan how to replace this source of pollution. We surely should remove financial incentives that promote this technology.

For these reasons, CPSR supports HB 332 and asks for your favorable report.

Gwen L. DuBois MD, MPH
President
Chesapeake Physicians for Social Responsibility
Email: gdubois@jhsph.edu