Heather Cantino opponent testimony to Ohio SB 222 Dec. 2, 2019

I write to oppose this dangerous, anti-democratic bill that violates Ohio's home rule as well as your duty as elected officials to serve the public interest. It is outrageous that people like Rep. Jay Edwards and probably others of you try to hide behind absurd claims to care about protecting poor people in supporting such a bill. In fact, if he and you care about poor people, then you would be working against the dangerous pollution and climate destruction being caused by the plastics industry at all stages of its lifecycle, from extraction of its components with their toxic-laden and climate-destroying fracking emissions, through production, transportation, and disposal of countless toxic substances, which are now found in creatures on sea and on land, including, now widely, in humans. If you care about Ohioans' well-being and the most vulnerable among us, you would be supporting public medical care for the Ohioans who will increasingly suffer from air and water pollution created by plastics extraction and production emissions as this industry expands in our region, and you would be preventing the dumping of the toxic, radioactive waste from these processes already being dumped in our communities throughout eastern and SE Ohio to the tune of billions of gallons a year.

I reference the Center for International Environmental Law Report, *Plastics and Health: The Hidden Costs of a Plastic Planet* (2019, exec summary excerpts) for most of the remainder of my testimony:

"At every stage of its life cycle, plastic poses distinct risks to human health, arising from both exposure to plastic particles themselves and associated chemicals. …

Extraction and Transport of Fossil Feedstocks for Plastic: The extraction of oil and gas, particularly the use of hydraulic fracturing for natural gas, releases an array of toxic substances into the air and water, often in significant volumes. Over 170 fracking chemicals that are used to produce the main feedstocks for plastic have known human health impacts, including cancer, neurotoxicity, reproductive and developmental toxicity, impairment of the immune system, and more. These toxins have direct and documented impacts on skin, eyes, and other sensory organs, the respiratory, nervous, and gastrointestinal systems, liver, and brain.

Refining and Production of Plastic Resins and Additives: Transforming fossil fuel into plastic resins and additives releases carcinogenic and other highly toxic substances into the air. Documented effects of exposure to these substances include impairment of the nervous system, reproductive and developmental problems, cancer, leukemia, and genetic impacts like low birth weight. Industry workers and communities neighboring refining facilities are at greatest risk and face both chronic exposures and acute exposures due to uncontrolled releases during emergencies.

Consumer Products and Packaging: Use of plastic products leads to ingestion and/ or inhalation of large amounts of both microplastic particles and hundreds of toxic substances with carcinogenic, developmental, or endocrine disrupting impacts.

Toxic Releases from Plastic Waste Management: All plastic waste management technologies (including incineration, co-incineration, gasification, and pyrolysis) result in the release of toxic metals such as lead and mercury, organic substances (dioxins and furans), acid gases, and other toxic substances to the air, water, and soils. All such technologies lead to direct and indirect exposure to toxic substances for workers and nearby communities, including through inhalation of contaminated air, direct contact with contaminated soil or water, and ingestion of foods that were grown in an environment polluted with these substances. Toxins from emissions, fly ash, and slag in a burn pile can travel long distances and

deposit in soil and water, eventually entering human bodies after being accumulated in the tissues of plants and animals.

Fragmenting and Microplastics: Microplastics entering the human body via direct exposures through contact, ingestion, or inhalation can lead to an array of health impacts, including inflammation, genotoxicity, oxidative stress, apoptosis, and necrosis, which are linked to an array of negative health outcomes including cancer, cardiovascular diseases, inflammatory bowel disease, diabetes, rheumatoid arthritis, chronic inflammation, autoimmune conditions, neurodegenerative diseases, and stroke.

Cascading Exposure as Plastic Degrades: Most plastic additives are not bound to the polymer matrix and easily leach into the surrounding environment, including air, water, food, or body tissues. As plastic particles continue to degrade, new surface areas are exposed, allowing continued leaching of additives from the core to the surface of the particle in the environment and the human body.

Ongoing Environmental Exposures: Once plastic reaches the environment in the form of macro- or microplastics, it contaminates and accumulates in food chains through agricultural soils, terrestrial and aquatic food chains, and the water supply. This environmental plastic can leach toxic additives or concentrate toxins already in the environment, making them bioavailable again for direct or indirect human exposure.

Extreme lack of transparency of the chemicals in most plastic and its production processes prevents a full assessment of its impacts. Broad protection of confidential business information and inadequate disclosure requirements play a key role in creating these uncertainties, and they reduce the ability of regulators to develop adequate safeguards; consumers to make informed choices; and frontline and fenceline communities to limit exposure to plastic related health hazards.

Intersecting Exposures and Synergistic Effects Remain Poorly Understood: Risk assessment processes fail to evaluate the health effects of cumulative exposure to the mixtures of thousands of chemicals used in consumer goods like food packaging and found in the environment.

Plastic in the Food Chain: Despite their pervasive presence and potentially significant impacts across an array of pathways, research into the impacts and movement of plastic and microplastics through terrestrial environments, marine ecosystems, and food chains is limited. The potential transfer of microplastics and associated toxic chemicals to crops and animals demands urgent and sustained investigation.

Plastic in People: Microfibers and other plastic microparticles are increasingly being documented in human tissues. Until these impacts are better understood, we should adopt a precautionary approach to limit the production and use of these persistent contaminants. Reducing toxic exposure to plastic will require a variety of solutions and options because plastic has a complex lifecycle with a diverse universe of actors.

Putting Human Rights and Human Health at the Center of Solutions: At every stage of the plastic lifecycle and across those stages, solutions should be guided by the respect for the human rights to health and to a healthy environment. Despite remaining uncertainties, existing information about the severe health impacts of the plastic lifecycle justifies the application of a strong precautionary approach to the lifecycle of plastic and the overall reduction of plastic production and uses.

Recognizing the Suite of Interacting Exposures Health impact assessments that focus solely on the plastic components of products while ignoring the thousands of additives and their behavior at every stage of the plastic lifecycle are necessarily incomplete.

Making the Invisible Visible: Addressing plastic pollution will require adapting and adopting legal frameworks to ensure access to information regarding the petrochemical substances in products and processes, as well as increased independent research to fill existing and future knowledge gaps.

Building Solutions on Transparency, Participation, and the Right to Remedy: In identifying, designing, and implementing possible solutions to the plastic pollution crisis, transparency is key to success. Transparency is required to identify the nature and breadth of exposure to toxic material, as well to assess possible health and environmental impacts of technologies touted as "solutions" to the plastic pollution problem, such as incineration and plastic-to-fuel technologies. Solutions must integrate not only access to information, but also the right to meaningful participation in decision-making about plastic-related risks, and access to justice when harms arise."

And this report doesn't even address the equally catastrophic consequences of plastics production and increased fracking in our region on climate. Your decision on this bill will have real consequences for the future of our planet.

Do your duty to the people of Ohio and vote no on this dangerous bill, which violates Ohio Home rule principles as well as your ethical duty as elected representatives responsible for managing our government for the well-being of Ohio residents.

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