

Testimony of

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Pennsylvania House Environmental and Natural Resources Protection Committee

Re: PA House Bill 109 - Issuance of permits in environmental justice areas

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I submit this written testimony in support of PA House Bill 109. This bill establishes a process to ensure the Pennsylvania Department of Environmental Protection (DEP) has the information and context needed to consider cumulative impacts when making permitting decisions in environmental justice areas.

I submit this testimony as a private citizen. For purposes of identification, I am an Assistant Scientist in the Department of Environmental Health and Engineering at the Johns Hopkins Bloomberg School of Public Health. I have a PhD in exposure science and environmental epidemiology with training and extensive experience in exposure assessment, chemical risk assessment, epidemiology, toxicology, and community-engaged participatory research. The opinions expressed in this testimony are my own and do not necessarily reflect the views of my employer, Johns Hopkins University.

I will focus my testimony on the importance of considering cumulative impacts in permitting decisions and share the findings of a study I led called the Assessing Strengths, Stressors and Environmental justice in SoutheaStern (ASSESS) Pennsylvania Communities Study.

We are all exposed to a variety of toxic chemicals and hazards in the environment that can negatively impact our health and well-being. Some communities across the Commonwealth are disproportionately exposed to sources of environmental pollution. This means people residing in these communities are exposed to more types of pollution (e.g., particulate matter and lead and ozone) and/or greater amounts of the same type of pollution. These realities should be a factor in permitting decisions. Cumulative impacts assessments recognize that past and current environmental, social, and health burdens should be included in decisions impacting communities' futures.

We know that exposure to toxic chemicals negatively impacts human health. A robust body of scientific evidence also demonstrates that exposure to non-chemical stressors (e.g., low income,

poor nutrition, stress) creates social vulnerabilities in communities that may impede people's access to basic preventive services or life-saving care and impact people's lives. Exposure to non-chemical stressors can also create physiological vulnerabilities that may impede a person's ability to heal after exposure to toxic chemicals. These scientific facts are another reason why we should consider cumulative impacts. Cumulative impact assessments acknowledge this potential for both chemical and non-chemical stressors to work together to make people sick, often to a greater extent than if each individual stressor acted alone. Cumulative impacts assessments are an important foundation for ensuring the health and resilience of all communities across the Commonwealth.

Building on this scientific foundation, the ASSESS study was designed and implemented as a community-academic partnership and aimed to describe the cumulative burdens of chemical (e.g., exposure to air pollutants) and non-chemical stressors (e.g., financial hardship, nutritional status, psychosocial stress) borne by residents of southern Delaware County. The ASSESS study was not like traditional academic studies. We used a community-based participatory research approach, meaning that residents and community advocates in southern Delaware County were equal partners alongside public health researchers at Johns Hopkins University in the design, conduct, interpretation, and communication of study findings. This approach allowed us to implement a community health survey and focus group discussions that were responsive to residents' concerns.

Here's what we found:

- Communities in southern Delaware County are clearly overburdened. Residents routinely experience physical and mental health symptoms from chemical exposures that are exacerbated by other non-chemical stressors they face.
- Ninety-five percent of the 147 residents who completed the ASSESS Environmental Health Survey reported smelling odors in their communities, with approximately three-quarters of participants reporting negative physical health effects from odors and air pollution.
- We found that seventy-nine percent of participants reported experiencing at least two personal non-chemical burdens (e.g., poor housing quality, food insecurity, racism, financial insecurity, lack of transportation, or victim of violent crime).
- Furthermore, we found that among those who experienced at least two non-chemical burdens, at least eighty percent of them had at least one medical diagnosis (e.g., asthma, depression, etc.). Overall, residents in southern Delaware County reported significant non-chemical burdens, and those with more burdens reported poorer health.

- Participants clearly connected the pollution, odors and noise in their environment to their health. A major strength of our study was the fact that we talked directly to community residents to dig more deeply into their real-world experiences. This helped us understand how toxic chemicals and other life circumstances work together to make people sick.

For example, we heard directly from one focus group participant *how* noise, a non-chemical stressor, discouraged them from enjoying the green spaces in their community and worsened their mental health:

*“I like to open the windows and the shades and look out over the trees, and it’s a cute neighborhood in which I live in. [...] But once the train starts rolling by... I can’t hear anything but that train, making that loud, loud noise constantly, and so then I shut the window and I close myself off to that, and mentally for me that that’s not good, because I am so confined to my home environment at this point that any kind of outside air or enjoyment of birds and nature ... it’s cut off immediately.”*

- We also observed that symptoms consistent with medical conditions such as asthma and depression were more common than clinical diagnoses, suggesting that there are true barriers to residents receiving a formal diagnosis and treatment from a clinician. This finding suggests traditional surveillance metrics that rely on medical diagnoses alone may underestimate existing health burdens in these communities. These discrepancies between symptoms and diagnoses illustrate that community concerns act as early signals of burdens and highlight why direct and meaningful community engagement and participation are essential to knowledge gathering about cumulative impacts.

Here’s the bottom line. We worked with community residents to understand what living in an overburdened community feels like and how it impacts their health and well-being. It does. It affects their health and their lives in real ways. How are you supposed to live a normal life when you know living where you live could be making you sick? This bill is necessary for these communities.

I urge your support of this bill.