



THE MARYLAND HOUSE OF DELEGATES  
ANNAPOLIS, MARYLAND 21401

**Testimony in Support of HB77**

**Environment – Application of Coal Tar Pavement Products – Prohibitions (Safer Sealant Act of 2021)**

Testimony by Delegate Vaughn Stewart

January 20, 2021 • Environment and Transportation Committee

**What the Bill Does:**

The Safer Sealant Act of 2021 (HB77) would prohibit the sale and use of pavement sealants that contain high levels of harmful toxins called polycyclic aromatic hydrocarbons (PAHs). Pavement sealants are black, shiny substances sprayed or painted on top of asphalt pavement to protect the underlying asphalt.

I am offering several sponsor amendments that modify last year's version of this legislation. I collaborated with a Maryland-based manufacturer of sealants to craft these amendments. After opposing the bill last year, he is now supportive of the bill with these amendments. Namely, with the amendments, the bill: 1) is now limited to pavements and driveways; 2) includes a tiered system (gold, silver, and bronze) to induce a stronger industry response; 3) a state-level enforcement regime; and 4) now allows the sale of the product out of state.

**Why the Bill Is Important:**

The problem with many sealants is that they contain high levels of PAHs. PAHs pose significant human health and environmental risks. There are multiple types of PAHs, but many of them are toxic and carcinogenic to aquatic life. The Environmental Protection Agency classifies seven PAHs as probable human carcinogens. In 2016, the American Medical Association advocated for a nationwide ban on the use of sealants containing PAHs.

Study after study has confirmed that PAHs cause cancer.<sup>1</sup> One prominent cancer researcher once described PAH-heavy sealants as “big buckets of carcinogen.” PAHs get into house dust due to their high levels in pavement sealants. In fact, living adjacent to pavement with a sealant high in PAHs increases lifetime cancer risk up to 38 times--and much of this increased risk occurs during childhood.<sup>2</sup> People are exposed to PAH-laden house dust through either direct ingestion (hand-to-mouth contact) or indirect ingestion (mouth contact with inanimate objects like toys, a serious concern for young children). The United States Department of the Interior has identified coal tar-based sealants as an environmental justice issue because of their disproportionate health effects on communities of color.<sup>3</sup>

Sealants also have significant, well-documented negative effects on the environment. The use of the sealants is associated with slower rates of growth in salamanders, impaired development in frogs, liver damage in fish, and a decrease in the population of crabs, clams, and oysters.<sup>4</sup> Indeed, a recent Morgan State study found that PAHs entering an aquatic ecosystem from runoff from road surfaces inhibit oyster reproduction.

The opposition will attempt to use specious arguments to undermine the scientific consensus around the harmful effects of PAHs. For example, you might hear that coal tar is found in some

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<sup>1</sup> International Agency for Research on Cancer, 1980, Agency for Toxic Substances and Disease Registry. Toxicological profile for polycyclic aromatic hydrocarbons. Atlanta, GA, U.S. Department of Health and Human Services, Public Health Service, 1995.

<sup>2</sup> E. Spencer Williams, Barbara Mahler, & Peter Van Metre, Cancer risk from incidental ingestion exposures to PAHs associated with coal-tar-sealed pavement, 47(2) ENV. SCI. & TECH. 1101 (2012), <http://pubs.acs.org/doi/abs/10.1021/es303371t>.

<sup>3</sup> U.S. Dept. of Interior, Environmental Justice Strategic Plan, 2012-2017, <http://www.doi.gov/pmb/oepe/upload/Final-DOI-EJ-SP-March-27-2012.pdf>.

<sup>4</sup> Thomas Bommarito, Donald Spalding, & Richard Halbrook, Toxicity of coal-tar pavement sealants and ultraviolet radiation to *Ambystoma Maculatum*, 19(6) ECOTOXICOLOGY 1147 (2010), <http://link.springer.com/article/10.1007%2Fs10646-010-0498-8>; P. J. Breyer, J. N. Elliott, & E. J. Willingham, The effects of coal tar based pavement sealer on amphibian development and metamorphosis, 15(3) ECOTOXICOLOGY 241 (2006), <http://www.ncbi.nlm.nih.gov/pubmed/16557355>; Thomas Bommarito, Donald Sparling, & Richard Halbrook, Toxicity of coal-tar and asphalt sealants to eastern newts, *Notophthalmus viridescens*, 81(2) CHEMOSPHERE 187 (2010), <http://www.sciencedirect.com/science/article/pii/S0045653510007320>; Mark Myersa, Lyndal Johnson & Tracy Collier, Establishing the Causal Relationship between Polycyclic Aromatic Hydrocarbon (PAH) Exposure and Hepatic Neoplasms and Neoplasia-Related Liver Lesions in English Sole (*Pleuronectes vetulus*), 9(1) HUMAN & ECOLOGICAL RISK ASSESSMENT 67 (2003), [http://www.tandfonline.com/doi/abs/10.1080/713609853#.VS\\_X9Fy\\_vD0](http://www.tandfonline.com/doi/abs/10.1080/713609853#.VS_X9Fy_vD0); M. S. Shailaja, C. D'Silva, Evaluation of impact of PAH on a tropical fish, *Oreochromis mossambicus* using multiple biomarkers, <http://www.ncbi.nlm.nih.gov/pubmed/14505704>; Pamela Bryer, Mateo Scoggins, Nancy McClintock, Coal-tar based pavement sealant toxicity to freshwater macroinvertebrates, 156(5) ENV. POLLUTION 1932 (2010), <http://www.sciencedirect.com/science/article/pii/S0269749109005375>; M. Scoggins, N. L. McClintock, L. Gosselink, & P. Bryer, Occurrence of polycyclic aromatic hydrocarbons below coal-tar-sealed parking lots and effects on stream benthic macroinvertebrate communities, 26(4) J. N. AMERICAN BENTHOLOGICAL SOCIETY 694 (2007), <http://www.bioone.org/doi/abs/10.1899/06-109.1>.

cosmetics and personal care products, such as shampoos, soaps, hair dyes, and lotions. While that's true, it's important to remember that the PAH levels in these products are insignificant.

The opponents might also argue that there are no deleterious health effects for sealant workers. However, their argument is undermined by legal settlements paid by the industry to workers who later developed lung cancer. Moreover, the United Steelworkers union encourages retired workers who worked on PAH-heavy sealants to get regular cancer screenings.

Finally, the opponents are likely to posit misleading economic arguments against banning PAH-heavy sealants. First, it's important to note that the amended version of the bill does not penalize Maryland-based manufacturers, so it will not cost our state a single job. Second, major retailers have already stopped selling the product, so consumers are already encouraged to purchase asphalt-based alternatives. For example, Ace Hardware, Lowe's, and The Home Depot have already ceased nationwide distribution of coal tar-based sealants. And third, the use of these sealants hurts industries that rely on healthy populations of fish, crabs, and oysters. Numerous studies have concluded that a cleaner Bay creates jobs because more fish, crabs, and oysters provide renewed work opportunities and hope for watermen, processors, packers, restaurant workers, people in tourism-dependent businesses, and many others.

### **Why the Committee Should Vote Favorably:**

The costs of using sealants with high levels of PAHs greatly outweigh the benefits. Washington, DC, Montgomery County, Prince George's County, Anne Arundel County, and Howard County have all imposed bans of these sealants. These Maryland counties represent nearly half of all state residents, but we must act to protect the remaining half of residents.

In the name of both human health and the Chesapeake Bay, I urge a favorable report on HB77.