

Testimony on 2019 Senate Bill 716

Senator Robert Cowles

Senate Committee on Natural Resources and Energy – January 30, 2020

Thank you, Committee Members, for allowing me to testify on 2019 Senate Bill 716. This bill would prohibit the use of coal tar-based sealants and other high PAH level sealants on the first day of the next year, and ban the use of these products beginning on July 1, 2021.

Polycyclic Aromatic Hydrocarbons (PAH) are a group compounds which are largely naturally occurring during the incomplete burning of coal, oil, gas, wood, garbage, or other organic substances, such as tobacco and charbroiled meat. One of the main sources of PAH pollution is coal tar-based sealants which are applied by homeowners and contractors to residential and commercial driveways and parking lots to increase the longevity of their pavement.

Coal tar-based sealants are one of the primary sources of PAH pollution with levels ranging from 70,000 to 100,000 parts-per-million (ppm). Other sources of PAH pollution include fresh asphalt (1.5 ppm), smoke from wood fires (2 to 114 ppm), engine exhaust (102 to 370 ppm), and used motor oil (440 ppm). For reference, the Environmental Protection Agency (EPA) has suggested that taking 0.3 milligrams or less per 2.2 pounds of body weight of certain PAHs into your body each day is not likely to cause harmful health effects. Because of coal tar-based sealants and less so from other sources, the average total exposure each day among the U.S. population is over 3 mg per day per 2.2 pounds of body weight.

PAHs accumulate in soils, household dust, and carpets when coal tar-based sealant particles are blown or tracked into buildings. The particles come from sealants being worn down over time by weather, tire abrasion, foot traffic, and improper application. Sealant particles are also washed into waterbodies by precipitation and runoff events. A study recently completed in Milwaukee found that 77% of PAH pollution in local streambed sediment came from coal tar-based sealants.

PAH overexposure has been linked to cancer, reproductive problems, and organ damage. Multiple studies by Baylor University and the U.S. Geological Survey have shown that children living in homes near parking lots coated with coal tar-based sealants have a 14-times higher risk of cancer versus children living next to unsealed pavement. Additionally, lifetime exposure leads to a 38-times increased rate of cancer. In a study of ground-floor apartments in Austin, Texas, PAH levels in house dust in apartments near parking lots sealed with a coal tar-based product were 25-times higher than in house dust near parking lots sealed with other surface types.

PAHs also have numerous impacts to aquatic wildlife. These compounds have been shown to kill small organisms living on the bottoms of lakes, rivers, and streams, and cause tumors in fish and other large

aquatic mammals in those waterbodies. With this testimony, I've included a short flier from the U.S. Geological Survey with more information on the harmful impacts of coal-tar based sealant products.

Asphalt-based pavement sealants have 1,000-times lower PAH levels than their coal tar-based counterpart and are both cost-competitive and readily available. The longevity of asphalt-based sealants is also comparable to tar-based sealants.

Coal tar-based sealant restrictions have already been enacted in two counties and at least 20 Wisconsin communities, including my hometown of Green Bay and other Northeast Wisconsin communities including Sturgeon Bay and Manitowoc. Our neighboring states have also seen the value in placing similar restrictions on coal tar-based sealants, including the State of Minnesota and several communities in Illinois and Michigan. Minnesota's ban came at least in-part after the costs to taxpayers of the cleanup of PAHs in stormwater pond sediment and other waterbodies in the Twin Cities area was estimated to be in the hundreds of millions of dollars. Major retailers including Home Depot, Lowe's, and Ace have stopped selling coal tar-based sealants, and, according to a 2013 USA Today article, at least 24 contractors in Wisconsin and many more elsewhere have pledged to switch to asphalt-based sealants.

We've already made efforts in Wisconsin to reduce PAH exposure from second-hand smoke and through drinking water and air quality standards. Creating a statewide ban on coal tar-based sealants in Wisconsin will further these efforts to help improve the health of our children and residents and protect our waterways. 2019 Senate Bill 716 prohibits the sale of coal tar-based sealant products and high PAH level sealant products beginning on January 1st, 2021, and prohibits the use of such products beginning on July 1st, 2021. Violators would be subject to a fine of \$10 to \$5,000, similar to other environmental provisions in Wis. Stats. Ch. 299.

This legislation also stipulates that the DNR may grant an exemption upon written request from someone looking to research the effects of coal tar-based sealant products and other high PAH sealant products on the environment or if the use of these products is required for research or development of an alternative technology.

Additionally, I wanted to note that I am aware that there is an amendment in the Assembly which has not yet been matched in the Senate. I've had discussions with the DNR about the change, and plan on addressing this language soon.

Leading researchers from government agencies and educational institutions along with top health professionals from the American Medical Association all agree that the risk of PAH exposure from coal-tar sealants is too high of a price to pay when common-sense alternatives are available.

The long-term costs to the state from overexposure to PAH in health care expenses, lost wages leading to lost productivity and tax revenue, and environmental remediation expenditures are truly incalculable. Some of these costs can be avoided by following the lead of more than 20 Wisconsin communities that have moved to restrict the use of coal tar-based sealants by passing Senate Bill 716, and in the process, we can ensure a healthier future for Wisconsin's youth and cleaner waterways for recreation and aquatic wildlife.



JOEL KITCHENS

STATE REPRESENTATIVE • 1ST ASSEMBLY DISTRICT

Testimony for the Senate Committee on Natural Resources and Energy Senate Bill 716 Thursday, Jan. 30, 2020

Thank you Chairman Cowles and committee members for holding a public hearing and giving me the opportunity to testify on Senate Bill 716, legislation recommended by the Speaker's task Force on Water Quality that prohibits the sale and use of coal tar-based sealant products and sealants that contain high levels of polycyclic aromatic hydrocarbons.

Polycyclic aromatic hydrocarbons (PAHs) are persistent organic compounds that come from both natural and man-made sources. Tar-based pavement sealants are a primary source of toxic PAH pollution in Wisconsin.

Research has shown that PAHs are especially harmful to human health and animals that live in our lakes and rivers. Over time, coal tar sealants get worn down by exposure to sunlight and vehicle traffic and, as the sealant wears away, it releases PAHs into the environment.

A large portion of this pollution – which amounts to millions of pounds of PAHs every year – comes in the form of toxic dust and sediment and is carried into homes on shoes and children's toys; settles in the soil of nearby lawns, gardens and playgrounds; or washes off during rainstorms into storm sewers and waterways. The United States Geological Survey also says coal tar sealants release more airborne PAHs every year than the entire U.S. vehicle fleet.

According to the U.S. Environmental Protection Agency, at least six of the PAHs found in coal tar pavement sealants are probable human carcinogens and one PAH – benzo[a]pyrene – is a known carcinogen. The American Medical Association, which supports a ban on these products, says people exposed to coal tar sealants on a regular basis have a 38 times higher chance of developing cancer.

The EPA has also confirmed that coal tar pavement sealants release hundreds of times more PAHs into the environment than other kinds of sealants. Furthermore, the EPA has issued fact sheets urging consumers and businesses to be aware of the risks these sealants pose and to choose safer alternatives.

In the past 10 years, coal tar has also been cited as a hazardous substance by the Occupational Safety and Health Administration, American Conference of Governmental Industrial Hygienists, U.S. Department of Transportation, National Institute for Occupational Safety and Health, National Toxicology Program, International Agency for Research on Cancer and National Fire Protection Agency.

The EPA believes that choosing to ban coal tar sealants may be the most cost-effective way for communities to deal with the pollution impacts of these products.

Under SB 716, the sale of coal tar-based sealant products and sealants that contain high levels of PAHs would be banned starting Jan. 1, 2021. The bill would also ban the use of these materials beginning July 1, 2021.

I strongly believe a ban is feasible and needed because there are safer, cost-competitive alternatives to PAH tar-based sealants that are currently available. Modern asphalt-based pavement sealants contain up to 1,000 times lower PAH levels while also having similar life expectancies.

Jay Palaski, president of SealMaster of Wisconsin and Minnesota, the largest manufacturer of pavement sealants in the world, was hoping to be here today to support the bill, but unfortunately he is out of the state and cannot attend. But he did provide written testimony to my office, which I have included for you, and he says his price for asphalt-based products versus high-PAH sealers is essentially the same when following the manufacturer's specifications. "We see no difference in cost per square foot in our competitors pricing as we compete with our competitors in price quality and value on a daily basis," Palaski says in his written testimony.

In the past, coal tar sealants were more durable than asphalt based sealants and did not need to be reapplied as frequently. As Jay Palaski and others clearly state, that is no longer true. While some users cling to this outdated belief, modern asphalt based sealants last as long, if not longer, than coal tar based sealants.

So, as you can see, there is no acceptable reason why we should allow the continued use of PAH sealants. We should be following the lead of Minnesota, Washington and Washington, D.C., which have all enacted bans on these sealants. A variety of municipalities in Wisconsin – Wauwatosa, West Allis, Franklin, Milwaukee and Dane County – already have a ban in place and several others – including Green Bay – are considering similar restrictions.

I want to thank you for taking the time to listen to my testimony and I hope you consider supporting SB 716. I would also like to thank my co-authors and the members of the water quality task force for all the hard work they put in to this bill. I would be happy to answer any questions if you have them.

Coal-Tar-Based Pavement Sealcoat—Potential Concerns for Human Health and Aquatic Life

Sealcoat is the black, viscous liquid sprayed or painted on many asphalt parking lots, driveways, and playgrounds to protect and enhance the appearance of the underlying asphalt. Studies by the U.S. Geological Survey (USGS), academic institutions, and State and local agencies have identified coal-tar-based pavement sealcoat as a major source of polycyclic aromatic hydrocarbon (PAH) contamination in urban and suburban areas and a potential concern for human health and aquatic life.¹

Key Findings:

Human Health Concerns—As coal-tar-based sealcoat ages, it wears into small particles with high levels of PAHs that can be tracked into homes and incorporated into house dust. For people who live adjacent to coal-tar-sealcoated pavement, ingestion of PAH-contaminated house dust and soil results in an elevated potential cancer risk, particularly for young children. Exposure to PAHs, especially early in childhood, has been linked by health professionals to an increased risk of lung, skin, bladder, and respiratory cancers.²

Aquatic Life Concerns—Runoff from coal-tar-sealcoated pavement, even runoff collected more than 3 months after sealcoat application, is acutely toxic to fathead minnows and water fleas, two species commonly used to assess toxicity to aquatic life. Exposure to even highly diluted runoff from coal-tar-sealcoated pavement can cause DNA damage and impair DNA repair. These findings demonstrate that coal-tar-sealcoat runoff can remain a risk to aquatic life for months after application.

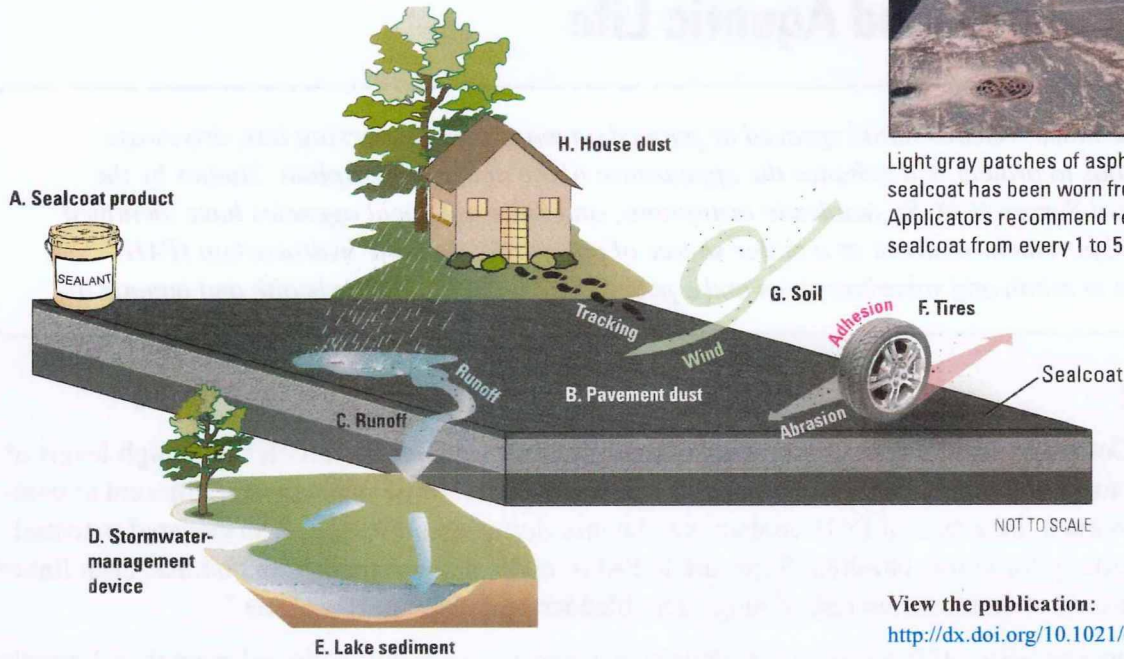
Coal-tar-sealcoat, which contains elevated levels of PAHs, is commonly applied to parking lots, driveways, and some recreational areas across the central and eastern parts of the United States. Friction from vehicle tires abrades sealcoat into small particles that can be tracked indoors or washed down storm drains and into streams, potentially harming human and aquatic life.



As Sealcoat Wears Off, Where Does It Go?



Light gray patches of asphalt show where sealcoat has been worn from the pavement. Applicators recommend reapplication of sealcoat from every 1 to 5 years.¹



View the publication:
<http://dx.doi.org/10.1021/es203699x>

Worn particles of coal-tar-based sealcoat containing high concentrations of PAHs and related chemicals are transported by rain, wind, tires, and even our feet from pavement to other environmental settings. Sealcoat product (A), after it dries, gradually abrades to a powder and becomes part of the dust on the pavement (B). Pavement dust is transported by rainfall runoff (C) to stormwater-management devices (D) or to receiving streams and lakes (E). Pavement dust also adheres to tires (F) that track it onto unsealed pavement, and wind and runoff transport the dust to nearby soils (G). Sealcoat particles tracked into residences can become incorporated into the house dust (H). Associated PAH concentrations for these settings, from studies by the USGS, other government agencies, and academic institutions, are given below.

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Setting	PAH concentration* (milligrams per kilogram)	
	Coal-tar-sealcoat settings	Non-coal-tar-sealcoat settings
(A) Sealcoat products	66,000	50
(B) Pavement dust	2,200	11
(C) Runoff, particles	3,500	54
Runoff, unfiltered water	62	4
(D) Stormwater-management-device sediment	646	2
(E) Lake sediment	33	0.4
(F) Particles adhered to tires	1,380	3
(G) Soil	105	2
(H) House dust	129	5

*Concentrations are means or medians. References and additional information are provided in Mahler and others (2012).¹

PAH Levels in Asphalt-Based and Coal-Tar-Based Sealcoat

Pavement sealcoat is a commercial product that is applied to many asphalt parking lots, driveways, and playgrounds in North America in an effort to protect and beautify the underlying asphalt. It rarely is used on public roads.

Most sealcoat products are either coal-tar or asphalt emulsion, although some alternative products now are available.³ Coal tar and coal-tar pitch have extremely high concentrations of PAHs as do coal-tar-based sealcoat products, which typically are 20–35 percent coal tar or coal-tar pitch. Asphalt and asphalt-based sealcoat products have much lower concentrations of PAHs.

For historical and economic reasons, use of asphalt-based sealcoat in the United States is more common west of the Continental Divide and use of coal-tar-based sealcoat is more common east of the Continental Divide, except in States, counties, and municipalities where use of coal-tar-based sealcoat is prohibited.³



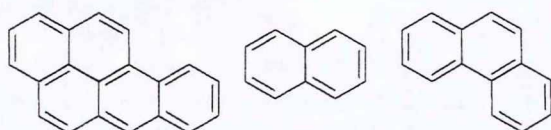
Asphalt-based sealcoat, primarily used west of the Continental Divide, typically contains about 50 mg/kg PAHs.⁴



Coal-tar-based sealcoat, primarily used east of the Continental Divide, typically contains 50,000 to 100,000 mg/kg PAHs.⁴

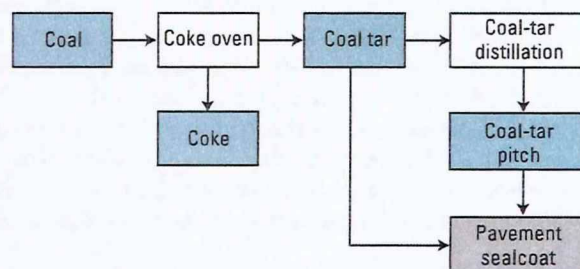
PAH levels in dust swept from sealed parking lots reflect the type of pavement sealcoat commonly used west and east of the Continental Divide.¹ Concentrations, in units of milligrams per kilogram (mg/kg), also referred to as "parts per million" (ppm), shown here are for the sum of the 16 PAHs listed by the U.S. Environmental Protection Agency as Priority Pollutants. Concentrations are for composite samples from multiple parking lots or a median of several individual samples.⁵

Polycyclic aromatic hydrocarbons (PAHs) are a group of chemicals created by heating or burning material that contains carbon. The many sources of PAHs to the urban environment span a wide range of PAH concentrations and include asphalt (2–9 mg/kg), tire particles (84 mg/kg), used motor oil (730 mg/kg), and coal-tar-based sealcoat (34,000–202,000 mg/kg).⁶ PAHs are an environmental concern because many cause cancer, mutations, birth defects, or death in fish, wildlife, and invertebrates.⁷ Exposure to sunlight greatly intensifies the adverse effects of several PAHs. The U.S. Environmental Protection Agency (EPA) has classified seven PAHs as probable human carcinogens (Class B2) and 16 PAHs as Priority Pollutants. Environmental and health effects depend on which PAHs are present and their concentrations.



PAHs are made up of various arrangements of benzene rings. PAHs commonly occur in the environment as mixtures, which typically include at least some of the PAHs that are classified as probable human carcinogens.

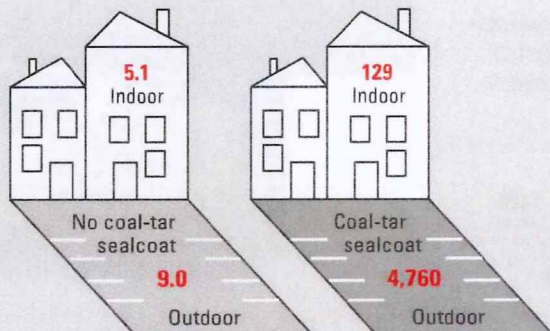
Coal tar is a byproduct of the coking, liquefaction, or gasification of coal and is a complex mixture composed primarily of aromatic hydrocarbons. Coal-tar pitch is the residue that remains after the distillation of coal tar; it is a complex mixture of high molecular weight aromatic hydrocarbons and black carbon solids. The primary use of coal-tar pitch is in electrode manufacturing for the aluminum industry.⁸ Coal-tar emulsion pavement sealants contain either crude coal tar (Chemical Abstracts Service [CAS] Registry Number 8007–45–2) or coal-tar pitch (CAS Registry Number 65996–93–2). Coal tar and coal-tar pitch are known human carcinogens.⁹



Potential Risks to Human Health

PAHs from coal-tar-based sealcoat contaminate house dust¹⁰

In a study of 23 ground-floor apartments in Austin, Texas, PAH levels in house dust in apartments with parking lots sealed with a coal-tar-based product were 25 times higher than in house dust in apartments with parking lots with other surface types (concrete, unsealed asphalt, and asphalt-based sealcoat). No relation was found between PAHs in house dust and other



PAH-contaminated dust on coal-tar-sealcoated pavement (right) is tracked indoors.¹⁰ Concentrations shown are median values for the sum of the 16 Priority Pollutant PAHs, in units of milligrams per kilogram, in house dust and parking lot dust.

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<http://pubs.acs.org/doi/pdf/10.1021/es902533r>

Living adjacent to coal-tar-sealed pavement increases cancer risk¹²

The USGS partnered with a human-health-risk analyst to estimate the excess lifetime cancer risk associated with the ingestion of house dust and soil for people living adjacent to parking lots with and without coal-tar-based sealcoat. Excess cancer risk is the extra risk of developing cancer caused by exposure to a toxic substance. The excess cancer risk for people living adjacent to coal-tar-sealcoated pavement (1.1 cancer incidences for every 10,000 individuals exposed) was 38 times higher, on average (central tendency), than for people living adjacent to unsealed pavement. The central tendency excess cancer risk estimated for people living adjacent to coal-tar-sealcoated pavement exceeds the threshold generally considered by the EPA as making remediation advisable.

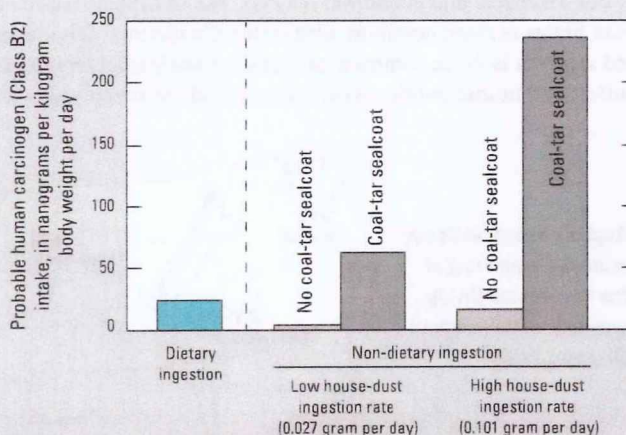
The assessment used measured concentrations of the B2 PAHs in house dust and soils adjacent to coal-tar-sealed pavement (adjusted for relative potency to the PAH benzo[*a*]pyrene), established house dust and soil ingestion rates, and the EPA-established slope factor to estimate the excess cancer risk. Much of the estimated excess risk comes from exposures to PAHs in early childhood (that is, 0–6 years of age). The study did not consider the excess cancer risk associated with exposure to the sealcoated pavement itself, which has PAH concentrations 10 or more times greater than in adjacent residence house dust or soils.^{5,10}

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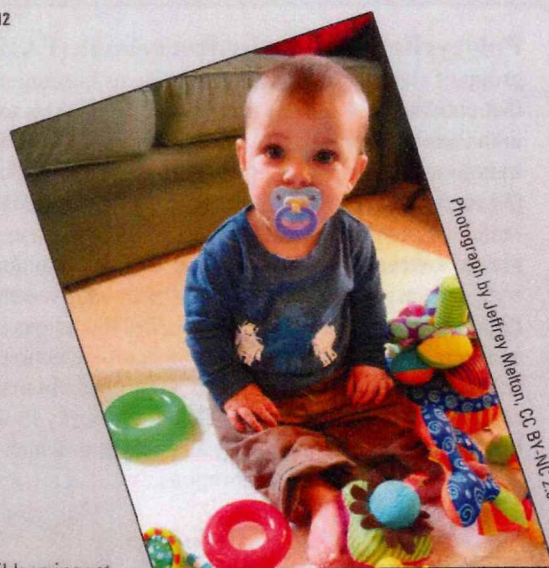
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possible indoor PAH sources such as tobacco smoking and fireplace use.

House dust is an important pathway for human exposure to many contaminants, including PAHs. This is particularly true for small children, who spend time on the floor and put their hands and objects into their mouths.



The preschooler living in a residence adjacent to coal-tar-sealed pavement who has relatively low hand-to-mouth activity consumes about 2.5 times more PAHs from house dust than from their diet.¹¹ For the more active preschooler, whose hand-to-mouth activity is higher, the PAH intake from house dust is nearly 10 times more than the PAH intake from their diet.



Children ingest house dust and soil when they put their hands or objects into their mouth. Much of the estimated excess cancer risk associated with the ingestion of PAH-contaminated soil and house dust is incurred during early childhood.

Potential Risks to Aquatic Life

Runoff from coal-tar-sealcoated pavement is acutely toxic to aquatic biota¹³

Exposure to runoff from coal-tar-sealed pavement collected as much as 42 days after sealcoat application resulted in 100 percent mortality to two commonly tested laboratory organisms: day-old fathead minnows (*Pimephales promelas*) and water fleas (*Ceriodaphnia dubia*). In contrast, minnows and water fleas exposed to runoff from unsealed pavement experienced no more than 10 percent mortality. When the minnows and water fleas were also exposed to simulated sunlight, which intensifies the toxicity of some PAHs, runoff collected 111 days (more than 3 months) after sealcoat application caused 100 percent mortality to both species, and caused 100 percent mortality to water fleas even when diluted to 10 percent of its original strength.

The USGS collected samples of runoff from 5 hours to 111 days following sealcoat application to pavement by a

professional applicator. Total PAH concentrations varied relatively little, as rapid decreases in concentrations of low molecular weight and nitrogen-substituted PAHs were offset by increases in high molecular weight PAHs.¹⁴ These results demonstrate that runoff from coal-tar-sealcoated pavement continues to contain elevated concentrations of PAHs and related compounds long after a 24-hour curing time.

A subsequent study by researchers at the National Oceanic and Atmospheric Administration (NOAA) and the U.S. Fish and Wildlife Service found that coal-tar-sealcoat runoff is acutely lethal to juvenile coho salmon (*Oncorhynchus kisutch*) and causes a wide spectrum of abnormalities to zebrafish (*Danio rerio*) embryos.¹⁵ They also reported that filtration of the runoff through a bioentention system substantially reduced toxicity.



Runoff from coal-tar-sealcoated pavement is acutely toxic to fathead minnows (*Pimephales promelas*; left) and water fleas (*Ceriodaphnia dubia*; right).

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<http://pubs.acs.org/doi/abs/10.1021/acs.est.5b00933>



Runoff from coal-tar-sealcoated pavement goes down storm drains to receiving water bodies. The runoff contains high concentrations of PAHs and related chemicals that can harm aquatic life.¹⁶

Runoff from coal-tar-sealcoated pavement damages DNA and impairs DNA repair¹⁷

Simultaneous exposure to runoff from coal-tar-sealed pavement and simulated sunlight damaged DNA in rainbow trout liver cells, even when the runoff was diluted to 1 percent of its initial concentration. The cells were from a cell line developed to assess the effects of PAHs on DNA. The test assessed two types of DNA damage: strand breaks and alkylated bases.

Although cells can repair some DNA damage, a second experiment demonstrated that cells exposed to the coal-tar-sealcoat runoff had an impaired capacity to perform at least one type of DNA repair. The combination of DNA damage and impaired repair capacity intensifies the potential for long-term damage to cell health. DNA damage has many possible consequences, including aging, cell death, and mutations. Mutations can affect the function of genes and can potentially lead to cancer.

Types of DNA damage caused by exposure to runoff from coal-tar-sealed pavement include breaks in the DNA strands.

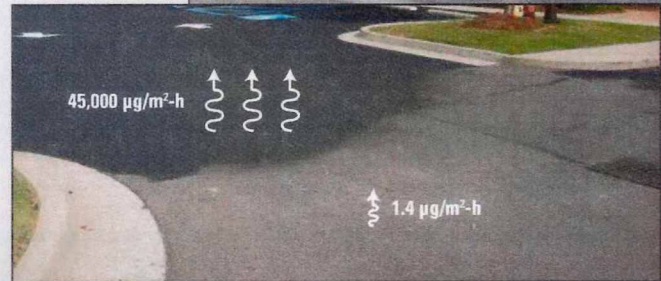


(Image from Genetic Science Learning Center, <http://learn.genetics.utah.edu>)

Air-Quality Concerns^{18, 19}

Although unseen, releases of PAHs to the atmosphere (volatilization) from freshly coal-tar-sealed pavement are tens of thousands of times higher than from unsealed pavement. Volatilization is a potential human-health concern because inhalation is an important pathway for human exposure to PAHs. Although volatilization decreases rapidly over the weeks following application, it nonetheless continues long after application—PAH releases to the atmosphere from parking lots sealed from 3 to 8 years prior to sampling were on average 60 times higher than PAH releases from unsealed pavement.

Nationwide, the combined PAH releases each year from newly applied coal-tar-based sealcoat are estimated to exceed annual vehicle emissions of PAHs.¹⁸ PAH releases shown here are in units of micrograms per meter squared per hour ($\mu\text{g}/\text{m}^2\text{-h}$).



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For more information

Access publications and learn more about PAHs and coal-tar-based pavement sealcoat at <http://tx.usgs.gov/sealcoat.html>.

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Mix-Tek

Pavement Solutions

Manufacturing Pitch Black®
Wisconsin & Minnesota

Mix-Tek Pavement Solutions is the premier maker of Pitch Black Sealcoat in Wisconsin and Minnesota. We are a locally owned, family business in the heart of central Wisconsin. We strive each and every year to make the blackest, longest lasting sealcoat on the market and to prove our company values: Reliable Performance, Consistency, and Environmental Consciousness.

- Family owned & operated in Necedah, WI
- Value high performance, reliability, consistency, and environmental consciousness

A reliable sealcoat manufacturer means many things. Chief among them is the product itself. We are constantly working to refine our processes to strengthen the Pitch Black formula, a formula that we have seen make the strongest and blackest sealcoat on the market. Being reliable also means being there for our clients, whether it's in picking up the phone to discuss the product or working with clients to deliver sealer for large jobs that require equipment such as our 2,000 gallon spot tanker truck to ensure they have the right tools to make a job easier, more efficient, and make more money.

- Reliable product
- Improved processes, same great Pitch Black
- Unparalleled customer service

Consistency also comes in the form of product and service. All of our efforts in refining processes and going in-depth on our sealer is to ensure that our product is Pitch Black through and through, and that our clients will know what they're getting in our product. We also are not a company that will make wild claims about performance or leave a client out to dry if they experience issues. All sealcoats have the possibility of failing, be it from the weather or pavement conditions, or the product itself. We're here always to work with our clients and find a win win for everyone in these situations. If the result was due to a last minute rainstorm or scorching hot pavement, we work to educate contractors to take steps mitigate these failures so that there are fewer issues and more money in everyone's pockets.

- Consistent product
- Consistent service
- Know what you're getting every time

Environmental consciousness manifests itself in a couple different ways. Sure, we recycle as best we can with the materials we use, but the biggest thing that sets us apart is that our sealer has 0.00% Polycyclic Aromatic Hydrocarbons (PAH's), the known carcinogen that has caused several parts of the country, including Dane & Sheboygan counties and all of Minnesota, to ban coal-tar sealers. Earlier this year, several municipalities in Minnesota filed lawsuits against the coal tar industry to the tune of millions of dollars due to the problems caused in lakes and rivers by these PAH's. Pitch Black is the only sealcoat on the market that has all the effectiveness and truly beautiful matte black finish customers desire, while also boasting an independently tested 0.00 PAH level in the sealer.

- Testing shows that Pitch Black has 0.00 PAH's
- PAH's (Polycyclic Aromatic Hydrocarbons) are known carcinogens
- Pitch Black is the only sealcoat to do all three of these things:
 - Last as long as the best sealcoats
 - Look blacker than the best sealcoats
 - Have 0.00 PAH's

We are working every day to represent these values to ourselves and to our clients, and hope that we're given a chance to prove them to you and to earn your business this year and beyond.

John Schneider, Owner



212 W 3rd St, Necedah, WI 54646



Milwaukee Metropolitan Sewage District & US Geological Survey Study

- They found that dust from **coal-tar-sealant contributed up to 94 percent of the PAHs** to the samples, with the remainder of PAHs coming from sources such as coal combustion and vehicle emissions.
- **78% of the sediment samples collected had PAH levels that could adversely affect aquatic organisms.**

Issues with Coal Tar or Other High PAH Sealants

- Young children are the most vulnerable to health effects from PAH contamination from high-PAH sealants. *Children living from birth to age 6 near parking lots treated with tar-based sealants are estimated to have a 14-times higher lifetime cancer risk.*
- **High concentrations of carcinogenic PAH's are directly linked to the deterioration of our environment and health**
- **Coal tar sealants have hundreds of times more PAH's than other common sources, such as engine exhaust or motor oil. Additionally, Coal Tar and other sealants are used to resurface millions of SF of asphalt every year.**
 - **Fresh Asphalt - 1.5 PPM (.00015%)**
 - **Engine Exhaust - 102-370 PPM (.01-.037%)**
 - **Motor Oil - 440 PPM (.044%)**
 - **Cracked Asphalt - 15,000 - 20,000 PPM (1.5-2%)**
 - **Coal Tar - 70,000 - 100,000 PPM (7-10%)**
- **Liability risk**
 - **Affects landlords, property owners, municipalities**
 - **Know that it's a liability risk, shouldn't put down these harmful sealants**
 - **1. Lowes and Home Depot Stopped Selling Coal Tar Sealers Based Upon a Business Model**
 - *In 2007 Chief Sustainability Officer for Lowes, Michael Chennard, said that they stopped selling coal tar sealants after learning about it from the Austin, TX PAH Restriction, based upon a business model. Here's the Lowes' equation:*

1. Identify products that have a high potential liability. He said their pockets were now deeper than many of their suppliers, so they have more to lose.

2. Find out if there are suitable alternatives in quality and price.

3. If both the quality and prices are similar, then remove the problematic product from the shelves

- *If it isn't good enough for Lowes and Home Depot, why is it good enough for your community or business? Who would continue to use a product that has a sound replacement and reduces liability?*



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Wisconsin & Minnesota

- **The True Costs of Coal Tar Sealers are Less than the Benefits**
 - *The State of Minnesota estimated cost for the 3.3 million people in the Minneapolis-St. Paul area to clean up after coal tar sealer contamination was over **\$1 billion!** **The cost of cleaning it up is many times greater than the value of the installed product in the first place!***
 - *Here's another example. The City of Austin was encouraged by the State of Texas to clean up a small drainage swale which had been contaminated by coal tar sealers from a single apartment complex near Barton Springs Pool. The cost, complete with workers in moon suits because of the high PAH concentrations, was about \$500,000! This was for a single parking lot drainage.*
 - **"costs more" - no, it's about \$0.01-\$0.06/gallon, which ultimately doesn't affect end user 2% - 5% increase in sealer cost**
- **Prospects are Good for Sealer Industry in the US Even Without Coal Tar**
 - *A market research company recently confirmed what one CEO of a sealer company said a few years ago: bans really won't hurt the sealcoat business.*
 - *In the projected period through 2024, the industry is expected to experience "moderate growth" but "rising bans on coal tar-based sealers, the improved performance of asphalt-based sealers, and competitive pricing are expected to result in the increased consumption of bitumen and asphalt sealers..."*
- *Paving experts no longer recommend Coal Tar Sealants.*

Known Benefits of Asphalt Emulsion Sealants

- Environmentally Safe
- Safe for Applicators and communities
- Long term asphalt preservation. Moisturizes and preserves asphalt.
- Cosmetically better looking, blacker, and more slip resistant due to higher solids content



Senate Committee on Natural Resources and Energy

2019 Senate Bill 716

Prohibiting the sale and use of coal tar-based sealants and high PAH sealant products January 30, 2020

Good morning Chairman Cowles and members of the Committee. My name is Kate Strom Hiorns, and I am the Recycling and Solid Waste Section Chief with the Wisconsin Department of Natural Resources. Thank you for the opportunity to testify, for informational purposes, on Senate Bill 716 (SB 716).

Coal tar-based sealant is a substance sprayed or painted on top of asphalt pavement—including parking lots, driveways, and some playgrounds—to protect the underlying asphalt. The primary danger associated with these sealants is that they contain polycyclic aromatic hydrocarbons (PAHs), substances that have harmful impacts to humans and the environment. PAHs move from a coal tar-based sealant into the environment by stormwater runoff, adhesion to tires, wind, and even foot traffic. A 2016 study by the U.S. Geological Survey indicated coal tar sealant as the primary source of PAHs in Milwaukee-area streambeds.

SB 716 prohibits the sale and use of coal tar-based sealant products and high PAH sealant products beginning January 1, 2021. The bill would extend statewide a ban that has been in place in Dane County for many years. In addition, the states of Minnesota and Washington ban coal tar-based sealants and so do many other local governments nationwide. There are widely used alternatives to coal tar-based sealants that are significantly lower in PAHs, including asphalt-based sealants. In addition, alternative pavement options, such as permeable asphalt, do not require sealants.

The bill also directs that, upon written request, the DNR may grant an exemption to the prohibitions to a person researching the environmental effects of a coal tar-based sealant product or high PAH sealant or to a person doing research to develop an alternative technology. The Minnesota statute prohibiting the sale and use of coal tar sealant in that state contains a similar exemption and the DNR would likely consult with our Minnesota counterparts on their experiences implementing the exemption. If rulemaking would be necessary to implement the exemptions, the bill authors may want to consider adding language in the bill to authorize the DNR to promulgate rules.

In closing, SB 716 may have a positive impact on municipalities statewide and on the DNR's efforts to reduce water quality degradation and the potential need for remediation.

On behalf of the DNR's Bureau of Waste and Materials Management, I would like to thank you for your time today. I would be happy to answer any questions you may have.



Carly Michiels, Government Relations Director

Paul Mathewson, Staff Scientist

Clean Wisconsin

Testimony – Senate Bill 716 prohibiting the sale or use of coal tar-based and PAH sealant products

Senate Committee on Natural Resources and Energy

Thank you for the opportunity to testify in support of Senate Bill (SB) 716 prohibiting the sale or use of toxic coal tar-based and high-PAH sealant products. We appreciate the authors, Senator Cowles and Representative Kitchens, prioritizing PAH pollution with this bipartisan bill.

Clean Wisconsin is a non-profit environmental advocacy organization focused on clean water, clean air, and clean energy issues. We were founded almost fifty years ago and have over 20,000 members and supporters around the state. We have been working on water pollution issues in Wisconsin since our founding, and while some of the particulars have changed Wisconsin remains a state with abundant water resources but also abundant challenges in restoring and protecting those waters. Clean Wisconsin employs scientists, policy experts, and legal staff to bring all the tools at our disposal to protect and improve both our air and water resources.

Pavement sealants are used to darken and seal asphalt driveways, parking lots, and playgrounds. Coal tar-based pavement sealants contain extremely high concentrations of toxic compounds known as polycyclic aromatic hydrocarbons (PAHs). Research in Wisconsin and across the country shows these pavement sealants are the primary source of PAH pollution in urban landscapes. The problem is they slowly but surely break down over time, and particles are either carried by wind or shoes into our buildings and yards or run off with stormwater into our waterways affecting water quality.

Dane County was the second place in the nation to prohibit the use of coal tar-based sealants back in 2007. For the last three years, Clean Wisconsin has worked with local communities along Wisconsin's Great Lakes coasts to raise awareness about the source and impacts of PAH pollution and encourage proactive action to protect residents and local waterways. In early 2017, we helped Milwaukee pass a local law that prohibited the sale and use of toxic pavement sealant products. Since then, another 21 local communities from Racine to Sturgeon Bay passed similar local protections. Thanks to these local actions roughly 1.7 million (almost 30%) of Wisconsin's residents are already protected from this source of PAH pollution. This bill will extend those protections to the rest of our residents and waterways.

This bill protects public health, the environment, and local taxpayers:

- The coal tar used in tar-based sealants is a known carcinogen due to its PAH content. Sealants break down over time, and children ingest it through contact in yards and playgrounds, or when we track particles from our driveways into our homes, where children who play on the floor can ingest them.

634 W. Main Street • #300
Madison, WI 53703
www.cleanwisconsin.org

Phone: 608-251-7020
info@cleanwisconsin.org



Studies have shown that children who grow up near parking lots treated with pavement sealants containing high levels of PAHs have a lifetime cancer risk that is 14 times higher than those living near unsealed parking lots or lots sealed with asphalt emulsion alternatives. In addition to increasing the risk for cancer, exposure to PAHs has been found to impair cognitive development and cause birth defects.

- PAHs are a common waterbody contaminant in Wisconsin. PAHs accumulate in the sediment, creating a toxic environment for aquatic life. Here in Wisconsin, a US Geological Survey study found the majority of waterway sediments sampled in the Milwaukee area contained PAH levels in excess of a toxic threshold, and that pavement sealants were the source of over 75% of the PAHs. Clean Wisconsin has also conducted sampling in rivers in Sheboygan, Manitowoc, Algoma, Green Bay, Stevens Point, Bayfield and Ashland, with testing conducted by a UW-Oshkosh lab, which showed levels of PAHs high enough to cause adverse impacts to fish and other wildlife. Research shows that runoff from surfaces sealed with high-PAH sealants harms or kills a wide variety of aquatic life, including insects, amphibians, and fish, and impairs the overall health of the waterbody.
- PAH pollution can be a significant burden to taxpayers. Municipalities are on the hook for cleaning up stormwater sediment ponds contaminated with PAH-laden sediment. In the Minneapolis metro area, the PAH cleanup from tar-based sealants is estimated to cost taxpayers hundreds of millions of dollars. If we do not stop using these products across Wisconsin, those costs in the future will only increase.

Today, widely available alternative products have comparable performance and are cost competitive. Big national and regional retailers that no longer sell high-PAH products include Ace Hardware, Home Depot, Lowes, Menards, and United Hardware. There are many applicators working in this industry in Wisconsin who have also decided not to use high-PAH sealants.

Taking action clearly improves water quality and reduces the threat to public health. In Austin, Texas, PAH levels in lakes decreased by over 50% in the decade following the city's ban on coal tar-based sealants. We have many complex water quality problems in Wisconsin that have and will continue to cost significant resources to address. On the contrary, preventing coal tar-based sealants from further polluting our waterways and impacting public health is straightforward. It implements what well over 20 communities in Wisconsin have already done to protect their residents and is the direction industry has been moving.

Clean Wisconsin supports SB 716 and we thank the authors for their leadership on prohibiting PAH contamination in Wisconsin. This is a win for public health, our natural resources, and local communities and taxpayers.

Thank you.

**Wisconsin Local Governmental Units with Adopted Ordinances
Regarding High-PAH Pavement Sealant Products:**

Bans on the sale and use of high-PAH pavement sealant products:

1. Dane County and all municipalities within the County (2008)
---- 2017 ----
2. Milwaukee
3. Glendale
4. Franklin
5. Brown Deer
6. Elm Grove
7. Shorewood
---- 2018 ----
8. Whitefish Bay
9. Port Washington
10. Greenfield
11. West Allis
12. Hales Corners
13. Wauwatosa
14. Bayside
15. Greendale
---- 2019 ----
16. Sheboygan
17. St. Francis
18. Manitowoc
19. Racine
20. Oak Creek
21. Sturgeon Bay
22. Plymouth
---- 2020 ----
23. Green Bay

Policies restricting the use of high-PAH sealants on County-owned projects and properties:

1. Milwaukee County (2019)
2. Kewaunee County (2019)

January 28, 2020

To Whom It May Concern,

I am requesting to submit testimony on SB 716 relating to: prohibiting the sale and use of coal tar-based sealants and high PAH sealant products because I cannot attend the public hearing in person

My name is Patrick DeJardin, I run a family business Jay's Asphalt Maintenance with my father, Jay DeJardin. I write this testimony to voice my opinion to be in favor of a coal tar/high PAH sealant ban. I have a few personal views and experiences to share regarding coal tar sealants.

About 13 years ago, we had stopped using coal tar. Coal tar is a name of an asphalt sealant for driveways/parking lots and at the time was the only decent product available to companies. Coal tar is harmful to the applicators and the environment. Caught off guard an applicator can suffer a multitude of direct chemical burns to skin similar to harsh sunburn, irritated eyes, and for some even irritated airways. I would know, as I have pictures of my arm enveloped in chemical burns just from cleaning out a tank that was unused for 7 years. That's right, even after 7 years of sitting idle coal tar can still cause damage. We stopped using coal tar for this reason, and at first we had many struggles using the substitutes on the market not only for the costs at that time but also for the inferiority other products had. However, we stuck with it and now 13 years later the product substitutes to replace coal tar are substantially more affordable, durable, accessible, and friendly to the applicators/customers. Like lead paint and asbestos, coal tar was once the best product on the market for its respective field, but thanks to science & ingenuity, we have a replacement for coal tar called asphalt emulsion products. And also thanks to science, we are more aware of the effects coal tar has on people (highly carcinogenic) & our ecosystems (high cost of cleanup, damage to waterways, and death of numerous small organisms).

Thank you for your time and consideration in such an important matter, since I cannot personally be there to talk and answer questions this time I will provide a FAQ sheet below in hopes that it can help.

Patrick DeJardin

Jay's Asphalt Maintenance

E783 Town Hall Rd

Luxemburg, WI 54217

Cell: 920-621-8473

FREQUENTLY ASKED QUESTIONS – REGARDING COAL TAR SEALANTS

- If coal tar is as terrible as presented, why do people still use it?
 - This is always the big one. Coal tar has been around the longest, and has a familiarity to it in name and usage that makes companies go to it to avoid change. Also, coal tar is still roughly 10% cheaper, and in a cut throat world of bid wars, being a few cents cheaper keeps this product in use. Large company owners who don't work on the front lines send workers to use this stuff not caring about employee health as long as they can save a few dollars a year.
- What products are out there to replace coal tar, and how are they in comparison?
 - The best substitute on the market is asphalt emulsion (AE) sealers. Within the past 10 years, great strides have been made on this product line and now it's an excellent, superior product to coal tar. Coal tar is a stiff shell that covers pavement acting like a shield, however by doing so it cuts off breathability of the asphalt and oxidizes the pavement below, harming the longevity of asphalt. AE however, uses the same minerals and oils found in asphalt pavement and acts as a surface rejuvenator and protectant, letting the pavement breath all the while protecting the asphalt below from wear, sun, and the elements. Also, both products boast a similar longevity, if applied correctly, of 3-5 years between treatments. So in summary, AE outshines coal tar in terms of asphalt health and longevity at the cost of being a few pennies more per gallon.
- How easily accessible are the substitutes for coal tar for applicators and homeowners?
 - Hardware stores like Fleet Farm, Menards, and Home Depot already stock buckets of asphalt sealant without coal tar. In fact, they only stock coal tar free options. So by banning coal tar, you won't be interfering with do-it-yourselfers and from the contracting perspective, most if not all manufacturers we currently buy from sell a multitude of options of coal tar or asphalt emulsion. It's as simple as calling up the salesman and asking for a new product on the next load.
- How will banning coal tar/high PAH sealants affect companies using it?
 - Companies that would have to make a change from coal tar to asphalt emulsion would just have to adjust a few very simple things with their equipment. Such as: using less water when mixing the product, using a bigger filter, and turning up air pressure on spray systems. These adjustments are very cheap and often a manufacturer would provide the filter free of charge as well as offering product knowledge so the applicators are ready for anything.

FAQ CONTINUED

- What kind of products do most of the soliciting companies use?
 - Coal tar. Now, banning coal tar will really help overall commerce and business reputation. The companies you may have heard about this past summer on the news and radio that literally knock on doors and distribute fliers ripping off unsuspecting homeowners sometimes thousands of dollars work, they all use coal tar. The reason being, when out for quick money the cheapest product (even the couple pennies less a gallon it is) is the choice. Also, coal tar can be heavily watered down, sometimes up to 40-50%, and still look black long enough for a check to clear. By watering it down this much, “fly-by-night” companies can make a driveway look black at minimal cost get paid and by the time the customer realizes what they paid for, it’s too late most likely the product won’t last a year. By doing this, home owners can develop mistrust for the business, and the asphalt maintenance profession has gotten a few black marks over the past few years. Most of these scammers are from out of state/out of the area and do not pay taxes, registrations, or DOT compliance so it takes out of Wisconsin’s pocket and only hurts us professionals that do comply. By banning coal tar, scammers will become less and less and will give us professionals more business and the industry as a whole will improve because of it.
- How come if coal tar has been around as long as it has, why have issues just now came up? Why haven’t we heard of this as much?
 - Scientific development and USGS research over the past 10 years or so have made leaps and bounds forward and now with better testing, coal tar has been found out to be more trouble than its worth. Pre-2010, it was “okay” to use in the eyes of the world for the most part. Think of a “if it isn’t broke, don’t fix it” mentality. Well now it’s considered “broke” and we are trying to get to the fixing part. With help of organizations like Clean WI and local cities holding educational seminars of sorts, the word is getting around and most places have been in full support of bans after learning what is now known about coal tar and its substitutes.
- Has coal tar been banned anywhere else besides Wisconsin?
 - Yes! In fact, Minnesota has had a statewide ban in effect for a few years now and in summer 2019 has begun a few lawsuits against coal tar manufacturers for environmental cleanup costs. Wisconsin itself is banned in many cities/counties, similar to Michigan, Texas, New York, Illinois, North & South Carolina, Washington, District of Columbia, Maryland, Kansas, California, Massachusetts, Missouri, Connecticut, and lastly Maine.



TO: Senate Committee on Natural Resources & Energy
FROM: Heather Paradis, MD, Medical Director, Community Services, Children's Wisconsin
DATE: Thursday, January 30, 2020
RE: Support for SB 716 to prohibit the sale and use of coal tar-based sealants and high PAH sealant products

Dear Chairman Cowles & Members of the Senate Committee on Natural Resources & Energy:

On behalf of Children's Wisconsin (Children's), I write you today in support of SB 716 to prohibit the sale and use of coal tar-based sealants and high PAH sealant products. PAHs create a significant concern for children's health and well-being. We believe the bipartisan proposal introduced as part of the Speaker's Task Force on Water Quality represents an effective way to control PAH and tar-based sealant contamination.

As you know, Children's is the state's only independent health care system dedicated solely to the health and well-being of children. We serve children and families in every county across the state, with inpatient hospitals in Milwaukee and the Fox Valley and more than 30 primary, specialty and urgent care clinics. We care for every part of a child's health, from critical care at one of our hospitals, to routine checkups in our primary care clinics. Children's focuses on all elements of pediatric well-being by providing dental care, school health nurses, foster care and adoption services, family resource centers, child health advocacy, health education, family preservation and support, mental health services, pediatric medical research and the statewide poison hotline.

Significant evidence from peer-reviewed studies shows that children living near parking lots which have been treated with pavement sealants containing high levels of PAHs have an excess lifetime cancer risk that is **14x higher** due to exposure to contaminated dust and soil than those living near unsealed parking lots. In addition to increasing the risk for cancer, exposure to PAHs has been found to impair cognitive development and cause birth defects.

When coal tar sealants break down and wear off over time, PAH-contaminated particles are dispersed throughout the outdoor environment by wind and storm water. Those particles are also tracked into homes on the soles of shoes. Due to this constant wearing away, pavement sealants need to be reapplied every few years. This creates a constant reintroduction of PAHs to the environment, where they accumulate in soil, waterbody sediment and house dust that can be incidentally ingested. Children, especially very young children who play on or near these driveways or parking lots, are particularly susceptible to the risk of PAH exposure from these sealants because they are more likely to ingest contaminated dust and soil.

At Children's, we care for the most vulnerable kids and it is our mission to keep them safe and healthy. The disturbing scientific and medical evidence tying PAHs to increased risks of birth defects, cognitive delays and cancer causes pediatric medical providers great concern.

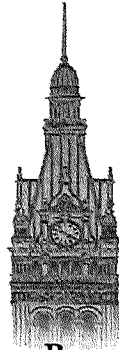
We are pleased the State of Wisconsin is considering this policy and encourage you to follow the steps of local municipalities in adopting a statewide ban on high-PAH sealants to protect kids, regardless of

where they live. This will serve as a tangible step to stop the use of a known and controllable substance that greatly increases the risk of cancer in children and damages children's health.

Sincerely,

A handwritten signature in cursive script, appearing to read "Heather Paradis".

Heather Paradis, MD
Medical Director, Community Services
Children's Wisconsin



Tom Barrett
Mayor, City of Milwaukee

January 29, 2020

Dear Honorable Members of the Wisconsin Legislature:

It has come to my attention that bi-partisan supported legislation has been introduced in the legislature which would ban coal based and other high polycyclic aromatic hydrocarbon (PAH) laden seal coat products on a statewide basis by 2021.

These pavement sealant products are a major source of contaminants to our rivers, lakes and storm water ponds in Milwaukee and all across Wisconsin. The pollutants derived from them are expensive to cleanup, toxic to fish and water quality, harmful to human health, and unnecessary because cost-effective alternative sealant products that are safer and cleaner already exist.

A recent study by the US Geological Survey (USGS) revealed that coal tar sealants are the primary source of toxic chemicals found in sediment along the Milwaukee River Basin. The USGS also has determined that PAH's posed a high risk to aquatic animals in streams and lake areas that receive storm water runoff discharges. Additionally, concerns over the adverse effects on human health, including a 39-fold increase in the risk of cancer for individuals with a lifelong exposure to coal-tar sealed pavements and 14-fold increase in cancer for youths with high exposure, has led the American Medical Association to call for taking legislative action against coal tar and high PAH sealants. These facts should be alarming to us all.

In early 2017, the City of Milwaukee joined Dane County as the first municipality statewide to ban coal tar and high PAH sealants. Since that time, nearly two-dozen other communities across the state have passed similar restrictive ordinances.

Given the strong scientific evidence weighing against coal tar and other high PAH sealants and the fact that safer substitute products already exist, it is imperative for the legislature to support this common-sense state-wide action. I commend the sponsors of this legislation and strongly urge your passage of AB 797 and SB 716.

Sincerely,

A handwritten signature in black ink that reads "Tom Barrett". The signature is written in a cursive, flowing style with a large initial "T" and a long, sweeping underline.

Tom Barret
Mayor

January 30, 2020

To: Honorable Members of Wisconsin's Senate Committee on Natural Resources and Energy

From: Mr. Christopher Magruder, retired Water Quality Professional and concerned citizen of the City of Greenfield, WI

Regarding: *Recommending and encouraging the support for Senate Bill 716 (prohibiting the sale and use of coal tar-based sealants and high PAH sealant products)*

Dear Members:

My name is Christopher Magruder, I am a retired water quality professional with over forty +(40) years of experience in water resources and related environmental studies that includes water quality and wastewater monitoring, flood management, ecological research analysis and emerging contaminant research (including the harmful impacts from polycyclic aromatic hydrocarbons (PAH) pollution).

Polycyclic aromatic hydrocarbons (PAHs) are a class of harmful chemicals classified as persistent organic pollutants and many are cancer causing. These toxic chemicals are found in a variety of sources but the highest concentrations are found in certain pavement sealant products, particularly those derived from coal tar.

Coal tar and high PAH sealants pose a serious threat to both human and ecological health. Pavement sealant products only last a few years before reapplication is required, meanwhile the sealant material erodes away. Much of these sealants (and the PAHs they contains) are carried with stormwater runoff into area ponds, rivers, and lakes where they concentrate in the sediments.

Research analyzing sediment samples collected in lakes and rivers around Wisconsin, mirroring results from elsewhere around the country, has shown two important results:

1. High-PAH pavement sealants are the primary source of the PAHs found in many of our state's water bodies.
2. And, often that principal source of this pollution causes PAH levels to be so high in our natural water bodies that aquatic life suffers.

In addition to moving with runoff water, pavement sealant dust also ends up in homes, schools, and other buildings adjacent to sealed parking lots and driveways. According to United States Geological Survey (USGS), PAH levels typically found in and around buildings adjacent to parking lots sealed with high-PAH sealants are high enough to cause a 38 times higher lifetime cancer risk for those buildings' occupants and a 14 times higher cancer risk for children just spending their formative years growing up there. This is a serious human health risk.

Additionally the use of high-PAH pavement sealant products poses a serious financial risk to municipalities. Routine maintenance of stormwater retention ponds involves removing accumulated sediments. High levels of PAHs in those sediments dramatically increases disposal costs. We have seen the high costs associated with clean-up of PAH contaminated soils and sediments from rivers and harbors, only to see those same areas re-contaminated again with PAH's. These clean-ups are (in one way or another) funded at the tax payer's expense! Wisconsin municipalities' future costs (and ultimately the average citizen's taxes) are tied to this problem that could easily run into the millions of dollars, but these costs can be avoided if high-PAH pavement sealant products are prohibited statewide.

This triple threat of water quality, public health, and fiscal impacts on local communities and their tax paying residents can be easily avoided if we address the root cause, which is the continued use of high-PAH pavement sealants. Safer low-PAH and zero-PAH pavement sealant products are readily available on the market and are comparable in cost and performance to high-PAH sealants.

Therefore, I sincerely ask that the State Legislature addresses the public health, water quality, and financial risk facing Wisconsinites from the use of high-PAH pavement sealants. I strongly and respectfully urge that the Legislature passes law (SB 716) banning harmful pavement sealant products containing high levels of polycyclic aromatic hydrocarbons (PAHs).

Thank you for your consideration of this important public health, water quality, and fiscal issue.

Sincerely,

Christopher Magruder

Christopher Magruder
11350 W. Coldspring Rd
Greenfield, WI 53228



Cultivating Community and Stewardship from the Ledge to the Lakeshore

January 27th, 2020

Officers

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Chris Olson - Vice President

Cathy Pabich - Secretary

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Nicole Matson - Climate Change Coalition Coordinator

Amy Fettes - Finance Manager

LNRP
P.O. Box 358
Cleveland, WI 53015

www.lnrp.org
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Committee on Natural Resources and Energy
Senator Rob Cowles, Committee Chair

Senator Cowles:

my personal testimony to the Senate Committee on Natural and Energy on SB 716, related to the prohibition of the sale and use based sealants and high PAH sealant products, please accept this as statement of support.

resident of the great State of Wisconsin and the Executive Director our State's passionate environmental organizations, I am grateful Water Quality Task Force's bipartisan recommendation to advance important legislation.

public servant who proudly served my community as Mayor for six attest to the value of this proposed legislation. My coastal the City of Port Washington, was an early supporter of this effort to public safety and better protect our local waterways. We the grave danger presented by high PAH sealant products to both community and our environment - and we acted.

Unfortunately, while our City of Port Washington took this action, some of our neighboring communities did not. Such inaction endangers our community residents and the natural environment live and upon which we depend, but it leaves harmful gaps in that too often go unnoticed. These gaps leave local residents, and wildlife exposed.

I can offer a personal example, and one that saddens and scares me. As a proud father of three daughters – our oldest daughter attends Dominican High School (Whitefish Bay) and our other two daughters are at St. Francis Borgia (Cedarburg) – I am personally very, very concerned about the high PAH-sealed asphalt surfaces which they come into contact with on a daily basis.

Recently, St. Francis Borgia opted to have the parish AND school parking lots sealed with a (high PAH) coal tar-based sealant. Our youngest daughters play on it every recess. It makes me very angry that our faith community placed their health at risk with that decision – but I don't fault Parish leadership. Our Pastor and his team had no clue these sealants were so dangerous, as the City of Cedarburg has not enacted an ordinance banning their sale and use, and the commercial applicator made no mention of health impacts. Therein lies the problem – there can be no such thing as a "fully-informed" public on this issue, and when left to commercial applicators, some will simply choose to go with the product they have always used. In fact, the commercial applicator in question, when asked after application about the dangers of the high PAH sealant he uses, responded that he has used the product his entire professional life, and since he does not have cancer, it is clearly safe. Obviously, this is an argument riddled with holes.

For me, this is a personal example demonstrating the need for statewide action to ban the sale and use of these high PAH products, and the value of the proposed SB 716. With this legislation, you have the opportunity to protect the public – my three daughters included. With this legislation, you have the opportunity to protect our natural environment – our local waterways and Lake Michigan included – and take important strides to enhance water quality and animal habitat. With this legislation, you have the opportunity to mitigate future impact to our local economies that will be felt when communities are forced to appropriate scarce financial resources for necessary cleanup efforts. And, with this legislation, you have the opportunity to provide clarity and uniformity statewide on an issue of significance, eliminating dangerous gaps in coverage for residents of local communities who fail to act.

Once more, Senator Cowles, thank you very much for your leadership on this issue and consideration of my testimony in support of SB 716.

With gratitude for your service to our great State of Wisconsin,



Tom Mlada
Executive Director – Lakeshore Natural Resource Partnership (LNRP)

January 28, 2020

To Whom It May Concern,

I am requesting to submit testimony on SB 716 relating to: prohibiting the sale and use of coal tar-based sealants and high PAH sealant products because I cannot attend the public hearing in person

My name is Patrick DeJardin, I run a family business Jay's Asphalt Maintenance with my father, Jay DeJardin. I write this testimony to voice my opinion to be in favor of a coal tar/high PAH sealant ban. I have a few personal views and experiences to share regarding coal tar sealants.

About 13 years ago, we had stopped using coal tar. Coal tar is a name of an asphalt sealant for driveways/parking lots and at the time was the only decent product available to companies. Coal tar is harmful to the applicators and the environment. Caught off guard an applicator can suffer a multitude of direct chemical burns to skin similar to harsh sunburn, irritated eyes, and for some even irritated airways. I would know, as I have pictures of my arm enveloped in chemical burns just from cleaning out a tank that was unused for 7 years. That's right, even after 7 years of sitting idle coal tar can still cause damage. We stopped using coal tar for this reason, and at first we had many struggles using the substitutes on the market not only for the costs at that time but also for the inferiority other products had. However, we stuck with it and now 13 years later the product substitutes to replace coal tar are substantially more affordable, durable, accessible, and friendly to the applicators/customers. Like lead paint and asbestos, coal tar was once the best product on the market for its respective field, but thanks to science & ingenuity, we have a replacement for coal tar called asphalt emulsion products. And also thanks to science, we are more aware of the effects coal tar has on people (highly carcinogenic) & our ecosystems (high cost of cleanup, damage to waterways, and death of numerous small organisms).

Thank you for your time and consideration in such an important matter, since I cannot personally be there to talk and answer questions this time I will provide a FAQ sheet below in hopes that it can help.

Patrick DeJardin

Jay's Asphalt Maintenance

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FREQUENTLY ASKED QUESTIONS – REGARDING COAL TAR SEALANTS

- If coal tar is as terrible as presented, why do people still use it?
 - This is always the big one. Coal tar has been around the longest, and has a familiarity to it in name and usage that makes companies go to it to avoid change. Also, coal tar is still roughly 10% cheaper, and in a cut throat world of bid wars, being a few cents cheaper keeps this product in use. Large company owners who don't work on the front lines send workers to use this stuff not caring about employee health as long as they can save a few dollars a year.
- What products are out there to replace coal tar, and how are they in comparison?
 - The best substitute on the market is asphalt emulsion (AE) sealers. Within the past 10 years, great strides have been made on this product line and now it's an excellent, superior product to coal tar. Coal tar is a stiff shell that covers pavement acting like a shield, however by doing so it cuts off breathability of the asphalt and oxidizes the pavement below, harming the longevity of asphalt. AE however, uses the same minerals and oils found in asphalt pavement and acts as a surface rejuvenator and protectant, letting the pavement breath all the while protecting the asphalt below from wear, sun, and the elements. Also, both products boast a similar longevity, if applied correctly, of 3-5 years between treatments. So in summary, AE outshines coal tar in terms of asphalt health and longevity at the cost of being a few pennies more per gallon.
- How easily accessible are the substitutes for coal tar for applicators and homeowners?
 - Hardware stores like Fleet Farm, Menards, and Home Depot already stock buckets of asphalt sealant without coal tar. In fact, they only stock coal tar free options. So by banning coal tar, you won't be interfering with do-it-yourselfers and from the contracting perspective, most if not all manufacturers we currently buy from sell a multitude of options of coal tar or asphalt emulsion. It's as simple as calling up the salesman and asking for a new product on the next load.
- How will banning coal tar/high PAH sealants affect companies using it?
 - Companies that would have to make a change from coal tar to asphalt emulsion would just have to adjust a few very simple things with their equipment. Such as: using less water when mixing the product, using a bigger filter, and turning up air pressure on spray systems. These adjustments are very cheap and often a manufacturer would provide the filter free of charge as well as offering product knowledge so the applicators are ready for anything.

FAQ CONTINUED

- What kind of products do most of the soliciting companies use?
 - Coal tar. Now, banning coal tar will really help overall commerce and business reputation. The companies you may have heard about this past summer on the news and radio that literally knock on doors and distribute fliers ripping off unsuspecting homeowners sometimes thousands of dollars worth, they all use coal tar. The reason being, when out for quick money the cheapest product (even the couple pennies less a gallon it is) is the choice. Also, coal tar can be heavily watered down, sometimes up to 40-50%, and still look black long enough for a check to clear. By watering it down this much, “fly-by-night” companies can make a driveway look black at minimal cost get paid and by the time the customer realizes what they paid for, it’s too late most likely the product won’t last a year. By doing this, home owners can develop mistrust for the business, and the asphalt maintenance profession has gotten a few black marks over the past few years. Most of these scammers are from out of state/out of the area and do not pay taxes, registrations, or DOT compliance so it takes out of Wisconsin’s pocket and only hurts us professionals that do comply. By banning coal tar, scammers will become less and less and will give us professionals more business and the industry as a whole will improve because of it.
- How come if coal tar has been around as long as it has, why have issues just now came up? Why haven’t we heard of this as much?
 - Scientific development and USGS research over the past 10 years or so have made leaps and bounds forward and now with better testing, coal tar has been found out to be more trouble than its worth. Pre-2010, it was “okay” to use in the eyes of the world for the most part. Think of a “if it isn’t broke, don’t fix it” mentality. Well now it’s considered “broke” and we are trying to get to the fixing part. With help of organizations like Clean WI and local cities holding educational seminars of sorts, the word is getting around and most places have been in full support of bans after learning what is now known about coal tar and its substitutes.
- Has coal tar been banned anywhere else besides Wisconsin?
 - Yes! In fact, Minnesota has had a statewide ban in effect for a few years now and in summer 2019 has begun a few lawsuits against coal tar manufacturers for environmental cleanup costs. Wisconsin itself is banned in many cities/counties, similar to Michigan, Texas, New York, Illinois, North & South Carolina, Washington, District of Columbia, Maryland, Kansas, California, Massachusetts, Missouri, Connecticut, and lastly Maine.

Jan. 30, 2020

Members of the Senate Committee on Natural Resources and Energy,

SealMaster is the largest manufacturer of pavement sealants in the world. I assume in the state of Wisconsin we make and sell more pavement sealer than any other manufacturer and likely sell more than all others combined.

In regards to dangers of coal tar sealers and other high PAH sealants (steam cracked or liquid petroleum based) I have no testimony as to the actual validity of concerns outlined by many sources. I can tell you that many of my customers (mostly the largest contractors) that have moved away from steam cracked, liquid petroleum and coal tar sealants have done so based on direct concerns for employee safety and environmental effects. The safety data sheets on these products are not preferable.

In regard to asphalt based alternatives being as cost effective and durable as high PAH sealants this has been the argument from coal tar sealant manufactures since the beginning of the wave of sealer bans across the country. Our pricing for asphalt based products verses high PAH sealers on a per square foot basis is essentially the same when following the manufacturers specifications.

We see no difference in cost per square foot in our competitors pricing as we compete with our competitors in price quality and value on a daily basis. Our value and the value of our asphalt based products against not only any of our competitors' coal tar products but also against our own coal tar products. SealMaster makes coal tar sealants our coal tar sealants are considered as good or better than any competitors.

None of our coal tar sealant or any competitive sealers are outperformed by any of our asphalt based sealants. There are asphalt based sealants that will not perform as well as some coal tar sealants but SealMaster does not make them. Our asphalt based sealers are higher in solids than high PAH sealants and will perform better and have advantages over any other sealer. Our top selling products are asphalt based sealers and our asphalt based sealers have been the product of choice for more than 10 years.

We recommend to all contractors, national accounts and government entities specify or require only asphalt based sealers as they offer more benefits with no cost disadvantage. The only instances in which people have argued to me that coal tar is cheaper is when they do not follow the manufactures specified applications methods.

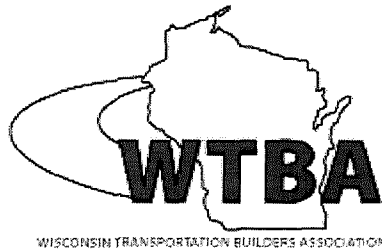
In other words they argue coal tar is cheaper if you apply less than the recommended amount or use an inferior mix design. States or areas where high PAH sealers have been banned have not suffered any financial hardship or lost value in their pavement. Annual cost of pavement is lower when properly maintained and when only asphalt based sealers are used.

I would like to mention that we are now in a situation where I believe most of my constituents (pavement contractors, specifying engineers, property owners and managers) are accepting or even prefer a statewide policy as the town, city and county bans continue to grow.

We get calls daily asking us if a product can be used here or there and unfortunately we don't have reliable information to answer. No one seems to know when and where they can use any particular product or what the fine or penalty is or might be.

I have had competitors tell contractors they can use their high PAH products in areas where I am pretty sure they cannot. Many have expressed frustration and just wish it was the same everywhere and all product suppliers understood if their products are allowed or not.

Jay Palaski
President SealMaster of Wisconsin
President of SealMaster of Minnesota



Thank you, Chairman Cowles and members of the Senate Committee on Natural Resources and Energy, for holding a public hearing on Senate Bill 716. On behalf of WTBA and its members, I appreciate the opportunity to submit testimony in support of this legislation, and also to urge one minor change.

We applaud the efforts of Senator Cowles and Representative Kitchens as well as the co-sponsors of the bill for crafting legislation that takes steps to eliminating harmful chemicals, such as Polycyclic Aromatic hydrocarbons (PAHs), from the environment. The marketplace has adjusted and now provides safer, cost-competitive alternatives to PAHs such as asphalt. Not only are asphalt based sealants safer, readily available, and affordable, it reduces and mitigates the presence of PAHs as a carcinogenic storm water runoff pollutant.

We are asking, however, that members of the committee consider adding an amendment to the bill so that use of recycled materials is not hindered. The amendment is identical to Assembly Amendment 1 to Assembly Bill 797 offered by Representative Kitchens, and eliminates the words "or otherwise use" on page 2, line 8 of the bill. In some cases, although rare, recycled material may contain coal tar – and contractors may not even be aware of its existence. While the coal tar may be minimal and likely burned off in the process of reusing it, the current form of the bill would technically ban using recycled material that contains the product. This could hinder recycling efforts all together since there is no way of knowing whether or not the recycled asphalt contains coal tar. We have run this language by Clean Wisconsin and they are okay with the amendment being adopted.

Again, thank you Chairman Cowles and members for allowing me to provide written testimony. If you have any follow up questions or concerns, please do not hesitate to contact me via email at pgoss@wtba.org or via phone 608-256-6891