

PCTC PAVEMENT COATINGS TECHNOLOGY COUNCIL

September 2023 Newsletter



Raising Awareness

As many of you know, PCTC recently secured a major victory in its case against USGS. In 2010, USGS published a paper describing the use of EPA's Chemical Mass Balance (CMB) model to assess their hypothesis that refined tar sealants (RTS) are an important source of polycyclic aromatic hydrocarbons (PAHs) in urban sediments (Van Metre and Mahler 2010). As the model was developed to evaluate sources of air pollution at one location and USGS used it to evaluate sediment samples from 40 lakes from across the country, this application has been the subject of an on-going debate. Since that time, PCTC engaged scientists and attorneys to ensure the data contained in the output, released in 2022, was in fact correct.

The key findings are:

- USGS's modeling approach has not been validated.
- USGS used invalid model inputs.
- USGS's study did not include appropriate controls.
- USGS's conclusions are based on circular reasoning.
- The results do not support the hypothesis that RTS is an important source of PAHs in urban sediments.

Over the past several months, PCTC continued to work with the team at Exponent Labs as well as renowned attorney David Kanter to produce a brief outlining the outcome of this battle and celebrating what can only be considered as a victory for our industry. Click the button below to read the full brief.

[USGS Brief](#)

Research & Development



Images of the Williamson Creek testing site – 2005 vs. 2023.

Austin Revisited

Last year, PCTC retained the services of Ramboll Labs to revisit its work done in Austin in 2008. The results from this study will be delivered to PCTC during the last week of August 2023 and subsequently distributed to membership.

Background (An Abstract from the Ramboll Proposal)

Following an investigation into elevated levels of PAHs discovered in a small creek adjacent to a popular city park, and follow up studies on sealed parking lots conducted by the USGS, the City of Austin (COA) concluded that parking lot sealcoat could account for the majority of PAH loadings to urban creeks and streams in the Austin area and enacted a ban on the use coal tar-based pavement sealer within the city limits, effective January 1, 2006.

Ramboll (then known as ENVIRON) measured PAH concentrations in stream sediments collected before and after the ban and found no net change in PAH levels in Austin stream sediments. Samples were collected in October 2005, prior to the municipal ban, and again in April, 2008 – two years following the ban. Samples were analyzed for PAHs (parent compounds and alkyl homologues) using gas chromatography/mass spectrometry (GS/MS) in selected ion monitoring (SIM) mode. Differences in total PAH concentrations between samples collected before and after the ban showed no net change in PAH levels.

In addition, results of advanced hydrocarbon fingerprinting revealed only subtle differences in PAH profiles that appear to reflect weathering effects associated with rainfall events. The fingerprint analysis did not reveal real differences in source inputs.

Collectively, these data results show that the ban had no appreciable effect on PAH levels in Austin stream sediments and clearly did not result in removal of a majority of PAH input. However, because coal tar sealcoat can last for several years, it has been argued that two years is an insufficient amount of time to observe any potential change in sediment PAH levels.

2023 Study

The objective of the current study is to collect additional sediment samples 16 years after the ban, in locations previously sampled, to test whether the ban continues to have no noticeable effect on PAH levels. This study is entirely funded by PCTC and its members and may play a critical role



Brian Riggs, PCTC Executive Director, visits giant simulator while meeting with representatives from the Rowan CREATES program, a global asphalt and pavement research facility.

in determine the environmental impact several years after the ban was in place.

PCTC and Rowan University

During its midyear conference, invited guests Dr. Yusuf Mehta and Lab Director Caitlin Purdy met with PCTC leadership and members to discuss the exciting work being done at the [Rowan CREATES program](#), a fully functioning lab and testing facility located in Southern New Jersey.

PCTC is currently working with the team at Rowan to determine viable and relevant research opportunities including discounts to PCTC membership for research and direct lab services.



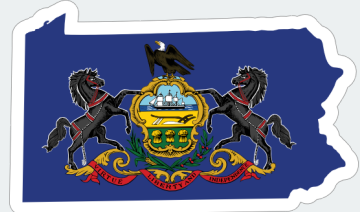
Legislative Activity

Illinois

In 2021, the Illinois Public Department of Health agreed to [SB-692](#), which provided procurement guidance for public schools, daycares, and other public facilities, when purchasing products containing coal tar sealants. Originally proposed to take effect on January 1, 2023, the guidance was initially up for reconsideration this summer. However, Mark Biel, PCTC's liaison from the Illinois Chemistry Council, does not believe an amendment will take place this year.

Wisconsin

In 2021, Steve Conway of Conway Consulting, PCTC Executive Director, Brian Riggs, and PCTC Scientific Consultant, Anne LeHuray, testified on behalf of the industry to counter a statewide coal tar ban. Those efforts were successful but earlier this year, a proposed ban made it into the governor's budget. Once again, PCTC engaged Conway Consulting to monitor the events unfolding and the coal tar



ban provisions were successfully removed from the Governor's Budget. However, for the city issues, it appears that the opposition is getting individual cities to create ordinances to ban coal tar. There is not much the counties can do.

Pennsylvania

PCTC is currently monitoring Pennsylvania House Bill 1166, as described below:

"Polycyclic aromatic hydrocarbons (PAHs) are a class of chemicals found in coal, crude oil, and gasoline. Coal tar and other asphalt sealants containing high amounts of PAHs are commonly used to maintain driveways, parking lots, and playgrounds. The fact that these chemicals are often spread in the areas where our children innocently play is particularly troubling.

Because PAHs do not break down naturally, they are known to negatively impact people's health and the environment. For example, the cancer risk for people living adjacent to PAH-based asphalt sealants is 38 times higher than it is for others. One of my own children experienced health issues that our doctor said was most likely tied to the coal tar sealant that was used on my driveway. Particulates from these sealants often break off and are tracked into homes on shoes, affecting indoor air quality. Chemicals found in these sealants have also been shown to contaminate the environment by washing into waterways.

Alternative sealer options are asphalt based and have the same efficacy, look, availability, and price, but do not carry the health and environmental dangers that PAH-based asphalt sealants do. When I was a council member for the Borough of Fox Chapel, I successfully led the effort to ban these types of sealants in the borough. Upon this success, I shared my message with members of other communities in southwestern Pennsylvania and worked with officials in a bipartisan manner to ban these sealants in an additional 20 communities.

PAH-based asphalt sealants are banned in 13 other states. I believe it is time for the Commonwealth of Pennsylvania to join in protecting our loved ones and the environment, which is why I plan to introduce legislation that would prohibit the supplying, selling, or application of PAH-based asphalt sealants in our state."