

# PA ASPHALT PAVEMENT ASSOCIATION



## SUSTAINABILITY

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### »» MEET THE STAFF

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Steven L. Koser, P.E., Associate Director  
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### IN THIS EDITION

# UPCOMING PAPA EVENTS...

MARK YOUR CALENDARS

## ➤➤➤ 65TH ANNUAL CONFERENCE JANUARY 20, 21, 22, 2025

This year certainly has gone very fast, and we are very excited our 65th PAPA Annual Conference is just around the proverbial Hershey corner. The conference theme “Paving the Future: Innovations in Sustainable Asphalt Technology,” reflects our industries mantra to look forward and continuously improve our premiere product, asphalt pavements. Of course, we learn from doing and look to see how previous innovations have impacted asphalt pavements, but in this age of having to deal with Climate Change, we want to ensure our pavements are sustainable and longer lasting. We also want to look at producing asphalt material using less energy and be able to recycle reclaimed asphalt pavement back into the mix efficiently and even enhance the pavement durability and resilience. As always, we have a very educational and informational line up of conference presenters from all over the United States, as well as Pennsylvania. You will learn much and go away with ideas and best practices that you can utilize in your business or organization. So, don't delay, register for the 2025 PAPA Annual Conference now. It will be even more informative and rewarding than past ones.



## ➤➤➤ REGIONAL TECHNICAL MEETINGS MARCH 18, 19, 20, 2025

March 18, 2025 - Double Tree, Cranberry  
March 19, 2025 - Wyndham, Boalsburg  
March 20, 2025 - Delta Hotel by Marriott

## ➤➤➤ ENVIRONMENTAL SEMINAR APRIL 16, 2025 Hilton Garden Inn Harrisburg, PA



## ➤➤➤ PENNDOT/PAPA BUS TOUR JULY 29-30, 2025 DISTRICT 10



## Charlie's Corner

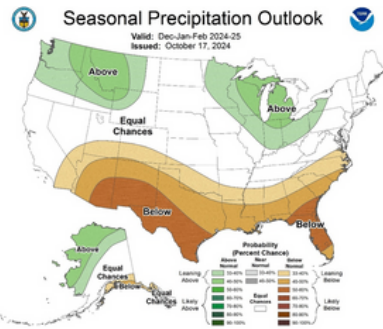
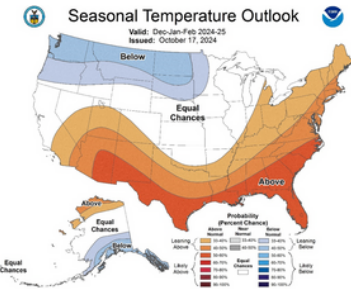
It is really hard to believe that the 2024 paving season is almost in the books. A lot of you are still paving, as the weather across Pennsylvania has been fairly dry and seasonably warm through mid-November. The NOAA forecast (see NOAA Maps) is for this pattern to continue into December and beyond.



Charles Goodhart  
Executive Director

That does not mean you will be able to pave into and through December, as the days get shorter and the mean temperatures decrease, but perhaps it is time to review the restrictions in PUB 408 Section 413 regarding start and cutoff dates for paving. Yes, they are pretty complicated and intrusive, but they were a compromise when agreed to over six years ago. As with any substantive change like this, the PennDOT District Executives (DEs) are asked for their input and approval. Then Deputy Secretary for Highway Administration, George McAuley told us at the time if he gets most of the DEs to agree on anything, it is a rare event. Once we agreed to the proposed changes, George proposed to the DEs, and he told us that nine out of them were in favor and two were not. So, George said it is a deal, and the verbiage was revised after a Clearance Transmittal was proffered and accepted.

Perhaps it is now time, with a track record of many years of using warm mix technology, PWL (50% density), etc. that we revisit the start and stop dates or even eliminate them and just simplify the specification to say “Do not place asphalt paving mixtures when surfaces are wet or when the air or surface temperature is 40F or lower. If work is halted because of weather conditions, the Representative may allow the Contractor to place limited quantities of mixture that are enroute to the project.” What do you think? There is only one PennDOT DE who was in place when we last worked on revising PUB 408, Section 413.3 (a) 2 (b) Weather and Seasonal Limitations. Is it time to start working on a revision to that spec and make a proposal to PennDOT?



## BAG HOUSE FINES TECHNICAL WORKING GROUP

In September of this year, the PA Asphalt Pavement Association (PAPA) and the PA Aggregate and Concrete Association (PACA) formed a joint Technical Working Group (TWG) to look at and provide recommendations to the PA Department of Environmental Protection (DEP) regarding revising the BUREAU OF WASTE MANAGEMENT DIVISION OF MUNICIPAL and RESIDUAL WASTE, **GENERAL PERMIT WMGR028** “Beneficial Use of Baghouse Fines or Scrubber Pond Precipitate from Hot-Mix Asphalt Plants”. Here is the link to the GP -

<a href="#">WMGR028 (PDF)</a>	Beneficial use of baghouse fines and/or scrubber pond precipitates, generated by hot-mix asphalt plants, for use as: (i) an aggregate in roadway construction, (ii) a soil additive, (iii) a soil conditioner, or (iv) a component or ingredient in the manufacturing of construction products.
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This permit has been in place for almost 20 years, was last revised in 2017, and is scheduled to be renewed in 2027. Apparently, some PACA members, who are also PAPA members, are having some issues with disposing of excess baghouse fines and DEP inspectors are questioning some of the ways and means we are utilizing the dust. So, the TWG was formed to review the entire permit and make suggested revisions. The TWG is particularly focused on these two parts of the GP -

12. The baghouse fines or scrubber pond precipitates authorized under this general permit shall not be used as a valley fill material, to fill open pits from coal or non-coal mining, or to level or bring an area to grade unless one of the following applies:

a. Baghouse fines or scrubber pond precipitates are used as embankment material, to level or bring an area to grade where a construction activity will commence within three (3) months after the placement of baghouse fines or scrubber pond precipitates.

b. For multi-phase construction projects (such as development of a commercial/industrial park), all baghouse fines or scrubber pond precipitates shall be covered within sixty (60) days of completion of fill placement, unless it is uncovered as a requirement of ongoing active phase construction.

c. When approved for use as a soil additive or conditioner as part of the reclamation plan for permitted surface mining operations.

A. ACCEPTABLE USES:

1. Where used as an aggregate in roadway construction, the baghouse fines or scrubber pond precipitates must comply with the requirements of the Pennsylvania Department of Transportation's (PennDOT) specifications as outlined in their Publication No. 408 (Specifications), and conform with applicable engineering, other professional, or industry practices and procedures as the raw material for which it is being substituted.

2. The beneficial use of baghouse fines or scrubber pond precipitates as a component or ingredient in the manufacturing of construction materials must meet the applicable standards set forth by the American Society of Testing and Materials (ASTM), or other national, state, or industry standard for which it is being used.

3. Where used as a soil additive or soil conditioner, the maximum amount of baghouse fines or scrubber pond precipitates applied to any site shall not exceed five hundred dry tons per acre.



ASTEC Pulse Jet Baghouse (Photo courtesy of ASTEC)

Of course, the entire GP is being subjected to rigor and scrutiny, as this material is considered a beneficial waste (like RAP) and if not contaminated by hydrocarbons or other deleterious matter, why is it being regulated and placing so much burden on our industry. It is just pieces of rock. From a survey (17 State Asphalt Pavement Associations responded) we conducted, only one other State regulates baghouse fines and that is Illinois. Really does make you wonder why this GP was enacted in the first place.

Jeff Frantz from Glasgow Inc., Andrew Smith from Allan Myers, and I are representing PAPA on the TWG. We would welcome your input on changes that should be made to the General Permit or a strategy we could utilize to change DEPs opinion that a permit is even warranted. We would also appreciate your suggestions on any other beneficial uses for baghouse fines. Please email me [cgoodhart@pa-asphalt.org](mailto:cgoodhart@pa-asphalt.org) with any questions or suggestions.



## Technical Talks

**Mary Robbins, Ph.D., P.E.**  
**Director of Technical Services**



### Navigating the Seas of Change

There is no shortage of change in our industry. Since I joined PAPA just over 2 years ago, we have seen progress on many initiatives. We are moving towards Balanced Mix Design in PA just like many of our neighbors. Which means in 2025 IDEAL CT and Hamburg Wheel Tracking Test results must accompany JMF submissions for all wearing courses (except 4.75 mm NMA Superpave and 9.5 mm and 12.5 mm NMA SMA) [SOL 481-24-01]. E-Ticketing is now at full implementation. And earlier this year we were informed our industry would be a leader in Environmental Product Declarations (EPDs). Which means all JMF submissions must be accompanied by an EPD for approval.

Through the Asphalt Paving Quality Improvement Committee (APQIC) which consists of representatives from PennDOT, PA Turnpike Commission, PAPA, and the Asphalt Institute, it was decided we should take advantage of FHWA's joint workshop between agency and industry on BMD. We will hear how other states have navigated these waters; and I am looking forward to what we can learn and how we can take these examples and work together to ensure BMD is successful in PA.

We asked PennDOT to conduct outreach for this new EPD requirement. They responded by asking us to partner with them on an FAQ sheet, a one-pager on how to enter the data into e-CAMMS, and a webinar for all Bulletin 41 producers.

They provided a notification on e-CAMMS with links to these resources, and we blasted notification of the webinar out to our members and asked our resident EPD gurus, Heather Warner of Allan Myers, Martin Libertini and Noah Shaltes of Lindy Paving Group, to present and answer questions during the webinar. I think it was a success. You will see links to recorded webinar and FAQ sheet posted on our website as soon as it is available.

But, these are no small changes. Your technicians are busy prepping performance test samples and waiting the 6+ hours for results from the Hamburg Wheel Tracker. And the same technicians may be helping your company develop EPDs; mapping out the mileage from the quarry to the plant, and entering the mix design components in the data gathering spreadsheet, or entering it themselves into the NAPA Emerald EcoLabel tool. We heard how other states have navigated these waters; and I am looking forward to taking what we learned and working together to ensure BMD is successful in PA



It is difficult to see the light through the storm.

EPDs and BMD performance tests are just large waves that will undulate and recede. They will not take down your boat. Focus on the light shining ahead. What is and has always been our guiding light? To make durable, cost-effective asphalt mix that meets the customers' specifications. That remains to be true even in 2025. We do NOT have performance test thresholds to meet. We are still in the benchmarking stage of BMD. Our mixes are still held to the same specifications they were a year ago. This is true for EPDs. We are in the data collection stage only. Nothing more, nothing less. We have no global warming potential (GWP) threshold to meet. The mixes themselves are not changing.

This storm shall pass. These changes are rocking the boat, there is no doubt about it. But calmer seas are ahead of us.

When we first started BMD benchmarking, I heard of our members' challenges. I heard the difficulty in getting mixes tested in a timely manner from outside labs. I heard about the difficult decision to purchase new equipment and train technicians. In the last year I have not fielded one email on those challenges. Does it mean those concerns were not valid? Absolutely not. They are real challenges our industry has faced and is still facing. But we learned to adapt, and we learned how to be efficient at it, and I bet we learned and are still learning about our mixes.

For those of you who are new to EPDs, it likely feels like a very daunting task. But bear in mind that the effort is upfront. Once the EPD has been developed, it is very easy to update. EPDs are plant specific and therefore require detailed information about each plant. Once that information is entered, the JMF components and the haul distance of each component is what changes from mix to mix. There is now a copy/paste feature that allows you to more easily enter things as you change from mix to mix. This first year is the hard part, when you have to gather all of the utility information and figure out the haul distance from each quarry and asphalt binder supplier. But once completed, it will just be a matter of updating the EPD. As you get through this storm of data collection and entry, the waters will calm, and the sky will be clearer. And in the process, you may just learn a few things about your operation that can help you run more efficiently in the future. If you are in need of additional resources, the EPA recently announced EPD advisory services available to "businesses that manufacture construction materials," (that's you, asphalt producers!). [EPD Advisory Services Available](#)

As we hold on and try to fight through the storm, focus on that lighthouse. We are still making asphalt mix to the same specifications, and our goal remains the same: to continuously improve our product. This industry is innovative and adaptive to change. When the oil embargo hit in the '70s we turned to reclaimed asphalt pavement (RAP) and sulfur modified asphalt binder. Turns out we were on to something with RAP. We were recycling well before we realized how critical it would be to meet necessary environmental goals. Approximately 96% of Pennsylvania's roads are asphalt or have an asphalt surface. We got there by making and placing a great product that lasts, despite the storms of the past. You could argue those storms of the past led us to continuous improvement. If we continue to work together among ourselves and build on the long-standing partnerships with PennDOT and PA Turnpike Commission, not only will we weather the storm, but we will also come out stronger and more innovative.



# call to **ACTION**

**STEVEN KOSER, P.E.**  
**ASSOCIATE DIRECTOR**

Let me start this newsletter article with some background on the topic and then delve into the innovations that PAPA has championed.

The Pennsylvania State Transportation Innovation Council (STIC) facilitates the rapid implementation of proven, well-researched and documented state, regional, national and international technologies, tactics, techniques and any other innovations that are new to Pennsylvania. The STIC also supports and promotes the implementation of Federal Highway Administration (FHWA) Every Day Counts (EDC) innovations.

The STIC accepts innovation submissions from Pennsylvania transportation stakeholders and partners. Selected innovations are developed for deployment and promoted to become standard practice within the transportation community. The two (2) innovations that PAPA has championed recently, Cold Central Plant Recycle – CCPR for High Volume Routes, and Fuel Resistant [FR] Highly Modified Asphalt for use in Combatting Amish Buggy Pavement Damage, can be found at the above innovations hyperlink under the Construction and Materials drop-down.

**Cold Central Plant Recycling (CCPR) for High Volume Routes** - CCPR is the process in which a base or binder asphalt pavement layer is produced at a centrally located mobile/stationary plant using Reclaimed Asphalt Pavement (RAP) from an existing stockpile or millings from an ongoing project, either emulsified asphalt or foamed asphalt and sometimes an active filler such as cement is used. After the CCPR is produced, it is loaded into trucks and hauled to the project for placement using conventional paving and compaction equipment. PennDOT currently has a specification for roads with an ADT of 15,000 or less. This ADT restriction limits the use of CCPR to suburban and rural routes. However, the excess RAP resides in urban areas where traffic volumes are high. Virginia DOT has had great success with using CCPR on interstate routes in 2011 and in 2018, as well as through several cycles at the NCAT Test Track.

There are some areas of the state where there is so much RAP, producers are facing the challenge of where to put it all. Limits on RAP in asphalt mixtures means these stockpiles continue to grow. As we face a growing need to find sustainable solutions to maintaining our roads, CCPR presents as a tool in the toolbox. It will maintain RAP as a valuable resource, and if we can find success in a 100% RAP cold mix, why can't we have success in higher RAP (hot/warm) asphalt mix?

The CCPR for High Volume Routes was approved in the summer of 2023 as a STIC Innovation. The innovation was recently approved for FHWA STIC Incentive Program federal funds amounting to \$93,000, which require a 25% state funded match. The funds have allowed the team to bring aboard a subject matter expert, Stephanie Drain of S Drain Engineering of IL, LLC, who helped VDOT with their use of CCPR on Interstate 64, and has assisted other State DOT's in development of CCPR and cold-in-place recycling specifications. Technical assistance includes the review, consultation, design support, assistance in planning and bid documents, and support into construction.

The state matching funds come from the Strategic Recycling Program (SRP) in PennDOT which the Pennsylvania Department of Environmental Protection (DEP) approves as part of a Memorandum of Understanding (MOU) between the two agencies and which are provided on a reimbursement basis. The end goal is to construct a pilot project using CCPR in District 6.



**Fuel Resistant (FR) Highly Modified Asphalt for Use in Combatting Amish Buggy Pavement Damage** - This innovation uses highly polymer modified jet fuel resistant asphalt that is extremely resistant to rutting, and raveling due to the damaging effects of jet fuel. While the specialized asphalt binder was developed for airfields, some agencies have found success when used on horse and buggy or Amish buggy routes. The most notable success story is that of Central Park in New York City. The City was daunted by annual repaving of the New York City Marathon finish in the Park due to damage from horse drawn carriages. Mix produced with the jet fuel resistant highly modified asphalt binder was taken from nearby LaGuardia Airport as a last-ditch effort to try something new and has performed excellently for over 15 years. Florida DOT utilized the fuel resistant highly modified asphalt binder in mix placed to combat damage from horse drawn carriages in 2015 and again in 2019 [[link to story](#)]. Delaware DOT utilized the specialized binder in a 2-inch Superpave mix as part of 4.5-inch mill/fill to address damage from Amish Buggies.

The STIC Innovation was presented and approved by the committee in late 2023. A development team was quickly assembled to move the innovation towards pilot projects in locations with damage due to Amish Buggies.

Specifications from Delaware and Florida DOTs were reviewed and comments from the two states were used to make modifications to PennDOT's current highly modified asphalt binder SSP by Pavement Materials Engineer (Kevin Gnegy, P.E.). The team members are currently meeting and discussing funding options, potential candidate project locations, and have collected pavement condition (including current video recordings) and maintenance history of some of the potential candidate project locations. Some of the funding options being discussed include:

- PennDOT's Research funding
- FHWA's Accelerated Innovation Deployment (AID) grants funding - Infrastructure Investment and Jobs Act (IIJA) of 2021, a.k.a. the Bipartisan Infrastructure law (BIL)
- FHWA's Accelerated Implementation and Deployment of Pavement Technologies (AID-PT) funding – Moving Ahead for Progress in the 21st Century Act (MAP-21)
- Carbon Reduction Program (CRP) funding – Infrastructure Investment and Jobs Act (IIJA) of 2021, a.k.a. the Bipartisan Infrastructure law (BIL)
- STIC Incentive funding (although these funds can not be used for construction)

Additionally, PAPA has assisted in facilitating the vendor who makes the FR asphalt binder material to make application to PennDOT's New Products and Innovation (NPI) group to start the development of a work plan and eventually seek approval of the product on PennDOT's Qualified Products Listing (QPL) for construction (Bulletin 15 (PennDOT Pub. 35).



# WELCOME

# NEW MEMBERS

## PAVING / MILLING MEMBERS:



## ASSOCIATE MEMBERS



## CONSULTANT MEMBERS



# INDUSTRY PARTNERS

## NEWS, TRAINING, AND AWARDS



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Decades of expertise are represented in our Asphalt Institute seminars, webinars and training materials. We are dedicated to teaching best practices for testing, design and application of asphalt in the paving and roofing industries.



From mainline to maintenance, World of Asphalt is your complete resource for everything new in the asphalt industry. See the latest equipment, learn best practices and techniques, and use it all when you return to your business and jobsite.

### Women of Asphalt now has a branch in Pennsylvania!

In late 2023, we began our groundwork to get the Pennsylvania branch up and running. By March of 2024, we had an official Charter. We filled some critical leadership roles with great women from the industry, and are looking to add a few more women to key roles as we continue to evolve. We have had a productive year, and have high hopes moving forward.

Our branch will be present at the **PAPA Annual Conference**. We will have information set-up, and a dedicated lunch area in the **Overlook Room**. We would love to meet you! If you would like to be involved with an organization that is dedicated to leading and inspiring Women in the Asphalt industry, be sure to stop in and see us.

**Email [donna@pa-asphalt](mailto:donna@pa-asphalt) if you can join us for the WofA Luncheon!**

Grab your lunch from the buffet. We hope you can join us!



**An Annual Meeting of the Association will be held at the conference on Tuesday, January 21, 2025 at 4:15 p.m. sharp in the Overlook Room. This meeting is for PAPA Members Only.**