MEMBER BRIEF

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NATIONAL ASPHALT PAVEMENT ASSOCIATION

NAPA and Partners Form Stakeholder Coalition to Address Recent Studies on Potential Environmental Impacts of Asphalt Materials

Contact: Howard Marks, NAPA Vice President for Environment, Health & Safety

Two recent research studies conducted by Yale University and Florida State University that explore potential adverse environmental impacts from asphalt materials have been published and subsequently reported by local and national media outlets. In some cases, these outlets have sensationalized the potential impacts beyond what the actual study results report. The National Asphalt Pavement Association (NAPA) has a long-standing approach to take seriously, and understand, emerging research impacting the industry. In response to the publication of these two studies, NAPA has taken steps to review the research, maintain perspective, determine impacts on the asphalt pavement industry, and better position the industry, short- and long-term. This member briefing highlights NAPA efforts and what NAPA members need to know.

Florida State University Study

The Florida State University (FSU) study identifies previously unknown chemical constituents associated with stormwater runoff from asphalt pavements. Most of the published research has concluded that asphalt pavements are safe and do not leach chemicals when in contact with water (e.g., stormwater, fish hatcheries, drinking water conveyance). NAPA and State Asphalt Pavement Associations (SAPAs) are currently sponsoring a research project investigating environmental impact of stormwater runoff from RAP stockpiles. The Asphalt Institute (AI) is also currently sponsoring a project to critically review published literature and studies investigating leachate potential of asphalt – this includes the FSU study. We are confident that the NAPA/SAPA and AI projects will reinforce the safety of asphalt (pavement) leachate while addressing why some individual research studies may be flawed.

International Task Group Formed to Address Yale University Study

In early September, NAPA and AI formed an international industry stakeholder coalition of six organizations and their member representatives from the U.S. and Europe to examine these studies and coordinate an asphalt industry response and plan. Members of the Coalition for Asphalt Research on Emissions (referred to herein as Coalition) include representatives from the following organizations: AI; NAPA; Eurobitume (European counterpart of AI); European Asphalt Pavement Association (EAPA); Asphalt Roofing Manufacturers Association (ARMA); and European Waterproofing Association (EWA).

Interested member representatives from each association have also volunteered to assist in ongoing efforts, including Tara Wetzel and Gerry Reinke (Mathy Construction), Tony Kriech and Linda Osborn (Heritage Research Group), Jim Mertes (Payne and Dolan), and representation by the SAPAs. Since the Yale and FSU studies were conducted in the U.S. and focus on asphalt binder, consensus is that AI will serve as the coordinating lead of the Coalition.

Coalition representatives have met (via phone) multiple times to coordinate a comprehensive path forward. The coalition decided to focus exclusively on the Yale study because their research article hypothesizes that air emissions from asphalt pavement and roofing materials are a large source of unaccounted pollution in an urban environment. The study results, if taken at face value, could have potential ramifications for future selection of asphalt pavement. NAPA encourages engineers and decision makers to refrain from basing decisions on a single study conducted under limited conditions, and to maintain perspective given asphalt pavement's vast and validated benefits (see examples in last paragraph below).

Two initial activities have been implemented. First, the Coalition is in the process of requesting proposals from experts to provide an independent, critical review of Yale's study. We anticipate this initial review will be completed by November 2020. Second, we have engaged the Yale study authors with the following requests:

- Present their findings to the industry so we can better understand their experimental methodology;
- Explore the potential for collaborating with the industry, especially on more accurate lab emissions and/or field measurements.

The Yale study authors have positively responded to our request and we are in the process of scheduling a video conference with their research team. Based on the results of the two initial activities detailed above, the Coalition is also considering an industry-sponsored "field-study."

Media Response

NAPA, with assistance from our public relations firm, has developed a media inquiry response (available here) on behalf of the asphalt pavement industry. To date, NAPA has not received any media inquiries. Further, a mutual decision was made among the Coalition participants to refrain from publishing a statement or press release until the initial critical review is complete. For more information on NAPA's response, or decision to not issue a public statement or press release currently, please contact Howard Marks. We encourage you to refer media requests to Monica Dutcher, Editorial Director at NAPA. If you are contacted by a representative from a state environmental agency, academia, local municipality, or state department of transportation, we encourage you to notify Howard Marks, who will coordinate all state requests with the appropriate SAPA.

As NAPA and its partners continue to review the specifics of Yale's study, it is likely our industry statement will evolve, and the Coalition will consider issuing an official statement to media in the future.

Concluding Remarks

There is little doubt about asphalt pavements' sustainable attributes; we know asphalt offers the most environmental benefits of any pavement type. Asphalt pavements are completely recyclable — the most recycled material in America. Asphalt's smooth surface means vehicles use less fuel when driving compared to other pavement types. A specialized mixture, porous asphalt, reduces pavement surface temperatures and improves stormwater runoff quality. And, in 2019, use of reclaimed asphalt pavement saved over two million metric tons of CO_{2e}, the equivalent of removing over half a million cars from the road. While we are confident in asphalt pavements' attributes, NAPA remains committed to robust science, collaborating on research, and reviewing and responding to reports of environmental impacts.

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