

**Solicitation of Letters of Interest for Project 11-09/Topic 2:
Develop a Summary Report on Potential Impacts of Tire Anti-
Degradants 6PPD and 6PPD-Quinone at Airports**

October 2024

The Airport Cooperative Research Program (ACRP) is soliciting letters of interest from researchers to produce a summary report, known as an ACRP *First Look*, on tire anti-degradants 6PPD and 6PPS-quinone (6PPD-q) and their potential impacts on airports.

ACRP is a contract research program that develops near-term, practical solutions to problems facing airport-operating agencies. ACRP is sponsored by the Federal Aviation Administration (FAA) and managed by the National Academies of Sciences, Engineering, and Medicine, through the Transportation Research Board. Program oversight and governance are provided by representatives of airport operating agencies and others appointed to the ACRP Oversight Committee (AOC) by the U.S. Secretary of Transportation.

The AOC recognizes that some topics evolve so quickly that an initial research report may not be timely in providing actionable information. ACRP can fill this knowledge gap by providing a common understanding of this quickly emerging area and the implication for and importance to the airport industry through the development of a white paper. The white paper will frame the issue and provide context for the industry within 6 months.

Attention has focused on 6PPD and its formation product 6PPD-q since it has been linked to the mortality of select fish species in North American streams. 6PPD is an anti-degradant added to tires to prevent them from breaking down and helping them last longer. However, through the life of the tire, friction causes tire wear particles to be released into the environment. The 6PPD and 6PPD-q included in these tire wear particles is released to the

atmosphere and to roadways, where they enter bodies of water through surface runoff. Attention to the occurrence, fate, and transport of 6PPD and 6PPD-q to date has primarily focused on roadway impacts from cars and trucks. However, as these tire anti-degradants also are added to aircraft tires and the tires of ground service equipment that operate at airports, these anti-degradants are expected to be present in stormwater runoff from airports. Furthermore, rubber from tires has frequently been identified in foreign object debris collected from impervious surfaces at airports such as runways, taxiways, and aprons. Yet, there has been little focus on the prevalence and impacts of 6PPD and 6PPD-q and its sources at airports. The U.S. Environmental Protection Agency is currently developing a testing method for 6PPD-q, and regulations are anticipated in the near term, which could impact the management of stormwater and other media at airports. However, the scale of the potential impacts, technical challenges, and research needs that airport managers may face in monitoring and responding to 6PPD and 6PPD-q have not been fully explored. This *First Look* will provide an overview of anti-tire degradants and their nexus with airports, including issues, potential challenges and opportunities, regulatory and legal context, and future needed research.

Expression of interest should include a cover letter and a resume/CV, describing your knowledge of the topic and a list of work accomplished in the subject area. The deadline for letters of interest is November 21, 2024. The topic panel, consisting of subject matter experts, will be meeting in December to select a contractor.

The contract duration is 6 months and includes the following deliverables:

- Annotated outline of the report due 2 weeks after Notice to Proceed.
- Draft Final Report due within 4 months.
- Final Report and response to panel comments due within 6 months.

The budget for this effort is a fixed-price of \$50,000.

Submit letters of interest electronically via the link below no later than 5:00 pm (ET) November 21, 2024:

<https://www.dropbox.com/request/mQz1bv8tg7b0MU9aa8t8>

Additional inquiries can be made to:

Joe Navarrete
Senior Program Officer
Airport Cooperative Research Program
Transportation Research Board
National Academies of Sciences, Engineering, and
Medicine
202/334-1649
jnavarrete@nas.edu