



Maryland

Department of the Environment

Larry Hogan, Governor
Boyd K. Rutherford, Lt. Governor
Ben Grumbles, Secretary
Horacio Tablada, Deputy Secretary

September 13, 2021

Montgomery County Council
Stella B. Werner Office Building
100 Maryland Avenue
Rockville, Maryland 20850

Dear Councilmembers:

Thank you for your recent letter requesting lead monitoring equipment for the Montgomery County Airpark to assess ambient lead concentrations and the impact on surrounding neighborhood communities.

In 2017, with the EPA's approval, the Department discontinued the one remaining lead monitoring site in Maryland due to levels consistently below the analytical method's detection limit. The Department no longer has the capability to conduct lead monitoring. A list of potential contractors is enclosed if the Council would like to hire a private company to purchase equipment or to perform lead monitoring at the Airpark. The Department would be happy to assist in review of any proposals if the Council wishes to proceed with such an action. I have also provided additional background information on this issue below, that may be useful to the Council as this issue is further discussed.

When the National Ambient Air Quality Standard (NAAQS) for lead was last revised in 2008, the Environmental Protection Agency (EPA) substantially strengthened this standard by an order of magnitude, revising the level downward from 1.5 micrograms per cubic meter ($\mu\text{g}/\text{m}^3$), to 0.15 $\mu\text{g}/\text{m}^3$. The EPA also required that state air quality agencies measure the maximum lead concentration at each airport source that emits 1.0 ton or more per year based on either the most recent National Emission Inventory (NEI) or other scientifically justifiable methods and data (such as improved emissions factors or site-specific data) taking into account logistics and the potential for population exposure. There were no airports in Maryland that exceeded this threshold. The most recent NEI reported emissions for the Montgomery County Airpark was 0.125 tons/year for 2017.

In addition to the above, the EPA required that some state air quality agencies conduct a one-year lead monitoring study at fifteen airports that had estimated lead emissions between 0.5 and 1.0 ton per year in an effort to better understand how these emissions affect the air at and near airports. Airports for this one-year monitoring study were selected based on factors such as the level of piston-engine aircraft activity and the predominant use of one runway due to wind patterns, to help evaluate airport characteristics that could lead to ambient lead concentrations that approach or exceed the lead NAAQS. There was no airport in Maryland that made the list. Upon completion of the one-year study, only two airports exceeded the lead NAAQS with measured levels at 0.33 ug/m³ and 0.17 ug/m³, and monitoring continued at those locations.

In February 2020, the EPA issued a technical update on two reports regarding the impacts of lead emissions from piston-engine aircraft on air quality near U.S. airports. The following is an excerpt from this document:

"EPA's modeling and monitoring data indicate that lead concentrations at and near airports are typically well below the National Ambient Air Quality Standard for lead (lead NAAQS). Among the more active airports in the United States, there are a few where lead concentrations may be above the lead NAAQS, in very close proximity to where aircraft conduct pre-fight engine checks. For the vast majority of airports, these small areas with lead concentrations potentially above the air standard are within the fence line of the airport and not accessible to the public, in all but a few instances. Lead levels dissipate quickly with distance from piston-engine aircraft exhaust. Thus, within 50 meters of the high concentration area, lead levels were uniformly below the lead air standard."

The reports summarized in the technical update document can be found here:

<https://www.epa.gov/regulations-emissions-vehicles-and-engines/epas-data-and-analysis-pistonengine-aircraft-emissions>.

Should you have any questions or require further information, please contact David Krask, Manager of the Air Monitoring Program, at 410-537-3756 or by email at david.krask@maryland.gov.

Sincerely,



George S. (Tad) Aburn, Jr., Director
Air and Radiation Administration

Enclosure: Listing of Consultants and Industrial Hygiene Firms