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We submit these comments on behalf of Alaska Community Action on Toxics (ACAT), a statewide non-profit environmental health and justice research and advocacy organization based in Anchorage whose mission is to ensure clean air, water, and toxic-free food for everyone. These short comments supplement those submitted on our behalf by Earthjustice, representing Alaska Community Action on Toxics, Center for Environmental Health, Friends of the Earth, and Oregon Aviation Watch. We support EPA's Proposed Endangerment Finding and urge swift action by the Agency toward the elimination of lead emissions from piston engine aircraft and on lead in aviation gas.

As stated in the letter submitted on our behalf by Earthjustice: Petitioner Alaska Community Action on Toxics ("ACAT") is a 501(c)(3) non-profit public interest environmental health and justice research and advocacy organization, incorporated and headquartered in Anchorage, Alaska. ACAT assists individuals, tribes, and communities to implement effective strategies to prevent or reduce their exposures to toxic substances, protect the ecosystems that sustain them, and hold accountable those responsible for the contamination of their communities. ACAT serves individuals around Alaska, where the vast majority of communities are not accessible by roads and where piston-engine aircraft are used for vital transportation of goods and services. Alaska has hundreds of airports, and over 10,000 planes—approximately 96% of the commercial fleet—registered in Alaska are piston-engine aircraft that use leaded avgas.[1]

Many of ACAT's constituents are Alaska Natives, who EPA found make up nearly half the population living within 500 meters of one of the hundreds of Alaska airports, despite constituting only 15% of the state population. ACAT has a strong interest in protecting its constituents by eliminating exposures to lead from piston-engine aircraft emissions. In addition to exposures from piston-engine aircraft emissions, Alaska Natives and other Alaska residents may also be exposed to multiple sources of lead including large-scale metals mining, consumption of subsistence animals hunted with lead ammunition, fish contaminated with leaded fishing weights, lead from paint in older homes, and drinking water sources. These additional exposures to lead add to the cumulative adverse effects of lead exposure from avgas experienced by Alaska Natives and other Alaska residents.

[1] Elwood Brehmer, *Industry Offers Avgas Alternatives, FAA Targets 2018 Use*, Alaska J. of Comm. (July 16, 2014), https://www.alaskajournal.com/business-and-finance/2014-07-16/industry-offers-avgas-alternatives-faa-targets-2018-use.

Lead has been detected in the air and soil around Merrill Field in Anchorage, Alaska. Data collected from an air quality station near one of the runways between 2011-2012 showed that lead levels ranged from 0.001 to about 0.115 parts per billion (ppb) on any given day depending on the number of flights on the runway (EPA, 2015). This is far from a comprehensive assessment and additional monitoring is necessary here as well as at airports throughout the state.

Alaska Community Actions on Toxics (ACAT) conducted a very preliminary investigation of lead levels in the topsoil of gardens, parks, and schools within approximately one mile from Merrill Field in Anchorage. ACAT detected levels of lead in the soil of vegetable gardens, parks, and schools that averaged between 5.3 and 22.9 ppm (Figure 1). Furthermore, there was variation in the samples collected at each site, with lead levels ranging from 5.1 to 66.9 ppm and the highest lead levels detected southwest of the runway (Figure 2). Children should be able to play in parks and school playgrounds, and eat vegetables from gardens, without parents fearing that their children will be poisoned with lead. Lead poisoning is the most preventable environmental disease of young children, but effort must be put towards removing all sources of lead, so children are not exposed (CDC, 2022). Although we cannot definitively conclude that the source of lead we detected in soils derives from avgas combustion at Merrill Field, there is cause for concern that should be further investigated.

In the United States, the use of leaded gasoline in automobiles was finally banned in 1996. The banning of leaded fuels used in vehicles eventually resulted in a 98% decrease in the total atmospheric lead level (Kessler, 2013). There is no compelling reason why avgas can't follow a similar trajectory by phasing out lead use.

Today, the U.S. is in a promising position to phase out and ban lead in avgas—in fact this is critical and long overdue. There are several viable unleaded avgas alternatives that are both safe and effective and will work in most small single and twin piston aircrafts. For example, General Aviation Modifications, Inc (GAMI)'s G100UI high-octane unleaded fuel was recently approved for use by the FAA for the US's fleet of small piston airplanes (Cabrera, 2022). Alternative, small aircraft engines exist that work safely and effectively with unleaded avgas, such as Continentals 360 Series AvGas Engine, that can be fitted into aircrafts (Continental, n.d.).

Lead in gasoline was recognized as a health hazard and an endangerment to the public health and actions were taken toward phasing out and ultimately banning lead in gasoline used in automobile engines. These same steps can and must be followed to remove lead from avgas in the US. Therefore, the EPA must rule that lead in avgas endangers the public health and welfare in the US. Only then can lead use in avgas be phased out and banned to protect the health and well-being of people in the US especially the most vulnerable, our children and future generations to come.

Respectfully (comments prepared by):

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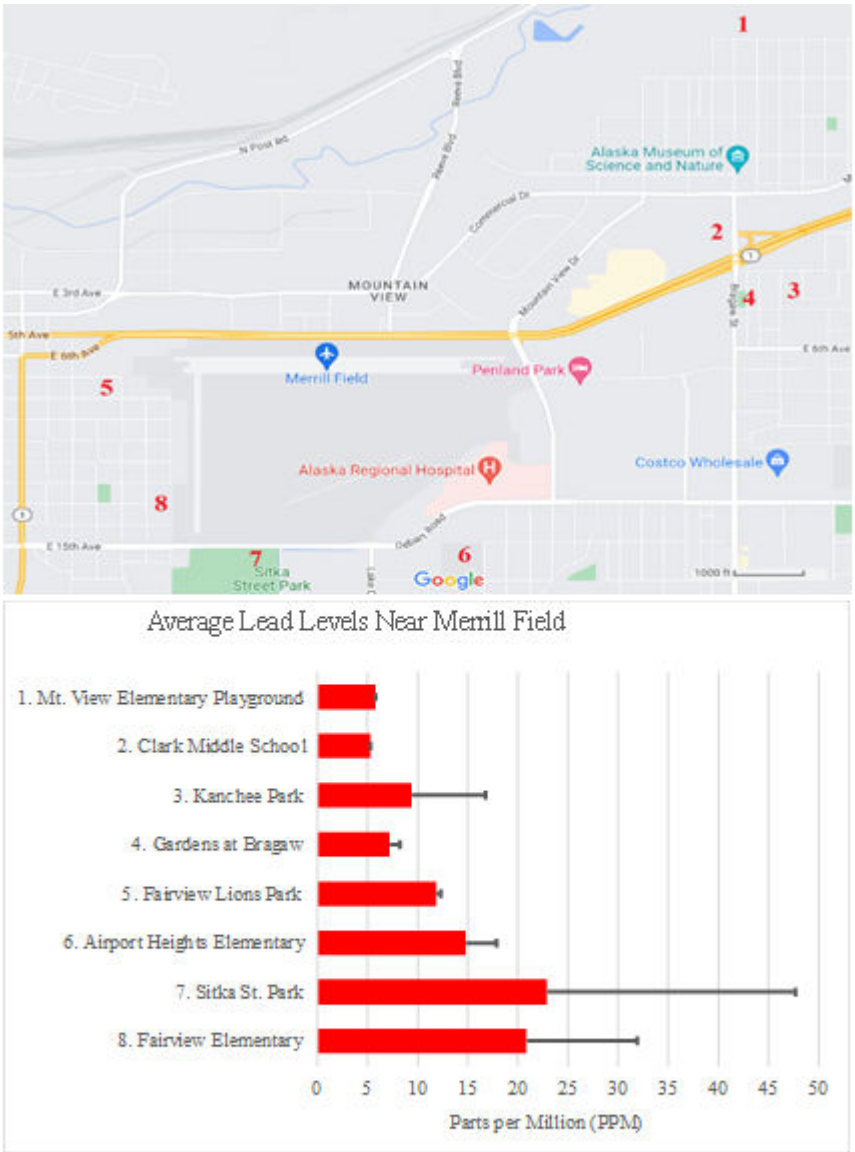

Figure 1. Lead was detected in soil around Merrill Field airport. The map shows the location of the sampling sites near the airport. The red numbers correspond to the locations in the bar chart where soil samples were collected. Lead was detected in topsoil samples obtained around Merrill Field Airport. Samples were collected on all sides approximately ½ to 1-mile from the airport in gardens, parks, and schools. N = 1 - 5. Bars are +/- SD.

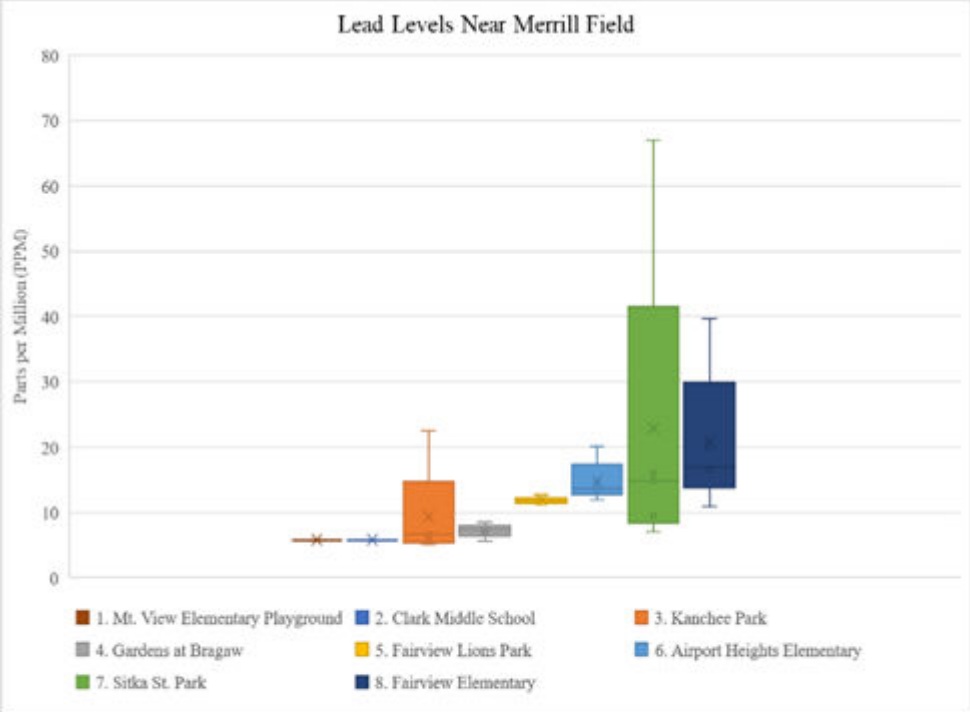

Figure 2. Lead levels detected around Merrill Field. Box plots of the collected soil samples at locations near Merrill Field contain lead. Lead was detected in topsoil samples obtained around Merrill Field Airport. The highest lead levels were detected SW of the main runway.

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