

County of Santa Clara

Office of the County Executive

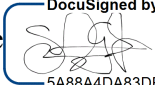
County Government Center, East Wing
70 West Hedding Street
San Jose, California 95110



DATE: December 1, 2022

TO: Board of Supervisors
Jeffrey V. Smith, M.D., J.D., County Executive

FROM: Sylvia Gallegos, Deputy County Executive

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RE: County Efforts Relating to the Environmental Protection Agency and
Childhood Lead

At the November 1, 2022 Board meeting (Item No. 22), under the Consent Calendar, Supervisor Chavez requested that the Administration report to the Board with further information on a previous referral, Item No. 17 of the September 27, 2022 Board meeting, relating to efforts to collaborate with the Environmental Protection Agency regarding a lower threshold of concern for blood lead levels in children. This report responds to that request for information.

Multiple federal and state agencies are involved in efforts to monitor and reduce exposure to airborne lead and have different roles, including:

- **Environmental Protection Agency (EPA)**, which has authority to establish standards for vehicle and aircraft emissions to improve and maintain air quality;
- **Federal Aviation Administration (FAA)**, which has authority to approve fuels for use in aircraft, and is required to consult with the EPA in the establishment of aircraft emission standards;
- **Centers for Disease Control and Prevention (CDC)**, which periodically reviews and revises advisory Blood Lead Reference Values (BLRV) at the federal level; and
- **California Department of Public Health (CDPH)**, which establishes BLRV and reporting requirements at the state level.

The County has been engaged in efforts, described below, to advocate for ceasing use of leaded aviation fuel (avgas) and for the revision of air quality standards relating to lead.

Regulation of Lead Air Pollution

The EPA is required by the Clean Air Act (CAA) to issue emission standards applicable to the emission of any air pollutant that may reasonably be anticipated to endanger public health or welfare, including emissions from aircraft fueled with avgas. To do so, the EPA must first make

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an "endangerment finding" with respect to the pollutant.

Endangerment findings are made using the federal rulemaking process. That process involves the following stages:

- a. Rule Development, where agency may develop proposals based on petitions, Presidential directives, Congressional recommendations, etc.
 - The EPA publishes intended regulatory agenda in the Unified Agenda, published on the website for the Office of Information and Regulatory Affairs.
- b. Rulemaking
 - Notice of Proposed Rulemaking (published in Federal Register) announces and explains the agency's plan to address the problem or accomplish a goal.
 - A Public Comment Period on the proposed rule is specified within the Notice of Proposed Rulemaking (NPRM).
 - Extension or Re-opening of Public Comment, where additional time is necessary or where comments raise issues that were not discussed in the original proposal. As new issues arise, the EPA may publish a series of proposed rules.
- c. The Final Rule
 - Upon completion of notice-and-comment, the EPA may issue a final endangerment finding.

County Advocacy for Increased Regulation of Leaded Aviation Emissions

In August 2021, the County joined the Alaska Community Action on Toxics, the Center for Environmental Health, the Friends of the Earth, the Montgomery-Gibbs Environmental Coalition, and Oregon Aviation Watch in a petition to the EPA to make an endangerment finding under section 231 of the CAA that leaded aviation gasoline contributes to air pollution that harms public health and welfare.

In January 2022, the EPA announced its intent to issue an endangerment finding, and on October 17, 2022, it issued a Notice of Proposed Rulemaking (NPRM). The NPRM specifies that a public comment period relating to the endangerment finding would remain open until January 17, 2023.

On November 1, 2022, the EPA held a public hearing to receive comments relating to its proposed endangerment finding. County representatives, numerous community members in the vicinity of Reid-Hillview Airport, and like-minded partners were in attendance and provided

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testimony related to the County's study of the impact of lead emissions on blood lead levels of children living in the vicinity of Reid-Hillview Airport. The County will also be providing a comprehensive written comment to the proposed endangerment finding.

In addition to proceedings of the EPA, the County also participated in the House Committee on Oversight and Reform Subcommittee on Environment's Hearing on Health and Environmental Dangers of Leaded Aviation Fuel, at which Supervisor Chavez gave testimony. At that hearing, Dr. Bruce Lanphear, a physician and pediatric epidemiologist specializing in environmental exposures including lead and other toxic chemicals, and who was a member of the workgroup on blood lead reference values described below, provided testimony as part of the County's delegation.

The County also executed an agreement with Dr. Sammy Zahran and Dr. Lanphear to submit the Airborne Lead Study to a peer-reviewed scientific journal, and a version of the Study will be published soon in the Proceedings of the National Academy of Sciences, which is the leading peer-reviewed scientific journal in the United States.

Revision of Blood Lead Reference Value for Children

The CDC's Blood Lead Reference Value (BLRV) is a screening tool to identify children who have higher levels of lead in their blood compared with most children. The reference value is not a health-based toxicity threshold and is not a regulatory standard or an action level in most states or localities.

States independently determine action thresholds based on state laws, regulations, and resource availability. The CDC's BLRV (and the respective state BLRV) is used as a guide to (1) help determine whether medical or environmental follow-up actions should be initiated for an individual child, and (2) prioritize communities with the most need for primary prevention of exposure and evaluate the effectiveness of prevention efforts.

Current CDC Blood Lead Reference Value

A Blood Lead Reference Value Workgroup (Workgroup) was established in March of 2020 under the CDC's Lead Exposure Prevention Advisory Committee. At that time, the CDC's BLRV was 5 µg/dL. The Workgroup was comprised of experts in the fields of toxicology, pediatrics, lead screening, lead exposure prevention, analytical chemistry, and public health surveillance. Dr. Lanphear who is a partner with the County in its efforts to advocate for the reduction of exposure pathways for lead, including in providing advocacy at the abovementioned Congressional hearing, was a member of the Workgroup.

In August 2021, the Workgroup recommended that the CDC revise the BLRV from 5 µg/dL to 3.5 µg/dL, which was derived from NHANES data from the 2015-2016 and 2017-2018 cycles. The Lead Exposure and Prevention Advisory Committee unanimously voted in favor of recommending that the CDC lower the BLRV to 3.5 µg/dL, and the CDC lowered the BLRV accordingly in October 2021.

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California's Blood Lead Reference Value

As noted above, the BLRV for the State of California is set by the CDPH, and until the CDC's action to lower the threshold, California's BLRV was 4.5 µg/dL. In May 2022, the CDPH announced plans to adopt the new CDC BLRV of 3.5 µg/dL, pending the procurement of resources for implementation. In the meantime, CDPH recommends that healthcare providers in California use the CDC's BLRV to identify children needing further testing and follow-up.

Background

The Centers for Disease Control and Prevention (CDC) first defined the threshold for childhood lead poisoning in the 1960s as any amount in blood ≥ 60 micrograms per deciliter (µg/dL). Over the years, with further scientific research and understanding of the impact of lead exposure even without clinical symptoms and the development of testing equipment that could test for lower levels of blood lead, the CDC's threshold has been incrementally lowered.

In 2010, the CDC's Advisory Committee on Childhood Lead Poisoning Prevention (ACCLPP) recommended establishing a new "blood lead reference value" of 5 µg/dL as the standard for identifying children with elevated blood lead levels and recommended that the BLRV be reevaluated every four years with data from the most recent childhood population-based blood lead surveys. In 2012, CDC leadership announced acceptance of the ACCLPP's recommendations. Every four years, the CDC re-analyzes blood lead data from the most recent two National Health and Nutritional Examination Survey (NHANES) cycles to determine whether the BLRV should be updated. The NHANES is a complex, multistage survey designed to provide a nationally representative assessment of health and nutritional status of children and adults.

In 2017, the National Center for Environmental Health/Agency for Toxic Substance and Disease Registry Board of Scientific Counselors Lead Poisoning Prevention Subcommittee made the recommendation to lower the BLRV from 5 µg/dL to 3.5 µg/dL based on NHANES data. At that time, however, no further action was taken by the CDC until last year.

c: Chiefs of Staff
Greta Hansen, Chief Operating Officer
James Williams, County Counsel
Tiffany Lennear, Clerk of the Board of Supervisors
René Santiago, Director, Santa Clara Valley Health & Hospital System