



January 31, 2022

Via email

Mark A. McClardy
Director, Airports Division
Western-Pacific Region
Federal Aviation Administration
U.S. Department of Transportation
mark.mcclardy@faa.gov

Re: Notice of Informal Investigation to Santa Clara County dated December 22, 2021

Dear Mr. McClardy:

I write on behalf of the Natural Resources Defense Council (NRDC) regarding the Federal Aviation Administration's (FAA's) December 22, 2021 Notice of Informal Investigation under 14 C.F.R. § 13.1 to Santa Clara County. We stand with Santa Clara County in disputing the FAA's allegations that the County violated federal law and its grant agreement in taking action to protect its residents from lead poisoning.

NRDC is an international, not-for-profit environmental and public-health group with more than three million members and online activists—including over 4,000 members in Santa Clara County and over 180 members in East San José—and a staff of more than 650 lawyers, scientists, and other professionals. NRDC's mission is to safeguard the Earth: its people, its plants and animals, and the natural systems on which all life depends. Consistent with this mission, NRDC works to enforce environmental laws, reduce air and water pollution, and protect the public and our members from health and environmental harm.

Residents Near Santa Clara County Airports are Exposed to Unacceptable Levels of Lead Contamination

NRDC joins community advocates in East San José in expressing deep concern over the impact that exposure to leaded fuel has had on the surrounding community, and particularly on vulnerable children. Lead exposure can have permanent and serious repercussions on an individual's health and has been recognized as a major public health concern by local, state, federal, and international agencies.

NRDC has substantial experience with the issue of lead exposure. It has provided scientific analyses and policy recommendations on eliminating lead contamination in drinking water on numerous occasions at the city, state, and federal level, and NRDC has partnered with community advocates in communities such as Flint, Michigan, Newark,

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New Jersey, and Pittsburgh, Pennsylvania to push for protections from high levels of lead in those cities' drinking water. NRDC has also commented on the topic of lead emissions from piston-engine aircraft specifically, detailing the harms of such emissions to public health and urging the U.S. Environmental Protection Agency (EPA) in 2010 to implement standards for controlling lead emissions from these aircraft.¹ Lead fuel used by piston-engine aircraft is the single largest source of U.S. lead air pollution.² Once lead is emitted into the air it can be inhaled directly or be ingested after settling into the soil and dust below.³

There is no safe level of lead exposure.⁴ Even small amounts of lead can cause serious and permanent health effects in children, including learning disabilities, behavioral disorders, and hypertension.⁵ Adult lead exposure can cause adverse cardiovascular effects and kidney disease.⁶ Chronic lead exposure is also associated with delayed pregnancy and decreased fertility.⁷ Once pregnant, mothers exposed to lead may experience increased risks of miscarriage and premature labor,⁸ and may pass lead to the fetus, interfering with brain development.⁹

For years, residents living near the County airports have been concerned about lead contamination from the airports and have called for community protections. The lead study authored by the Mountain Data Group and released August 2021 confirms the community's fears— that the Reid-Hillview airport is associated with elevated blood lead levels in

¹ Letter from Avinash Kar, Attorney, NRDC, and Miriam Rotkin-Ellman, M.P.H., Scientist, NRDC, to U.S. EPA (Aug. 27, 2010), https://downloads.regulations.gov/EPA-HQ-OAR-2007-0294-0414/attachment_1.pdf.

² Aviation Gasoline, FAA, <https://www.faa.gov/about/initiatives/avgas/>; President's Task Force on Environmental Health Risks and Safety Risks to Children, *Federal Action Plan to Reduce Childhood Lead Exposures and Associated Health Impacts* 10 (2018), https://www.epa.gov/sites/default/files/2018-12/documents/fedactionplan_lead_final.pdf.

³ Marie Lynn Miranda et al., *A Geospatial Analysis of the Effects of Aviation Gasoline on Childhood Blood Lead Levels*, 119 *Env't Health Persp.* 1513, 1513 (2011), <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3230438/pdf/ehp.1003231.pdf>.

⁴ Sammy Zahran et al., *The Effect of Leaded Aviation Gasoline on Blood Lead in Children*, 2 *J. Ass'n Env't & Res. Econ.* 575, 579 (2017), https://www.researchgate.net/publication/316072809_The_Effect_of_Leaded_Aviation_Gasoline_on_Blood_Lead_in_Children.

⁵ *Id.* at 575-76, 605; Nat'l Toxicology Program, U.S. Dep't of Health & Hum. Servs., *NTP Monograph: Health Effects of Low-Level Lead* xviii, xxi (2012), https://ntp.niehs.nih.gov/ntp/ohat/lead/final/monographhealtheffectslowlevellead_newissn_508.pdf.

⁶ *NTP Monograph, supra* n. 8, at xviii, xxii-xxiii.

⁷ *Id.* at xxiv.

⁸ *Id.*; Victor H. Borja-Aburto et al., *Blood Lead Levels Measured Prospectively and Risk of Spontaneous Abortion*, 150 *Am. J. Epidemiology* 590, 593-97 (1999), <https://academic.oup.com/aje/article-pdf/150/6/590/218866/150-6-590.pdf>.

⁹ Borja-Aburto et al., *supra* n.11, at 590; Philip J. Landrigan, *The Worldwide Problem of Lead in Petrol*, 80 *Bull. World Health Org.* 768, 768 (2002), <https://scielosp.org/pdf/bwho/v80n10/8010a02.pdf>.

children living nearby, independent of other lead exposure pathways.¹⁰ The August 2021 study found that children living within a half-mile radius of the airport and children living East of the airport (downwind) are particularly at risk. Specifically, for children living within half a mile of the airport, an increase from the minimum to maximum exposure of piston-engine airplane traffic “is associated with an estimated 0.83 µg/dL increase” in blood lead levels as compared to similarly situated children living farther (0.5 to 1.5 miles) from the airport, all else held equal.¹¹ For comparison, children living in Flint, Michigan experienced a 0.35-0.45 µg/dL increase in blood lead levels at the height of the drinking water crisis there.¹²

This is no small population. The 1.5-mile area surrounding the Reid-Hillview airport is home to approximately 52,000 residents, including about 12,800 children, and 21 schools and childcare centers.¹³ As reported by the County, 61% of residents living within 1.5 miles of the airport identify as Hispanic/Latino and 79% report that they speak a primary language other than English at home.¹⁴ For years these residents have been uniquely burdened by environmental and socioeconomic harms, including pollution, chronic disease, and economic immobility.¹⁵

The findings of the August 2021 study on the Reid-Hillview airport were consistent with previous studies on other airports. A 2011 study on 66 airports in North Carolina also found a strong correlation between child blood level levels and airport proximity.¹⁶ A 2017 study on 448 airports in Michigan found that child blood levels increased dose-responsively in proximity to airport, declined among children sampled during a downturn in piston engine aircraft traffic, and increased dose-responsively in the flow of piston-engine traffic

¹⁰ Mountain Data Group, *Leaded Aviation Gasoline Exposure Risk at Reid-Hillview Airport in Santa Clara County, California* at xiv, xv, xvi, xviii (2021), <https://www.sccgov.org/sites/opa/newsroom/Documents/RHV-Airborne-Lead-Study-Report.pdf>.

¹¹ *Id.* at xviii, 60.

¹² Specifically, researchers found that “the switch in water source in Flint caused child [blood lead levels] to increase by about 0.35 to 0.45 µg/dL from a pre-crisis baseline of about 2.3 µg/dL.” *Id.* at 37 n.11 (citing Sammy Zahran et al., *Four Phases of the Flint Water Crisis: Evidence from Blood Lead Levels in Children*, 157 *Env’t Rsch.* 160 (2017)).

¹³ Memorandum from Jeffrey V. Smith, County Executive, and Sylvia Gallegos, Deputy County Executive, to Board of Supervisors at 1 (Aug. 17, 2021), <http://sccgov.iqm2.com/Citizens/FileOpen.aspx?Type=30&ID=164579&MeetingID=13226>.

¹⁴ *Id.* at 6, 10.

¹⁵ *Id.* at 6-14; see also Farida Jhabvala Romero, ‘In the Heart of the Pandemic’: COVID-19 Deaths Loom Large in East San Jose, KQED (Feb. 26, 2021), <https://www.kqed.org/news/11862305/in-the-heart-of-the-pandemic-covid-19-deaths-loom-large-in-east-san-jose>.

¹⁶ Marie Lynn Miranda et al., *A Geospatial Analysis of the Effects of Aviation Gasoline on Childhood Blood Lead Levels*, 119 *Env’t Health Persp.* 1513, 1513 (2011), <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3230438/pdf/ehp.1003231.pdf>.

across a subset of airports.¹⁷ NRDC is not aware of any study contradicting the conclusion of that for children living near airports, piston-engine traffic is correlated with an increase in blood lead levels. Given the lack of contrary evidence, FAA should presume that the use of leaded fuel by the piston-engine aircraft at the San Martin airport is also correlated with increased blood lead levels in children, as it has been shown in the studies on the North Carolina, Michigan, and Reid-Hillview airports. It would be unreasonable for the FAA to conclude, without any justification, that the children living near the San Martin airport are the exception.

Santa Clara County Has Not Violated Any Federal Laws or Grant Terms by Reducing Lead Exposure From Its Airports

NRDC agrees with the County that the list of issues under investigation by the FAA pertaining to leaded fuel at the airports are based on misapprehensions of fact and misinterpretations of law. The first four issues that the FAA lists as under investigation are predicated on the assumption that the County has banned the “sale and use” of leaded fuel. This is incorrect. The County has entered into permits and leases for its fuel tanks at County airports that prohibit the operators of those fuel tanks from using those tanks to store, sell or distribute leaded fuel. However, the County has not banned the use of leaded fuel at its airports, despite demands by residents. Aircraft that fly into County airports can refuel with leaded fuel elsewhere.

Only serious errors of law could lead the FAA to conclude that the County violated federal law or grant terms. The first issue under investigation is whether the County’s permits and leases for its fuel tanks (along with the County’s alleged, but non-existent, ban on the use of leaded fuel) violate Grant Assurance 22. This Grant Assurance requires airports to be made available for public use “on reasonable terms and without unjust discrimination to all types, kinds and classes of aeronautical activities.” This Grant Assurance further allows the airport sponsor to “establish such reasonable, and not unjustly discriminatory, conditions to be met by all users of the airport as may be necessary for the safe and efficient operation of the airport.” The focus of this Grant Assurance is on “reasonable” terms on “use” and preventing “unjust discrimination.” It does not pertain to the County’s authority to condition permits and leases for its own fuel tanks. This Grant Assurance also does not prohibit the County from imposing “reasonable” terms on the use of the airport, or even from discriminating against some aeronautical activities, provided that the County does not do so “unjustly.”

¹⁷ Sammy Zahran et al., *The Effect of Leaded Aviation Gasoline on Blood Lead in Children*, 2 J. Ass’n Env’t & Res. Econ. 575, 579 (2017), https://www.researchgate.net/publication/316072809_The_Effect_of_Leaded_Aviation_Gasoline_on_Blood_Lead_in_Children.

This Grant Assurance does not require the County to allow the operators of County-owned fuel tanks to use those tanks to distribute all types of aviation fuel. The Grant Assurance governs the *use* of the airport, but as clarified above, the County has not prohibited aircraft that fuel with leaded gas elsewhere from using the airport. The County's permits and leases for its fuel tanks are not restrictions on the use of the airport. But even assuming that the County's permits and leases are restrictions on the use of the airport, they are reasonable and not unjust. The County considered the severe and long-term negative impacts of lead pollution on its residents. It would be unreasonable and unjust for the County to disregard the permanent and serious harm to its residents. Because there is no safe level of lead exposure and because the use of leaded fuel at the airports is associated with increased lead exposure in children, it is reasonable and just for the County to manage its fuel tanks in the way the County decided. Moreover, under Grant Assurance 22(h), the County may impose conditions to ensure the "safe" operation of the airport, including the safety of all people affected by airport operations. The County has not banned the use of leaded fuel at the airport. However, under this grant provision, it would be permissible for the County to do so to reduce unsafe exposure to lead.

The second issue under investigation is whether the County's permits and leases for its fuel tanks violate 49 U.S.C. § 47107(a). This statutory provision concerns the duties of the Secretary of Transportation, not of any private entity. Thus, the County cannot violate this provision. To the extent that the FAA is alleging that the County represented to the FAA that the "airport will be available for public use on reasonable conditions and without unjust discrimination" but the County is violating that representation, that merely repackages the allegations in the first issue concerning Grant Assurance 22, and it fails for the same reasons.

The third issue under investigation is whether the County's permits and leases for its fuel tanks violate the commerce clause of the U.S. Constitution. The FAA does not explain anywhere in its letter how the commerce clause may be implicated by the County's permits and leases. The County is not discriminating against out-of-state aircraft. The FAA has not alleged otherwise.

The fourth and last issue under investigation concerning the County's permits and leases for its fuel tanks is whether they are precluded by 42 U.S.C. § 7573, which prohibits states and subdivisions of states from adopting or enforcing "any standard respecting emissions of any air pollutant from any aircraft or engine." The permits and leases issued by the County for the use of its fuel tanks are not an emissions standard or an attempt to enforce an emissions standard. The County has not set a maximum emissions rate. Aircraft that fly into the County airports can choose to fuel elsewhere and use any fuel available elsewhere. Thus, this statutory provision does not apply.

The FAA Must Act Aggressively to Protect the Public from Lead Contamination

The FAA states that it is endeavoring to build a “lead-free future,” but the FAA has been slow to approve the use of unleaded fuel for all piston-engine aircraft. Every day that the FAA delays is a day that the people living around airports are exposed to more lead. And there is no safe level of lead exposure. The FAA must act swiftly so that leaded aviation fuel is left in the past. The EPA recently stated its intention to propose finding that leaded aviation gasoline contributes to air pollution that harms public health and welfare.¹⁸ It expects to issue that proposed finding this year. Once EPA makes this finding, it will need to set new emissions standards on leaded aviation fuel. The logical and just course of action for the FAA now is to expedite its approval process for unleaded fuel for all piston-engine aircraft. In the meantime, the FAA should support the County in its reasonable efforts to protect its residents and close its informal investigation.

I am available to discuss any of these issues further, and my information is below.

Thank you for your consideration.

Sincerely,



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Cc: Eric Peterson, Director of County Airports, County of Santa Clara
Jeffrey V. Smith, County Executive
James R. Williams, County Counsel

¹⁸ Letter Michael S. Regan, Administrator, EPA to Jonathan J. Smith, Staff Attorney, Earthjustice (Jan. 12, 2022), <https://www.epa.gov/system/files/documents/2022-01/ltr-response-aircraft-lead-petitions-aug-oct-2022-01-12.pdf>