



**EARTHJUSTICE**

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ALASKA CALIFORNIA FLORIDA MID-PACIFIC NORTHEAST NORTHERN ROCKIES  
NORTHWEST ROCKY MOUNTAIN WASHINGTON, DC INTERNATIONAL

May 26, 2011

**Via Certified Mail**

Honorable Lisa P. Jackson  
Administrator  
U.S. Environmental Protection Agency  
Ariel Rios Building  
1200 Pennsylvania Avenue, NW  
Mail Code: 1101A  
Washington, DC 20460

Honorable Margo T. Oge  
Director, Office of Transportation and Air Quality  
U.S. Environmental Protection Agency  
Ariel Rios Building  
1200 Pennsylvania Avenue, NW  
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Washington, DC 20460

**Re: Notice of Intent to File Suit Under Clean Air Act Section 304 with Respect to Petition for Rulemaking to Find that Lead Emissions from General Aviation Aircraft Cause or Contribute to Air Pollution Which May Reasonably Be Anticipated to Endanger Public Health or Welfare**

Dear Administrator Jackson and Director Oge:

On behalf of Friends of the Earth (FOE), the Environmental Law and Justice Clinic at Golden Gate University School of Law and Earthjustice provide notice of FOE's intent to sue the United States Environmental Protection Agency (EPA) in federal court for failure to respond in a timely manner to FOE's petition for rulemaking, dated October 3, 2006<sup>1</sup> (the Petition), which requested, pursuant to Section 231 of the Clean Air Act, that EPA make a finding that lead emissions from general aviation aircraft that use leaded aviation gasoline (avgas) endanger public health or welfare and issue standards for such emissions. FOE is a public interest, not-for-profit advocacy organization that fights to defend the environment and to create a healthier and more just world.

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<sup>1</sup> FOE, Petition for Rulemaking Seeking the Regulation of Lead Emissions from General Aviation Aircraft Under § 231 of the Clean Air Act, Docket ID No. EPA-HQ-OAR-2007-0294-0003 (Oct. 3, 2006) [hereinafter *2006 Petition*].

Section 304 of the Clean Air Act, 42 U.S.C. § 7604, grants any person the authority to commence a civil action against the EPA Administrator for agency action unreasonably delayed. Any person intending to file a legal action against the Administrator for unreasonable delay must provide notice of his or her intention to sue 180 days before commencing such action. 42 U.S.C. § 7604; *see* 40 C.F.R. Part 54.

Despite the fact that EPA has long possessed sufficient information about the risks associated with lead emissions from avgas, the Agency has failed to make the required endangerment finding or to issue lead emissions standards and has failed to respond to FOE's Petition, in violation of the Clean Air Act and the Administrative Procedure Act (APA). Given the overwhelming evidence demonstrating that aircraft lead emissions cause and contribute to air pollution and EPA's long-standing recognition of the grave health effects caused by human lead exposure, EPA has a duty to regulate such emissions without further delay.

### **I. EPA's Authority to Regulate Aircraft Lead Emissions**

The Clean Air Act authorizes EPA to regulate lead emissions from aircraft. Section 231 of the Clean Air Act, 42 U.S.C. § 7571, requires EPA to regulate certain air pollutants emitted by aircraft engines. If EPA finds that lead emissions from aircraft engines using avgas cause or contribute to air pollution and that such air pollution "may reasonably be anticipated to endanger public health or welfare," it is required to prescribe standards to control such emissions. 42 U.S.C. § 7571(a)(2), (3).<sup>2</sup>

### **II. EPA Has Recognized that Lead Air Pollution May Reasonably Be Anticipated to Endanger Public Health or Welfare**

For decades, EPA has possessed ample evidence that lead air pollution "may reasonably be anticipated" to endanger public health or welfare. For instance, EPA's website includes a "Hazard Summary" for lead that states:

Lead is a very toxic element, causing a variety of effects at low dose levels. Brain damage, kidney damage, and gastrointestinal distress are seen from acute (short-term) exposure to high levels of lead in humans. Chronic (long-term) exposure to lead in humans results in effects on the blood, central nervous system (CNS), blood pressure, kidneys, and Vitamin D metabolism. Children are particularly sensitive to the chronic effects of lead, with slowed cognitive development, reduced growth and other effects reported. Reproductive effects, such as decreased sperm count in men and spontaneous abortions in women, have been associated with high lead exposure. The developing fetus is at particular risk from maternal

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<sup>2</sup> When prescribing emission standards under Section 231, EPA must consult with the Federal Aviation Administration and "shall not change the aircraft engine emission standards if such change would significantly increase noise and adversely affect safety." 42 U.S.C. § 7571(a)(2)(B).

lead exposure, with low birth weight and slowed postnatal neurobehavioral development noted . . . .<sup>3</sup>

Significantly, though the evidence of the harmful effects of lead emissions is ample, the Clean Air Act does not require proof of actual harm in order for EPA to make an endangerment finding.<sup>4</sup> Congress directed that the regulatory action taken pursuant to an endangerment finding would be designed to “precede, and, optimally, prevent, the perceived threat.”<sup>5</sup> EPA is supposed to act where there is “a significant risk of harm.”<sup>6</sup>

As early as 1973, EPA found that lead emissions presented a significant risk of harm to the health of urban populations, especially the health of children.<sup>7</sup> EPA listed lead as a criteria pollutant under the Clean Air Act in 1976, finding that “lead was an air pollutant which, in the Administrator’s judgment, has an adverse effect on public health or welfare.”<sup>8</sup> Given its recognition of these significant health risks, EPA established a phase-out of lead in motor vehicle gasoline and, ultimately, prohibited the sale of any such gasoline containing lead.<sup>9</sup> While EPA has found endangerment and taken additional steps to regulate lead emissions from industrial and other sources, the Agency has failed to propose any emissions standards for lead pollution from avgas—despite the fact that it has indicated that it expects lead from avgas to be absorbed in the same manner as lead from motor vehicle gasoline.<sup>10</sup>

The human health effects of lead exposure, which EPA indicates include “a broad array of deleterious effects on multiple organ systems among children and adults,”<sup>11</sup> are well-established and have been long-recognized by EPA. Indeed, EPA maintains that “there is no known threshold for lead,”<sup>12</sup> and recently has decreased the level of the primary and secondary National Ambient Air Quality Standards (NAAQS) for lead in order to protect at-risk populations from “an array of adverse health effects, most notably neurological effects in children” and cardiovascular effects in adults.<sup>13</sup>

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<sup>3</sup> EPA, Lead Compounds: Hazard Summary, <http://www.epa.gov/ttn/atw/hlthef/lead.html> (last visited May 16, 2011).

<sup>4</sup> See *Ethyl Corp. v. EPA*, 541 F.2d 1, 12 (D.C. Cir. 1976).

<sup>5</sup> *Id.* at 13.

<sup>6</sup> *Id.* at 12–13.

<sup>7</sup> See Control of Lead Additives in Gasoline, 38 Fed. Reg. 33,734 (Dec. 6, 1973).

<sup>8</sup> Advance Notice of Proposed Rulemaking on Lead Emissions From Piston-Engine Aircraft Using Leaded Aviation Gasoline, 75 Fed. Reg. 22,440, 22,444 (Apr. 2, 2010) [hereinafter *ANPR*].

<sup>9</sup> See Prohibition of Gasoline Containing Lead or Lead Additives for Highway Use, 61 Fed. Reg. 3832 (Feb. 2, 1996).

<sup>10</sup> See *ANPR* at 22,442.

<sup>11</sup> *Id.* at 22,445.

<sup>12</sup> Lead; Identification of Dangerous Levels of Lead, 66 Fed. Reg. 1206, 1216 (Jan. 4, 2001).

<sup>13</sup> *ANPR* at 22,441.

The risk of lead exposure to communities located in nonattainment areas and near general aviation airports where avgas-fueled aircraft are serviced is high. At least by 2002, EPA recognized that lead emissions from aviation gasoline could cause an increased risk to residents in the vicinity of general aviation airports.<sup>14</sup> As EPA stated, this potential risk is exacerbated by the fact that “[l]ead particles can remain airborne for some time following initial introduction into the atmosphere.”<sup>15</sup>

EPA has estimated that 16 million people reside and 3 million children attend school in close proximity to airport facilities at which lead emissions from aircraft engines are released.<sup>16</sup> The concentration of lead emissions threatens the health of all people living and working in the vicinity of such airports and poses a more serious and direct threat to the health of the millions of children who attend school under the flight paths of lead-emitting aircraft.

### **III. EPA Has Recognized that Aircraft Lead Emissions Contribute to Air Pollution**

The fact that lead emissions from avgas-fueled aircraft contribute to lead air pollution is also well-established. Under the Clean Air Act, the Administrator “need not find that emissions from any one sector or group of sources are the sole or even the major part of an air pollution problem” in order to find a contribution to air pollution.<sup>17</sup> “[T]he cause or contribute test is designed to authorize EPA to identify and then address what may well be many different sectors or groups of sources that are each part of the problem,” and the contribution need not be deemed significant.<sup>18</sup> Given EPA’s identification of emissions of lead from aircraft engines using leaded avgas as “the largest single source category for emissions of lead to air, comprising approximately half of the national inventory”<sup>19</sup> and being released at approximately 20,000 airports across the country,<sup>20</sup> these emissions—estimated at 779 tons in 2008<sup>21</sup>—easily meet the “cause or contribute” criterion.

In addition, EPA has designated sixteen nonattainment areas for lead—areas that violate NAAQS or contribute to the violation of those standards in a nearby area.<sup>22</sup> Each of these sixteen areas is in close proximity to one or more general aviation airports at which lead-

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<sup>14</sup> See EPA, *PBT National Action Plan For Alkyl-lead 14* (June 2002), available at [http://www.epa.gov/pbt/pubs/Alkyl\\_lead\\_action\\_plan\\_final.pdf](http://www.epa.gov/pbt/pubs/Alkyl_lead_action_plan_final.pdf) (last visited May 16, 2011) [hereinafter *Alkyl-lead Action Plan*].

<sup>15</sup> *Alkyl-lead Action Plan* at 14.

<sup>16</sup> ANPR at 22,442.

<sup>17</sup> *Id.* at 22,445.

<sup>18</sup> *Id.*

<sup>19</sup> *Id.* at 22,442.

<sup>20</sup> *Id.* at 22,440.

<sup>21</sup> *Id.* at 22,453.

<sup>22</sup> See Air Quality Designations for the 2008 Lead (Pb) National Ambient Air Quality Standards, 75 Fed. Reg. 71,033 (Nov. 22, 2010).

emitting aircraft take off and land. Lead emissions from these aircraft contribute to the regional lead air pollution that has resulted in the nonattainment designations.<sup>23</sup>

#### IV. Friends of the Earth's Actions and EPA's Unreasonable Delay

FOE (then the Bluewater Network) first raised the issue of endangerment of public health or welfare by avgas-caused lead air pollution in December 2003, over seven years ago. Given EPA's recognition of the fact that no safe threshold for lead exposure exists and given the high amounts of lead emissions generated by general aviation aircraft, FOE/Bluewater Network argued that EPA had a duty to make a Section 231 endangerment finding for avgas lead emissions.<sup>24</sup> Almost two years later, EPA responded, asserting that it had insufficient information to support an endangerment finding and arguing that the regulation of avgas would ground the current fleet of piston-engine aircraft given the lack of alternative fuels.<sup>25</sup> However, a large percentage of piston-engine aircraft now are certified to use unleaded fuels.<sup>26</sup>

Following another year of inaction by EPA, on October 3, 2006, FOE submitted a formal petition with the EPA Administrator, pursuant to APA Section 553(e), requesting that EPA make a finding that lead emissions from general aviation aircraft endanger public health and welfare and issue a proposed standard for lead emissions from general aviation aircraft pursuant to Section 231 of the Clean Air Act.<sup>27</sup> The Petition highlighted the abundance of evidence available to the EPA that demonstrates that lead emissions from aircraft using avgas contribute to lead air pollution that threaten public health and welfare, including evidence of the human health impacts of exposure to lead and of the potential avenues for exposure. The Petition also requested that "[i]f the Administrator believes that insufficient information exists to make an endangerment finding, that EPA commence a study and investigation of the health and environmental impacts of lead emissions from general aviation aircraft."<sup>28</sup>

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<sup>23</sup> See Letter from the Environmental Law and Justice Clinic at Golden Gate University School of Law, on behalf of FOE, to EPA, Docket ID No. EPA-HQ-OAR-2007-0294-0083 (Feb. 16, 2011).

<sup>24</sup> See Letter from the Environmental Law and Justice Clinic at Golden Gate University School of Law, on behalf of the Bluewater Network, to EPA, Docket ID No. EPA-HQ-OAR-2002-0030-0106 (Dec. 12, 2003).

<sup>25</sup> See EPA, *Emission Standards and Test Procedures for Aircraft and Aircraft Engines: Summary and Analysis of Comments*, 42–45 (November 2005), available at <http://www.epa.gov/nonroad/aviation/420r05004.pdf> (last visited May 16, 2011).

<sup>26</sup> See *2006 Petition* at 7–8 (detailing how many engines had been certified by the FAA to operate with unleaded fuel); FAA, *Supplemental Type Certification Database*, [http://rgl.faa.gov/regulatory\\_and\\_guidance\\_library/rgSTC.nsf/MainFrame?OpenFrameSet](http://rgl.faa.gov/regulatory_and_guidance_library/rgSTC.nsf/MainFrame?OpenFrameSet) (last visited May 16, 2011). The Federal Aviation Administration's William J. Hughes Technical Center has been involved in testing and investigating unleaded fuel alternatives since the mid-1990's. See FAA, *Unleaded Avgas Transition Aviation Rulemaking Committee Charter* (Jan. 31, 2011), available at <http://www.faa.gov/about/initiatives/avgas/mediaFiles/AvgasCharter.pdf> (last visited May 16, 2011).

<sup>27</sup> See *2006 Petition*.

<sup>28</sup> *Id.* at 1.

To date, EPA has neither made a finding of endangerment nor found that insufficient information exists to make an endangerment finding. Although EPA issued an Advance Notice of Proposed Rulemaking (ANPR) last year, the ANPR does not propose any regulations applicable to piston-engine aircraft, it does not establish any timeframe by which EPA intends to undertake the requested rulemaking, and it does not affirm that it either will or will not propose such regulations in the future. Instead, the ANPR merely “describe[s] information currently available and information being collected” and “describe[s] and request[s] comment on additional information being collected.”<sup>29</sup> EPA’s recent actions further demonstrate that the Agency has failed to establish any timetable for moving forward with respect to the regulation of leaded avgas. In February 2011, EPA reportedly met with pilots and representatives of the aviation industry in Alaska and, according to Aircraft Owners and Pilots Association Online, “emphasized that so far the EPA is only studying [general aviation] emissions, not proposing regulations on them, and that no fixed time frame has been established for publishing a finding from its review.”<sup>30</sup> Most recently, in March 2011, EPA made a presentation to a Federal Aviation Administration committee admitting that although it “has a duty to respond to FOE’s petition that . . . [EPA] evaluate the question of endangerment”, it still has “made no decisions.”<sup>31</sup>

## **Conclusion**

EPA’s failure to make the necessary endangerment finding and to regulate lead emissions from avgas has significant implications for human health. Section 231(a)(2)(A) of the Clean Air Act requires the Administrator to regulate “any air pollutant from any class or classes of aircraft engines which in [her] judgment causes, or contributes to, air pollution which may reasonably be anticipated to endanger public health or welfare.” 42 U.S.C. § 7571. The available evidence overwhelmingly demonstrates that EPA has known for years that lead emissions from avgas-fueled aircraft meet both of the requirements for finding endangerment. Four and a half years later, EPA still has not responded to FOE’s Petition requesting that EPA make a finding that lead emissions from general aviation aircraft endanger the public health or welfare and adopt regulations to reduce lead emissions from these sources. Based on this unreasonable and unjustifiable delay, FOE intends to file suit.

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<sup>29</sup> ANPR at 22,440.

<sup>30</sup> *EPA Meets With Alaska Operators on Avgas Issue*, AOPA Online, Feb. 14, 2011, available at [http://www.aopa.org/advocacy/articles/2011/110214epa\\_meets\\_with\\_alaska\\_operators\\_on\\_avgas.html](http://www.aopa.org/advocacy/articles/2011/110214epa_meets_with_alaska_operators_on_avgas.html) (last visited May 16, 2011).

<sup>31</sup> EPA Presentation to FAA Aviation Rulemaking Committee (March 2011), available at <http://www.faa.gov/about/initiatives/avgas/media/media/EPAslides.pdf> (last visited May 16, 2011)

Please feel free to contact the undersigned to discuss the basis for this notice or to explore possible options for resolving these issues short of litigation.

Sincerely,



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