

118TH CONGRESS  
1ST SESSION

# H. R. 1049

To direct the Administrator of the Federal Aviation Administration to conduct a study relating to ultrafine particles, and for other purposes.

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## IN THE HOUSE OF REPRESENTATIVES

FEBRUARY 14, 2023

Mr. SMITH of Washington introduced the following bill; which was referred to the Committee on Transportation and Infrastructure, and in addition to the Committee on Energy and Commerce, for a period to be subsequently determined by the Speaker, in each case for consideration of such provisions as fall within the jurisdiction of the committee concerned

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## A BILL

To direct the Administrator of the Federal Aviation Administration to conduct a study relating to ultrafine particles, and for other purposes.

1 *Be it enacted by the Senate and House of Representa-*  
2 *tives of the United States of America in Congress assembled,*

3 **SECTION 1. SHORT TITLE.**

4 This Act may be cited as the “Protecting Airport  
5 Communities from Particle Emissions Act”.

6 **SEC. 2. AIRBORNE ULTRAFINE PARTICLE STUDY.**

7 (a) IN GENERAL.—Not later than 180 days after the  
8 date of enactment of this Act, the Administrator of the

1 Federal Aviation Administration, jointly with the Adminis-  
2 trator of the Environmental Protection Agency, shall enter  
3 into an agreement with an eligible institution of higher  
4 education to conduct a study examining airborne ultrafine  
5 particles and their effect on human health.

6 (b) SCOPE OF STUDY.—The study conducted under  
7 subsection (a) shall—

8 (1) summarize the relevant literature and stud-  
9 ies done on airborne ultrafine particles worldwide;

10 (2) focus on large hub commercial airports in—

11 (A) Seattle;

12 (B) Boston;

13 (C) Chicago;

14 (D) New York;

15 (E) the Northern California Metroplex;

16 (F) Phoenix;

17 (G) the Southern California Metroplex;

18 (H) the District of Columbia; and

19 (I) Atlanta;

20 (3) examine airborne ultrafine particles and  
21 their effect on human health, including—

22 (A) characteristics of UFPs present in the  
23 air;

24 (B) spatial and temporal distributions of  
25 UFP concentrations;

1 (C) primary sources of UFPs;

2 (D) the contribution of aircraft and airport  
3 operations to the distribution of UFP con-  
4 centrations when compared to other sources;

5 (E) potential health effects associated with  
6 elevated UFP exposures, including outcomes re-  
7 lated to cardiovascular disease, respiratory in-  
8 fection and disease, degradation of  
9 neurocognitive functions, and other health ef-  
10 fects, that have been considered in previous  
11 studies; and

12 (F) potential UFP exposures, especially to  
13 susceptible and vulnerable groups;

14 (4) identify measures, including the use of sus-  
15 tainable aviation fuels, intended to reduce emissions  
16 from aircraft and airport operations and assess po-  
17 tential effects on emissions related to UFPs; and

18 (5) identify information gaps related to under-  
19 standing relationships between UFP exposures and  
20 health effects, contributions of aviation-related emis-  
21 sions to UFP exposures, and the effectiveness of  
22 mitigation measures.

23 (c) ELIGIBILITY.—An institution of higher education  
24 is eligible to conduct the study if the institution—

1           (1) is located in one of the areas identified in  
2 subsection (b);

3           (2) applies to the Administrator of the Federal  
4 Aviation Administration in a timely fashion;

5           (3) demonstrates to the satisfaction of the Ad-  
6 ministrator that the institution is qualified to con-  
7 duct the study;

8           (4) agrees to submit to the Administrator, not  
9 later than 2 years after entering into an agreement  
10 under subsection (a), the results of the study, in-  
11 cluding any source materials used; and

12           (5) meets such other requirements as the Ad-  
13 ministrator determines necessary.

14       (d) COORDINATION.—The Administrator may coordi-  
15 nate with the Administrator of the Environmental Protec-  
16 tion Agency, the Secretary of Health and Human Services,  
17 and any other agency head whom the Administrator deems  
18 appropriate to provide data and other assistance necessary  
19 for the study.

20       (e) REPORT.—Not later than 180 days after submis-  
21 sion of the results of the study by the institution of higher  
22 education, the Administrator shall submit to the Com-  
23 mittee on Transportation and Infrastructure and the  
24 Committee on Energy and Commerce of the House of  
25 Representatives and the Committee on Commerce,

1 Science, and Transportation of the Senate a report on the  
2 study including the results of the study submitted under  
3 subsection (c)(4) by the institution of higher education.

4 (f) DEFINITION.—In this Act, the terms “ultrafine  
5 particle” and “UFP” mean particles with diameters less  
6 than or equal to 100 nanometers.

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