

116TH CONGRESS
1ST SESSION

H. R. 4656

To direct the Administrator of the Environmental Protection Agency to seek to enter an agreement with the National Academies of Sciences, Engineering, and Medicine to conduct a study on the science of background ozone in the United States and to provide research recommendations to better understand background ozone contributions to ground-level ozone, and for other purposes.

IN THE HOUSE OF REPRESENTATIVES

OCTOBER 11, 2019

Mr. MCADAMS (for himself and Mr. ROONEY of Florida) introduced the following bill; which was referred to the Committee on Science, Space, and Technology

A BILL

To direct the Administrator of the Environmental Protection Agency to seek to enter an agreement with the National Academies of Sciences, Engineering, and Medicine to conduct a study on the science of background ozone in the United States and to provide research recommendations to better understand background ozone contributions to ground-level ozone, 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,*

1 **SECTION 1. SHORT TITLE.**

2 This Act may be cited as the “Background Ozone Re-
3 search Act”.

4 **SEC. 2. FINDINGS.**

5 Congress finds the following:

6 (1) Ground-level ozone, a type of tropospheric
7 ozone, is created when nitrogen oxides (NOX) and
8 volatile organic compounds (VOCs), emitted by
9 motor vehicles, power plants, other industrial pro-
10 cesses, or natural processes like wildfires, chemically
11 react in the presence of ultraviolet (UV) radiation
12 from the Sun.

13 (2) Ground-level ozone present in a given area
14 may be attributed to either local, human produced
15 sources or sources that are not local and human pro-
16 duced.

17 (3) United States background ozone (hereafter
18 referred to as “background ozone”) is the ground-
19 level ozone that would exist in the absence of any
20 human-produced emissions inside the United States.

21 (4) Ground level ozone is considered a harmful
22 pollutant due to its effects on people and the envi-
23 ronment and is the main component of smog.

24 (5) The American Thoracic Society estimated
25 the annual excess mortality due to ground-level

1 ozone in the United States at 3,880 individuals as
2 of 2017.

3 (6) Ground-level ozone has been linked to plant
4 damages and thus diminished crop yields.

5 (7) A number of cities and regions in the
6 United States remain out of compliance with Envi-
7 ronmental Protection Agency (EPA) National Ambi-
8 ent Air Quality Standards (NAAQS) for ground-
9 level ozone.

10 (8) Further research would help to understand
11 background ozone trends and how to mitigate back-
12 ground ozone.

13 **SEC. 3. STUDY ON BACKGROUND OZONE RESEARCH NEEDS.**

14 (a) IN GENERAL.—Not later than 60 days after the
15 date of enactment of this Act, the Administrator of the
16 Environmental Protection Agency shall seek to enter an
17 agreement with the National Academies of Sciences, Engi-
18 neering, and Medicine (referred to in this Act as the “Na-
19 tional Academies”) under which the National Academies
20 shall conduct a study on the current and future research
21 needs regarding background ozone. The study shall—

22 (1) propose a framework of standard terms and
23 definitions for types of non-local ground level ozone,
24 including types of background ozone, to standardize
25 research on ground-level ozone;

1 (2) examine the current understanding of back-
2 ground sources of ozone and the contribution of such
3 sources to ground-level ozone in the United States to
4 identify gaps in knowledge that need to be addressed
5 with additional research;

6 (3) examine challenges in quantifying the
7 sources of background ozone and the contributions
8 of each such source to ground-level ozone on a re-
9 gional scale in the United States and identifies spe-
10 cific research needs to address these challenges;

11 (4) include an outline of a plan for a research
12 and development program, including specifications
13 for costs, timeframes, and responsible agencies, to
14 support analysis and demonstration of background
15 ozone trends, including by—

16 (A) improving collection and observational
17 infrastructure;

18 (B) improving confidence in model outputs;

19 (C) reducing uncertainties in estimates of
20 background ozone; and

21 (D) making background ozone research
22 outputs more useful and accessible to decision-
23 makers; and

24 (5) identify opportunities for international en-
25 gagement that may facilitate increased research col-

1 laborations that improve understanding of ozone
2 trends.

3 (b) REPORT.—As a condition of any agreement under
4 subsection (a), the Administrator shall require that the
5 National Academies transmit to Congress a report on the
6 results of the study under subsection (a) not later than
7 24 months after the date of enactment of this Act.

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