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118TH CONGRESS
1ST SESSION

H. R. 1293

To improve the safety of the air supply on aircraft, and for other purposes.

IN THE HOUSE OF REPRESENTATIVES

MARCH 1, 2023

Mr. GARAMENDI (for himself and Mr. FITZPATRICK) introduced the following bill; which was referred to the Committee on Transportation and Infrastructure

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A BILL

To improve the safety of the air supply on aircraft, and for other purposes.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,

SECTION 1. SHORT TITLE.

This Act may be cited as the ''Cabin Air Safety Act of 2023''.

SEC. 2. IMPROVEMENTS TO THE SAFETY OF THE AIR SUPPLY ON AIRCRAFT.

(a) IN GENERAL.—Subpart III of part A of subtitle VII of title 49, United States Code, is amended by adding at the end the following new chapter:

"CHAPTER 454—CABIN AIR QUALITY AND SAFETY

"§ 45401. Definition of Administrator

''In this chapter the term 'Administrator' means the Administrator of the Federal Aviation Administration.

"§ 45402. Training to respond to smoke or fume incidents on aircraft

''(a) IN GENERAL.—Not later than 180 days after the date of the enactment of this section, the Administrator shall promulgate regulations requiring flight attendants, pilots, aircraft maintenance technicians, and airport first responders and emergency response teams to receive training, not less frequently than annually, on how to respond to incidents on board aircraft involving smoke or fumes.

''(b) REQUIREMENTS.—The training required by subsection (a) shall include the dissemination of educational materials with respect to the following:

''(1) Sources and types of smoke and fumes on board aircraft.

''(2) Odor and visual descriptors to allow an individual to recognize the presence of engine oil and hydraulic fluid fumes and other potentially hazardous fumes, such as fumes relating to engine ex-

haust, ground service vehicle exhaust, fuel, de-icing fluid, electrical failures, and ozone.

''(3) The potential for acute or chronic impairment to an individual relating to such fumes.

''(4) Procedures for recognizing and responding to smoke and fumes on board aircraft.

''(5) An overview of the system for reporting incidents of smoke or fumes on board aircraft established under section 45403(a)(2).

''(6) Requirements relating to reporting incidents of smoke and fumes on board aircraft to the Administrator under sections 45403 and 45405(b).

''§ 45403. Reporting of incidents of smoke or fumes on board aircraft

''(a) IN GENERAL.—Not later than 180 days after the date of the enactment of this section, the Administrator shall—

''(1) develop a standardized form for flight attendants, pilots, and aircraft maintenance technicians to report incidents of smoke or fumes on board an aircraft operated by an air carrier; and

''(2) establish a system for reporting incidents of smoke or fumes on board aircraft that allows—

''(A) pilots, flight attendants, and aircraft maintenance technicians to—

''(i) submit the form developed under paragraph (1) to the Administrator and the relevant air carrier; and

''(ii) receive a copy of such submission for their records; and

''(B) pilots, flight attendants, aircraft maintenance technicians, the collective bargaining representative of employees of the air carrier, and air carriers to search the reported incidents database compiled by the Administrator for the purposes of reviewing and monitoring incidents contained in the database and assisting with investigations conducted under section 45404.

''(b) CONTENT OF FORMS.—The form developed under subsection (a)(1) for reporting an incident of smoke or fumes on board an aircraft shall include sections for the following information, if available at the time of the report:

''(1) Identification of the flight number, the city pair, the type of aircraft, the registration number of the aircraft, and the individual reporting the incident.

''(2) Information about the presence of smoke, including a description of the nature, intensity, and visual consistency (if any).

''(3) Information about the presence of fumes, including a description of the nature and intensity of the odor.

''(4) Information about the location of the smoke or fumes in the aircraft.

''(5) Information about the source of the smoke or fumes, including in relation to the air supply vents and electrical system.

''(6) Information about the type of smoke or fumes.

''(7) Information about the engine manufacturer, engine type, the engine serial number, and the age of the engine.

''(8) Information about—

''(A) the phase of flight during which smoke or fumes were present;

''(B) the estimated duration of the smoke or fumes; and

''(C) if the incident happened while the aircraft was on the ground, information about the air supply source at the time of the incident.

''(9) Other observations about the smoke or fumes.

''(10) A description of symptoms reported by crew members and passengers and any required on-board medical attention.

''(11) Information with respect to whether crew members or passengers used, needed, or were administered supplemental or emergency oxygen.

''(12) Information regarding any disruption to the operation of the flight or subsequent flights.

''(13) Information about relevant maintenance work conducted on the aircraft prior to and following the incident.

''(14) Relevant air monitoring data collected during the flight.

''(c) PUBLIC AVAILABILITY OF SMOKE AND FUME EVENT INFORMATION.—

''(1) IN GENERAL.—Not less frequently than quarterly and subject to paragraph (2), the Administrator shall compile, and make available to the public, statistics regarding the information obtained from the forms developed under subsection (a)(1) and submitted to the Administrator.

''(2) WEBSITE.—The Administrator shall develop a publicly available internet website that in-

cludes the aggregate data required under paragraph (1) and a searchable database for the events reported to the Administrator under subsection (a)(2) that includes the following variables for each event:

"(A) Date.

"(B) Tail number.

"(C) Aircraft type.

"(D) Air carrier.

"(E) Phase of flight.

"(F) Location of smoke or fumes in the aircraft.

"(G) Description of smoke or fumes, including relation to air supply vents and the nature and intensity of the odor.

"(H) Engine or auxiliary power unit type.

"(I) Engine oil or hydraulic fluid type, including product name.

"(J) Deidentified narrative.

"(K) Relevant maintenance information.

"(L) Such other criteria as the Administrator considers appropriate.

"(3) REDACTION.—Before making either individual event information or aggregate data available to the public under paragraph (1) or (2), the Admin-

istrator shall redact any personally identifiable information.

"§ 45404. Investigations

''(a) IN GENERAL.—Not later than 180 days after the date of the enactment of this section, the Administrator shall promulgate regulations—

''(1) authorizing the Federal Aviation Administration to, at their discretion, conduct an investigation described in subsection (b) not less than 7 days after a report is submitted to the Administrator through the system for reporting incidents of smoke or fumes on board aircraft established under section 45403(a)(2); and

''(2) requiring the Federal Aviation Administration to conduct an investigation described in subsection (b) when the report indicates that 1 or more crew members or passengers had symptoms that required medical attention.

''(b) REQUIREMENTS FOR INVESTIGATIONS.—An investigation described in this subsection shall include the following:

''(1) Gathering factual and standardized information from all flight attendants, pilots, aircraft maintenance technicians, airport first responders,

emergency response teams, and medical doctors involved in the incident.

''(2) Gathering any reports submitted under section 45403 with respect to the incident.

''(3) Gathering technical findings on any replaced, worn, missing, failed, or improperly serviced components that may have resulted in the incident.

''(4) Identifying the cause of the incident, if possible.

''(c) PARTICIPATION OF AIR CARRIERS AND COLLECTIVE BARGAINING REPRESENTATIVES.—In conducting an investigation under this section, the Federal Aviation Administration shall—

''(1) consult with the air carrier involved;

''(2) work in conjunction with the technical representatives of the air carrier; and

''(3) invite the participation of the collective bargaining representative of employees of the air carrier.

''§ 45405. Air quality monitoring equipment

''(a) REQUIREMENT TO INCLUDE ON AIRCRAFT.—Not later than 180 days after the date of the enactment of this section, the Administrator shall promulgate regulations requiring an air carrier, after 90 days for public

comment and not later than 1 year after the regulations are finalized in the Federal Register—

''(1) to install and operate onboard detectors and other air quality monitoring equipment that—

''(A) are situated in the air supply system to enable pilots and maintenance technicians to identify the location of the source or sources of air supply contamination in real time, including any concentration of carbon monoxide that is dangerous to human health;

''(B) continuously monitor any relevant marker compound consistent with engine oil and hydraulic fluid fume concentration in the aircraft cabin and air supply system; and

''(C) alert the pilot and flight attendants to poor air quality that is dangerous to human health; and

''(2) to have in place procedures to train the pilots to initiate standardized communication and source isolation protocols, as soon as appropriate, with the flight attendants and air traffic controllers (as needed), and to apply their professional judgement based on onboard conditions, all in response to poor air quality that is dangerous to human health.

''(b) AUTHORITY OF THE ADMINISTRATOR.—The Administrator may establish standards for aircraft cabin air quality, as the Administrator determines is necessary to protect the health and safety of air carrier crew members and passengers, in consultation with—

''(1) the Director of the National Institute for Occupational Safety and Health of the Centers for Disease Control and Prevention;

''(2) the Assistant Secretary of Labor for Occupational Safety and Health; and

''(3) the Administrator of the Environmental Protection Agency.

''(c) INCLUSION OF INFORMATION RELATING TO AIR QUALITY MONITORING EQUIPMENT IN AIRCRAFT MANUALS.—Not later than 1 year after the date of the enactment of this section, the Administrator shall promulgate regulations requiring an aircraft manufacturer that manufactures aircraft for air carriers to include procedures for responding to alarms from air quality monitoring equipment required under subsection (a) during normal and nonstandard operations in the flight operator's manual for each such aircraft produced by the manufacturer.

''(d) CONTINUING RESEARCH TO DEVELOP SENSORS AND TECHNIQUES TO MONITOR CABIN AIR QUALITY.—The Administrator shall continue to research, study, and

identify emerging technologies suitable to provide reliable warning of cabin air contamination from an aircraft bleed air system, including through investigation and research into specific sensors, methods, and operational techniques to prevent poor air quality that is dangerous to human health.

''(e) RULE OF CONSTRUCTION.—Nothing in this section may be construed to imply that an investigation under section 45404 is not necessary or that crew members and passengers have not been exposed to smoke or fumes if the alarm from any air quality monitoring equipment installed on an aircraft is not activated.

"§ 45406. Minimum equipment list for bleed air system

''Not later than 180 days after the date of the enactment of this section, the Administrator shall promulgate regulations requiring any manufacturer of aircraft that transports passengers or cargo to include the air quality monitoring equipment required under section 45405 in the master minimum equipment list for aircraft with a bleed air system certified under section 44704 or for which certification was delegated under section 44702(d).

"§ 45407. Authorization of appropriations

''There are authorized to be appropriated to the Administrator such sums as may be necessary to carry out this chapter.

"§ 45408. Exclusion of helicopters

''The provisions of this chapter do not apply to helicopters.''.

(b) CONFORMING AMENDMENTS.—

(1) TABLE OF CONTENTS.—The table of contents of subpart III of part A of subtitle VII of title 49, United States Code, is amended by inserting after the item relating to chapter 453 the following:

''CHAPTER 454—CABIN AIR QUALITY AND SAFETY

''45401. Definition of Administrator.
''45402. Training to respond to smoke or fume incidents on aircraft.
''45403. Reporting of incidents of smoke or fumes on board aircraft.
''45404. Investigations.
''45405. Air quality monitoring equipment.
''45406. Minimum equipment list for bleed air system.
''45407. Authorization of appropriations.
''45408. Exclusion of helicopters.''.

(2) CONFORMING REPEAL.—Section 326 of the FAA Reauthorization Act of 2018 (49 U.S.C. 40101 note) and the item relating to that section in the table of contents under section 1(b) of that Act are repealed.

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