

118TH CONGRESS  
1ST SESSION

# S. 576

To enhance safety requirements for trains transporting hazardous materials,  
and for other purposes.

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## IN THE SENATE OF THE UNITED STATES

MARCH 1, 2023

Mr. BROWN (for himself, Mr. VANCE, Mr. CASEY, Mr. RUBIO, Mr. FETTERMAN, and Mr. HAWLEY) introduced the following bill; which was read twice and referred to the Committee on Commerce, Science, and Transportation

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## A BILL

To enhance safety requirements for trains transporting  
hazardous materials, 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; TABLE OF CONTENTS.**

4 (a) SHORT TITLE.—This Act may be cited as the  
5 “Railway Safety Act of 2023”.

6 (b) TABLE OF CONTENTS.—The table of contents for  
7 this Act is as follows:

- Sec. 1. Short title; table of contents.
- Sec. 2. Defined term.
- Sec. 3. Safety requirements for trains transporting hazardous materials.
- Sec. 4. Rail car inspections.
- Sec. 5. Defect detectors.

Sec. 6. Safe Freight Act of 2023.

Sec. 7. Increasing maximum civil penalties for violations of rail safety regulations.

Sec. 8. Safer tank cars.

Sec. 9. Hazardous materials training for first responders.

Sec. 10. Rail safety infrastructure research and development grants.

Sec. 11. Appropriations for tank car research and development.

1 **SEC. 2. DEFINED TERM.**

2 In this Act, the term “Secretary” means the Sec-  
3 retary of Transportation.

4 **SEC. 3. SAFETY REQUIREMENTS FOR TRAINS TRANS-**  
5 **PORTING HAZARDOUS MATERIALS.**

6 (a) RULEMAKING.—Not later than 1 year after the  
7 date of the enactment of this Act, the Secretary shall issue  
8 regulations, or modify existing regulations, establishing  
9 safety requirements, in accordance with subsection (b),  
10 with which a shipper or rail carrier operating a train  
11 transporting hazardous materials that is not subject to the  
12 requirements for a high-hazard flammable train under sec-  
13 tion 174.310 of title 49, Code of Federal Regulations,  
14 shall comply with respect to the operation of each such  
15 train and the maintenance of specification tank cars.

16 (b) REQUIREMENTS.—The regulations issued pursu-  
17 ant to subsection (a) shall require shippers and rail car-  
18 riers—

19 (1) to provide advance notification and informa-  
20 tion regarding the transportation of hazardous mate-  
21 rials described in subsection (a) to each State emer-  
22 gency response commissioner, the tribal emergency

1 response commission, or any other State or tribal  
2 agency responsible for receiving the information no-  
3 tification for emergency response planning informa-  
4 tion;

5 (2) to include, in the notification provided pur-  
6 suant to paragraph (1), a written gas discharge plan  
7 with respect to the applicable hazardous materials  
8 being transported; and

9 (3) to reduce or eliminate blocked crossings re-  
10 sulting from delays in train movements.

11 (c) **ADDITIONAL REQUIREMENTS.**—In developing the  
12 regulations required under subsection (a), the Secretary  
13 shall include requirements regarding—

14 (1) train length and weight;

15 (2) train consist;

16 (3) route analysis and selection;

17 (4) speed restrictions;

18 (5) track standards;

19 (6) track, bridge, and rail car maintenance;

20 (7) signaling and train control;

21 (8) response plans; and

22 (9) any other requirements that the Secretary  
23 determines are necessary.

24 (d) **HIGH-HAZARD FLAMMABLE TRAINS.**—The Sec-  
25 retary may modify the safety requirements for trains sub-

1 ject to section 174.310 of title 49, Code of Federal Regu-  
2 lations, to satisfy, in whole or in part, the rulemaking re-  
3 quired under subsection (a).

4 **SEC. 4. RAIL CAR INSPECTIONS.**

5 (a) RULEMAKING.—

6 (1) INSPECTION REQUIREMENTS.—Not later  
7 than 1 year after date of the enactment of this Act,  
8 the Secretary shall review and update, as necessary,  
9 applicable regulations under chapters I and II of  
10 subtitle B of title 49, Code of Federal Regulations—

11 (A) to create minimum time requirements  
12 that a qualified mechanical inspector must  
13 spend when inspecting a rail car or locomotive;  
14 and

15 (B) to ensure that all rail cars and loco-  
16 motives in train consists that carry hazardous  
17 materials are inspected by a qualified mechan-  
18 ical inspector at intervals determined by the  
19 Secretary.

20 (2) ABBREVIATED PRE-DEPARTURE INSPEC-  
21 TION.—The Secretary shall immediately amend sec-  
22 tion 215.13(c) of title 49, Code of Federal Regula-  
23 tions (permitting an abbreviated pre-departure in-  
24 spection procedure) with respect to rail cars in train  
25 consists carrying hazardous materials.

1 (b) AUDITS.—

2 (1) IN GENERAL.—Not later than 60 days after  
3 the date of the enactment of this Act, the Secretary  
4 shall initiate audits of Federal rail car inspection  
5 programs, subject to the requirements under part  
6 215 of title 49, Code of Federal Regulations,  
7 which—

8 (A) consider whether such programs are in  
9 compliance with such part 215;

10 (B) assess the type and content of training  
11 and performance metrics that such programs  
12 provide rail car inspectors;

13 (C) determine whether such programs pro-  
14 vide inspectors with adequate time to inspect  
15 rail cars;

16 (D) determine whether such programs re-  
17 flect the current operating practices of the rail-  
18 road carrier; and

19 (E) ensure that inspection programs are  
20 not overly reliant on train crews.

21 (2) AUDIT SCHEDULING.—The Secretary  
22 shall—

23 (A) schedule the audits required under  
24 paragraph (1) to ensure that—

1 (i) each Class I railroad is audited not  
2 less frequently than once every 5 years;  
3 and

4 (ii) a select number, as determined by  
5 the Secretary, of Class II and Class III  
6 railroads are audited annually; and

7 (B) conduct the audits described in sub-  
8 paragraph (A)(ii) in accordance with—

9 (i) the Small Business Regulatory En-  
10 forcement Fairness Act of 1996 (5 U.S.C.  
11 601 note); and

12 (ii) appendix C of part 209 of title 49,  
13 Code of Federal Regulations.

14 (3) UPDATES TO INSPECTION PROGRAM.—If,  
15 during an audit required under this subsection, the  
16 auditor identifies a deficiency in a railroad’s inspec-  
17 tion program, the railroad shall update the program  
18 to eliminate such deficiency.

19 (4) CONSULTATION AND COOPERATION.—

20 (A) CONSULTATION.—In conducting any  
21 audit required under this subsection, the Sec-  
22 retary shall consult with the railroad being au-  
23 dited and its employees, including any nonprofit  
24 employee labor organization representing the  
25 mechanical employees of the railroad.

1 (B) COOPERATION.—The railroad being  
2 audited and its employees, including any non-  
3 profit employee labor organization representing  
4 mechanical employees, shall fully cooperate with  
5 any audit conducted pursuant to this sub-  
6 section—

7 (i) by providing any relevant docu-  
8 ments requested; and

9 (ii) by making available any employees  
10 for interview without undue delay or ob-  
11 struction.

12 (C) FAILURE TO COOPERATE.—If the Sec-  
13 retary determines that a railroad or any of its  
14 employees, including any nonprofit employee  
15 labor organization representing mechanical em-  
16 ployees of the railroad is not fully cooperating  
17 with an audit conducted pursuant to this sub-  
18 section, the Secretary shall electronically notify  
19 the Committee on Commerce, Science, and  
20 Transportation of the Senate and the Com-  
21 mittee on Transportation and Infrastructure of  
22 the House of Representatives of such non-  
23 cooperation.

24 (c) REVIEW OF REGULATIONS.—The Secretary shall  
25 triennially determine whether any update to part 215 of

1 title 49, Code of Federal Regulations, is necessary to en-  
2 sure the safety of rail cars transported by rail carriers.

3 (d) ANNUAL REPORT.—The Secretary shall publish  
4 an annual report on the public website of the Federal Rail-  
5 road Administration that—

6 (1) summarizes the findings of the prior year’s  
7 audits;

8 (2) summarizes any updates made pursuant to  
9 this section; and

10 (3) excludes any confidential business informa-  
11 tion or sensitive security information.

12 (e) RULE OF CONSTRUCTION.—Nothing in this sec-  
13 tion may be construed—

14 (1) to limit the deployment of pilot programs  
15 for the installation, test, verification, and review of  
16 automated rail and train inspection technologies; or

17 (2) to direct the Secretary to waive any existing  
18 inspection requirements under chapter I or II of  
19 subtitle B of title 49, Code of Federal Regulations,  
20 as part of pilot programs.

21 **SEC. 5. DEFECT DETECTORS.**

22 (a) RULEMAKING.—Not later than 1 year after the  
23 date of the enactment of this Act, the Secretary shall issue  
24 regulations establishing requirements for the installation,  
25 repair, testing, maintenance, and operation of wayside de-



1 defect detectors for each rail carrier operating a train consist  
2 carrying hazardous materials.

3 (b) REQUIREMENTS.—The regulations issued pursu-  
4 ant to subsection (a) shall include requirements regard-  
5 ing—

6 (1) the frequency of the placement of wayside  
7 defect detectors, including a requirement that all  
8 Class I railroads install a hotbox detector along  
9 every 10-mile segment of rail track over which trains  
10 carrying hazardous materials operate;

11 (2) performance standards for such detectors;

12 (3) the maintenance and repair requirements  
13 for such detectors;

14 (4) reporting data and maintenance records of  
15 such detectors;

16 (5) appropriate steps the rail carrier must take  
17 when receiving an alert of a defect or failure from  
18 or regarding a wayside defect detector; and

19 (6) the use of hotbox detectors to prevent  
20 derailments from wheel bearing failures, including—

21 (A) the temperatures, to be specified by  
22 the Secretary, at which an alert from a hotbox  
23 detector is triggered to warn of a potential  
24 wheel bearing failure; and

1 (B) any actions that shall be taken by a  
2 rail carrier upon receiving an alert from a hot-  
3 box detector of a potential wheel bearing fail-  
4 ure.

5 (c) DEFECT AND FAILURE IDENTIFICATION.—The  
6 Secretary shall specify the categories of defects and fail-  
7 ures that wayside defect detectors covered by regulations  
8 issued pursuant to subsection (a) shall address, includ-  
9 ing—

- 10 (1) axles;
- 11 (2) wheel bearings;
- 12 (3) brakes;
- 13 (4) signals;
- 14 (5) wheel impacts; and
- 15 (6) other defects or failures specified by the  
16 Secretary.

17 **SEC. 6. SAFE FREIGHT ACT OF 2023.**

18 (a) SHORT TITLE.—This section may be cited as the  
19 “Safe Freight Act of 2023”.

20 (b) FREIGHT TRAIN CREW SIZE.—Subchapter II of  
21 chapter 201 of title 49, United States Code, is amended  
22 by inserting after section 20153 the following:

23 **“§ 20154. Freight train crew size safety standards**

24 “(a) MINIMUM CREW SIZE.—No freight train may be  
25 operated without a 2-person crew consisting of at least 1

1 appropriately qualified and certified conductor and 1 ap-  
2 propriately qualified and certified locomotive engineer.

3 “(b) EXCEPTIONS.—Except as provided in subsection  
4 (c), the requirement under subsection (a) shall not apply  
5 with respect to—

6 “(1) train operations on track that is not a  
7 main line track;

8 “(2) a freight train operated—

9 “(A) by a railroad carrier that has fewer  
10 than 400,000 total employee work hours annu-  
11 ally and less than \$40,000,000 annual revenue  
12 (adjusted for inflation, as calculated by the Sur-  
13 face Transportation Board Railroad Inflation-  
14 Adjusted Index and Deflator Factor Table);

15 “(B) at a speed of not more than 25 miles  
16 per hour; and

17 “(C) on a track with an average track  
18 grade of less than 2 percent for any segment of  
19 track that is at least 2 continuous miles;

20 “(3) locomotives performing assistance to a  
21 train that has incurred mechanical failure or lacks  
22 the power to traverse difficult terrain, including  
23 traveling to or from the location where assistance is  
24 provided;

25 “(4) locomotives that—

1           “(A) are not attached to any equipment or  
2           are attached only to a caboose; and

3           “(B) do not travel further than 30 miles  
4           from the point of origin of such locomotive; and

5           “(5) train operations staffed with fewer than a  
6           2-person crew at least 1 year before the date of en-  
7           actment of this section, if the Secretary determines  
8           that such operations achieve an equivalent level of  
9           safety as would result from compliance with the re-  
10          quirement under subsection (a).

11          “(c) TRAINS INELIGIBLE FOR EXCEPTION.—The ex-  
12          ceptions under subsection (b) may not be applied to—

13           “(1) a train transporting 1 or more loaded cars  
14           carrying material toxic by inhalation (as defined in  
15           section 171.8 of title 49, Code of Federal Regula-  
16           tions);

17           “(2) a train transporting—

18           “(A) 20 or more loaded tank cars of a  
19           Class 2 material or a Class 3 flammable liquid  
20           in a continuous block; or

21           “(B) 35 or more loaded tank cars of a  
22           Class 2 material or a Class 3 flammable liquid  
23           throughout the train consist; or

24           “(3) a train with a total length of at least  
25           7,500 feet.

1 “(d) WAIVER.—A railroad carrier may seek a waiver  
 2 of the requirements under this section in accordance with  
 3 section 20103(d).”.

4 (c) CLERICAL AMENDMENT.—The analysis for sub-  
 5 chapter II of chapter 201 of title 49, United States Code,  
 6 is amended by inserting after the item relating to section  
 7 20153 the following:

“20154. Freight train crew size.”.

8 **SEC. 7. INCREASING MAXIMUM CIVIL PENALTIES FOR VIO-**  
 9 **LATIONS OF RAIL SAFETY REGULATIONS.**

10 (a) CIVIL PENALTIES RELATED TO TRANSPORTING  
 11 HAZARDOUS MATERIALS.—Section 5123(a) of title 49,  
 12 United States Code, is amended—

13 (1) in paragraph (1), in the matter preceding  
 14 subparagraph (A), by striking “\$75,000” and insert-  
 15 ing “the greater of 0.5 percent of the person’s an-  
 16 nual income or annual operating income or  
 17 \$750,000”; and

18 (2) in paragraph (2), by striking “\$175,000”  
 19 and inserting “the greater of 1 percent of the per-  
 20 son’s annual income or annual operating income or  
 21 \$1,750,000”.

22 (b) GENERAL VIOLATIONS OF CHAPTER 201.—Sec-  
 23 tion 21301(a)(2) of title 49, United States Code, is  
 24 amended—

1 (1) by striking “\$25,000.” and inserting “the  
2 greater of 0.5 percent of the person’s annual income  
3 or annual operating income or \$250,000”; and

4 (2) by striking “\$100,000.” and inserting “the  
5 greater of 1 percent of the person’s annual income  
6 or annual operating income or \$1,000,000”.

7 (c) ACCIDENT AND INCIDENT VIOLATIONS OF CHAP-  
8 TER 201; VIOLATIONS OF CHAPTERS 203 THROUGH  
9 209.—Section 21302(a) is amended—

10 (1) in paragraph (1), by striking “203–209”  
11 each place it appears and inserting “203 through  
12 209”; and

13 (2) in paragraph (2)—

14 (A) by striking “\$25,000” and inserting  
15 “the greater of 0.5 percent of the person’s an-  
16 nual income or annual operating income or  
17 \$250,000”; and

18 (B) by striking “\$100,000” and inserting  
19 “the greater of 1 percent of the person’s annual  
20 income or annual operating income or  
21 \$1,000,000”.

22 (d) VIOLATIONS OF CHAPTER 211.—Section  
23 21303(a)(2) is amended—

1           (1) by striking “\$25,000.” and inserting “the  
2           greater of 0.5 percent of the person’s annual income  
3           or annual operating income or \$250,000”; and

4           (2) by striking “\$100,000.” and inserting “the  
5           greater of 1 percent of the person’s annual income  
6           or annual operating income or \$1,000,000”.

7 **SEC. 8. SAFER TANK CARS.**

8           (a) PHASE-OUT SCHEDULE.—Beginning on May 1,  
9 2025, a rail carrier may not use DOT–111 specification  
10 railroad tank cars that do not comply with DOT–117,  
11 DOT–117P, or DOT–117R specification requirements, as  
12 in effect on the date of enactment of this Act, to transport  
13 Class 3 flammable liquids regardless of the composition  
14 of the train consist.

15           (b) CONFORMING REGULATORY AMENDMENTS.—

16           (1) IN GENERAL.—The Secretary—

17                   (A) shall immediately remove or revise the  
18                   date-specific deadlines in any applicable regula-  
19                   tions or orders to the extent necessary to con-  
20                   form with the requirement under subsection (a);  
21                   and

22                   (B) may not enforce any date-specific  
23                   deadlines or requirements that are inconsistent  
24                   with the requirement under subsection (a).

1           (2) RULE OF CONSTRUCTION.—Except as re-  
2           quired under paragraph (1), nothing in this section  
3           may be construed to require the Secretary to issue  
4           regulations to implement this section.

5 **SEC. 9. HAZARDOUS MATERIALS TRAINING FOR FIRST RE-**  
6 **SPONDERS.**

7           (a) ANNUAL REGISTRATION FEE.—Section 5108(g)  
8           of title 49, United States Code, is amended by adding at  
9           the end the following:

10           “(4) ADDITIONAL FEE FOR CLASS I RAIL CAR-  
11           RIERS.—In addition to the fees collected pursuant to  
12           paragraphs (1) and (2), the Secretary shall establish  
13           and annually impose and collect from each Class I  
14           rail carrier a fee in an amount equal to  
15           \$1,000,000.”.

16           (b) ASSISTANCE FOR LOCAL EMERGENCY RESPONSE  
17           TRAINING.—Section 5116(j)(1)(A) of title 49, United  
18           States Code, is amended—

19           (1) by striking “liquids” and inserting “mate-  
20           rials”; and

21           (2) in paragraph (3), by amending subpara-  
22           graph (A) to read as follows:

23           “(A) IN GENERAL.—To carry out the  
24           grant program established pursuant to para-



1 graph (1),the Secretary may expend, during  
2 each fiscal year—

3 “(i) the amounts collected pursuant to  
4 section 5108(g)(4); and

5 “(ii) any amounts recovered during  
6 such fiscal year from grants awarded  
7 under this section during a prior fiscal  
8 year.”.

9 (c) SUPPLEMENTAL TRAINING GRANTS.—Section  
10 5128(b)(4) of title 49, United States Code is amended by  
11 striking “\$2,000,000” and inserting “\$4,000,000”.

12 **SEC. 10. RAIL SAFETY INFRASTRUCTURE RESEARCH AND**  
13 **DEVELOPMENT GRANTS.**

14 (a) RESEARCH REQUIREMENT.—The Administrator  
15 of the Federal Railroad Administration shall award  
16 grants, in accordance with section 22907 of title 49,  
17 United States Code, and the restrictions and limitations  
18 on eligibility for Class I railroads under such section, for  
19 research and development of wayside defect detectors to  
20 better prevent the derailment of trains transporting haz-  
21 ardous materials.

22 (b) FUNDING.—

23 (1) APPROPRIATION.—There is appropriated to  
24 the Federal Railroad Administration, out of any  
25 funds in the Treasury not otherwise appropriated,

1       \$22,000,000, which shall be used for the grants au-  
2       thorized under subsection (a) for the improvement  
3       and research of wayside defect detectors and the  
4       prevention of derailments of trains containing haz-  
5       ardous materials.

6               (2) AVAILABILITY OF FUNDING.—Amounts ap-  
7       propriated under this subsection shall remain avail-  
8       able until expended

9       **SEC. 11. APPROPRIATIONS FOR TANK CAR RESEARCH AND**  
10               **DEVELOPMENT.**

11       There is appropriated to the Pipeline and Hazardous  
12       Materials Safety Administration, out of any funds in the  
13       Treasury not otherwise appropriated, \$5,000,000, which  
14       shall be used for expenses related to the development of—

15               (1) stronger, safer tank cars and valves for  
16       tank cars; and

17               (2) other tank car safety features.

○