

110TH CONGRESS  
1ST SESSION

# H. R. 534

To provide for the security and safety of rail and rail transit transportation systems, and for other purposes.

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## IN THE HOUSE OF REPRESENTATIVES

JANUARY 17, 2007

Mr. LYNCH introduced the following bill; which was referred to the Committee on Homeland Security, and in addition to the Committee on Transportation and Infrastructure, 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 provide for the security and safety of rail and rail transit transportation systems, 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       “Rail Transit Security and Safety Act of 2007”.

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. Rail transportation security risk assessment.
- Sec. 3. Federal Rail Security Managers.
- Sec. 4. Study of foreign rail transport security programs.

See. 5. Fire and life-safety improvements.  
See. 6. Security assistance grants.  
See. 7. Rail security research and development.  
See. 8. Whistleblower protections for rail employees.  
See. 9. Authorization of appropriations.  
See. 10. Rail worker emergency training.

1 **SEC. 2. RAIL TRANSPORTATION SECURITY RISK ASSESS-**  
2 **MENT.**

3 (a) IN GENERAL.—

4 (1) VULNERABILITY ASSESSMENT.—The Under  
5 Secretary for Border and Transportation Security of  
6 the Department of Homeland Security, in consulta-  
7 tion with the Secretary of Transportation, shall com-  
8 plete a vulnerability assessment of freight and pas-  
9 senger rail transportation (encompassing railroad  
10 carriers, as that term is defined in section 20102(2)  
11 of title 49, United States Code). The assessment  
12 shall include—

13 (A) identification and evaluation of critical  
14 assets and infrastructures;

15 (B) identification of threats to those assets  
16 and infrastructures;

17 (C) identification of vulnerabilities that are  
18 specific to the transportation of hazardous ma-  
19 terials via railroad; and

20 (D) identification of security weaknesses in  
21 passenger and cargo security, transportation in-  
22 frastructure, protection systems, procedural

1           policies, communications systems, employee  
2           training, emergency response planning, and any  
3           other area identified by the assessment.

4           (2) EXISTING PRIVATE AND PUBLIC SECTOR  
5           EFFORTS.—The assessment shall take into account  
6           actions taken or planned by both public and private  
7           entities to address identified security issues and as-  
8           sess the effective integration of such actions.

9           (3) RECOMMENDATIONS.—Based on the assess-  
10          ment conducted under paragraph (1), the Under  
11          Secretary, in consultation with the Secretary of  
12          Transportation, shall develop prioritized rec-  
13          ommendations for improving rail security, including  
14          any recommendations the Under Secretary has for—

15           (A) improving the security of rail tunnels,  
16           rail bridges, rail switching areas, other rail in-  
17           frastructure and facilities, information systems,  
18           and other areas identified by the Under Sec-  
19           retary as posing significant rail-related risks to  
20           public safety and the movement of interstate  
21           commerce, taking into account the impact that  
22           any proposed security measure might have on  
23           the provision of rail service;

24           (B) deploying weapon detection equipment;

1 (C) training employees in terrorism pre-  
2 vention, passenger evacuation, and response ac-  
3 tivities;

4 (D) conducting public outreach campaigns  
5 on passenger railroads;

6 (E) deploying surveillance equipment; and

(F) identifying the immediate and long-term economic impact of measures that may be required to address those risks.

10 (4) PLANS.—The report required by subsection  
11 (c) shall include—

12 (A) a plan, developed in consultation with  
13 the freight and intercity passenger railroads,  
14 and State and local governments, for the Fed-  
15 eral Government to provide increased security  
16 support at high or severe threat levels of alert;  
17 and

18 (B) a plan for coordinating rail security  
19 initiatives undertaken by the public and private  
20 sectors.

21 (b) CONSULTATION.—In carrying out the assessment  
22 required by subsection (a), the Under Secretary for Bor-  
23 der and Transportation Security of the Department of  
24 Homeland Security shall consult with rail management,  
25 rail labor, owners or lessors of rail cars used to transport

1 hazardous materials, shippers of hazardous materials,  
2 public safety officials (including those within other agen-  
3 cies and offices within the Department of Homeland Secu-  
4 rity) and other relevant parties.

5 (c) REPORT.—

6 (1) CONTENTS.—Within 90 days after the date  
7 of enactment of this Act, the Under Secretary shall  
8 transmit to the Senate Committee on Commerce,  
9 Science, and Transportation and the House of Rep-  
10 resentatives Committee on Transportation and In-  
11 frastructure a report containing the assessment and  
12 prioritized recommendations required by subsection  
13 (a) and an estimate of the cost to implement such  
14 recommendations.

15 (2) FORMAT.—The Under Secretary may sub-  
16 mit the report in both classified and redacted for-  
17 mats if the Under Secretary determines that such  
18 action is appropriate or necessary.

19 (d) ALLOCATIONS.—The assessment required by sub-  
20 section (a) shall be used as the basis for allocating grant  
21 funds under section 6, unless the Secretary of Homeland  
22 Security determines that an adjustment is necessary to re-  
23 spond to an urgent threat or other significant factors.

24 (e) 2-YEAR UPDATES.—The Under Secretary, in con-  
25 sultation with the Secretary of Transportation, shall up-

1 date the assessment and recommendations every 2 years  
2 and transmit a report, which may be submitted in both  
3 classified and redacted formats, to the Committees named  
4 in subsection (c)(1), containing the updated assessment  
5 and recommendations.

6 (f) AUTHORIZATION OF APPROPRIATIONS.—There  
7 are authorized to be appropriated to the Under Secretary  
8 for Border and Transportation Security of the Depart-  
9 ment of Homeland Security \$5,000,000 for fiscal year  
10 2008 for the purpose of carrying out this section.

**11 SEC. 3. FEDERAL RAIL SECURITY MANAGERS.**

12 (a) ESTABLISHMENT, DESIGNATION, AND STA-  
13 TIONING.—The Under Secretary for Border and Trans-  
14 portation Security of the Department of Homeland Secu-  
15 rity shall establish the position of Federal Rail Security  
16 Manager within each of at least 8 regional areas, as di-  
17 vided on a geographical basis. The Under Secretary shall  
18 designate individuals as Managers for, and station those  
19 Managers within, those regions.

20 (b) DUTIES AND POWERS.—The Manager within  
21 each region shall—

22 (1) receive intelligence information related to  
23 rail and mass transit security;

7 (4) coordinate efforts related to rail security  
8 with State and local law enforcement; and

9 (5) coordinate with other Managers.

10 SEC. 4. STUDY OF FOREIGN RAIL TRANSPORT SECURITY  
11 PROGRAMS.

12 (a) REQUIREMENT FOR STUDY.—Within one year  
13 after the date of enactment of this Act, the Comptroller  
14 General shall complete a study of the rail passenger trans-  
15 portation security programs that are carried out for rail  
16 transportation systems in Japan, member nations of the  
17 European Union, and other foreign countries.

18 (b) PURPOSE.—The purpose of this study shall be to  
19 identify effective rail transportation security measures  
20 that are in use in foreign rail transportation systems, in-  
21 cluding innovative measures and screening procedures de-  
22 termined effective.

23 (c) REPORT.—The Comptroller General shall submit  
24 a report on the results of this study to the Senate Com-  
25 mittee on Commerce, Science, and Transportation and the

1 House of Representatives Committee on Transportation  
2 and Infrastructure. The report shall include the Com-  
3 troller General's assessment regarding whether it is fea-  
4 sible to implement within the United States any of the  
5 same or similar security measures that are determined ef-  
6 fective under the study.

7 (d) AUTHORIZATION OF APPROPRIATIONS.—There  
8 are authorized to be appropriated \$1,000,000 for fiscal  
9 year 2008 to carry out the provisions of this section, which  
10 shall remain available until expended.

**11 SEC. 5. FIRE AND LIFE-SAFETY IMPROVEMENTS.**

12 (a) LIFE-SAFETY NEEDS.—The Secretary of Trans-  
13 portation is authorized to make grants to Amtrak for the  
14 purpose of making fire and life-safety improvements to  
15 tunnels on the Northeast Corridor in New York, New  
16 York, Baltimore, Maryland, Washington, District of Co-  
17 lumbia, and Boston, Massachusetts.

18 (b) AUTHORIZATION OF APPROPRIATIONS.—There  
19 are authorized to be appropriated to the Secretary of  
20 Transportation for the purposes of carrying out subsection  
21 (a) the following amounts:

22 (1) For the 6 New York tunnels to provide ven-  
23 tilation, electrical, and fire safety technology up-  
24 grades, emergency communication and lighting sys-

1       tems, and emergency access and egress for pas-  
2       sengers—

7 and

8 (E) \$100,000,000 for fiscal year 2012.

22 (A) \$8,000,000 for fiscal year 2008;  
23 (B) \$8,000,000 for fiscal year 2009;  
24 (C) \$8,000,000 for fiscal year 2010;  
25 (D) \$8,000,000 for fiscal year 2011; and

1 (E) \$8,000,000 for fiscal year 2012.

(4) For the Boston, Massachusetts, Back Bay tunnels to improve ventilation, communication, lighting, and passenger egress upgrades—

5 (A) \$8,000,000 for fiscal year 2008;

6 (B) \$8,000,000 for fiscal year 2009;

7 (C) \$8,000,000 for fiscal year 2010;

8 (D) \$8,000,000 for fiscal year 2011; and

9 (E) \$8,000,000 for fiscal year 2012.

10 (c) INFRASTRUCTURE UPGRADES.—There are au-  
11 thorized to be appropriated to the Secretary of Transpor-  
12 tation for fiscal year 2008 \$3,000,000 for the preliminary  
13 design of options for a new tunnel on a different alignment  
14 to augment the capacity of the existing Baltimore tunnels.

15 (d) AVAILABILITY OF APPROPRIATED FUNDS.—

16 Amounts appropriated pursuant to this section shall re-  
17 main available until expended.

18 (e) PLAN REQUIRED.—The Secretary may not make  
19 amounts available to Amtrak for obligation or expenditure  
20 under subsection (a)—

1 management plan prepared by Amtrak addressing  
2 project budget, construction schedule, recipient staff  
3 organization, document control and record keeping,  
4 change order procedure, quality control and assur-  
5 ance, periodic status reports, and such other matter  
6 the Secretary deems appropriate;

7 (f) FINANCIAL CONTRIBUTION FROM OTHER TUN-  
8 NEL USERS.—The Secretary shall, taking into account the  
9 need for timely completion of all life-safety portions of the  
10 tunnel projects described in subsection (a)—

11 (1) consider the extent to which rail carriers  
12 other than Amtrak use the tunnels;

13 (2) consider the feasibility of seeking a financial  
14 contribution from those other rail carriers toward  
15 the costs of the projects; and

16 (3) seek financial contributions or commitments  
17 from such other rail carriers at levels reflecting the  
18 extent of their use of the tunnels.

19 **SEC. 6. SECURITY ASSISTANCE GRANTS.**

20 (a) CAPITAL ASSISTANCE PROGRAM.—

21 (1) IN GENERAL.—The Secretary of Homeland  
22 Security shall award grants directly to public trans-  
23 portation agencies for allowable capital security im-  
24 provements based on the recommendations estab-  
25 lished under section 2(a)(3).

1 (2) ALLOWABLE USE OF FUNDS.—Grants  
2 awarded under paragraph (1) may be used for—  
3 (A) tunnel protection systems;  
4 (B) perimeter protection systems;  
5 (C) redundant critical operations control  
6 systems;  
7 (D) chemical, biological, radiological, or ex-  
8 plosive detection systems;  
9 (E) surveillance equipment;  
10 (F) communications equipment;  
11 (G) emergency response equipment;  
12 (H) fire suppression and decontamination  
13 equipment;  
14 (I) global positioning or automated vehicle  
15 locator type system equipment;  
16 (J) evacuation improvements; and  
17 (K) other capital safety improvements.

18 (b) OPERATIONAL SECURITY ASSISTANCE PRO-  
19 GRAM.—  
20 (1) IN GENERAL.—The Secretary of Homeland  
21 Security shall award grants directly to public trans-  
22 portation agencies for allowable operational security  
23 improvements based on the recommendations estab-  
24 lished under section 2(a)(3).

7 (B) live or simulated drills;

8 (C) public awareness campaigns for en-  
9 hanced public transit security;

10 (D) canine patrols for chemical, biological,  
11 or explosives detection;

12 (E) overtime reimbursement for enhanced  
13 security personnel during significant national  
14 and international public events; and

15 (F) other appropriate security improve-  
16 ments.

17 (c) CONGRESSIONAL NOTIFICATION.—Not later than  
18 3 days before any grant is awarded under this section,  
19 the Secretary of Homeland Security shall notify the Com-  
20 mittee on Transportation and Infrastructure of the House  
21 of Representatives of the intent to award such grant.

22 (d) PROCEDURES FOR GRANT AWARD.—The Sec-  
23 retary shall prescribe procedures and schedules for the  
24 awarding of grants under this section, including applica-  
25 tion and qualification procedures, and a record of decision

1 on applicant eligibility. The procedures shall include the  
2 execution of a grant agreement between the grant recipi-  
3 ent and the Secretary. The Secretary shall issue a final  
4 rule establishing the procedures not later than 90 days  
5 after the date of enactment of this Act.

6 (e) TRANSIT AGENCY RESPONSIBILITIES.—Each  
7 public transportation agency that receives a grant under  
8 this section shall—

9 (1) identify a security coordinator to coordinate  
10 security improvements;

11 (2) develop a comprehensive plan that dem-  
12 onstrates the agency's capacity for operating and  
13 maintaining the equipment purchased under this  
14 subsection;

15 (3) develop a comprehensive training plan that  
16 demonstrates the agency's capacity to train all em-  
17 ployees in emergency response and security aware-  
18 ness; and

19 (4) report annually to the Department of  
20 Homeland Security on the use of grant funds re-  
21 ceived under this section.

22 (f) RETURN OF MISSPENT GRANT FUNDS.—If the  
23 Secretary of Homeland Security determines that a grantee  
24 used any portion of the grant funds received under this  
25 section for a purpose other than allowable uses specified

1 for that grant under this section, the grantee shall return  
2 any amount so used to the Treasury of the United States.

3 **SEC. 7. RAIL SECURITY RESEARCH AND DEVELOPMENT.**

4 (a) ESTABLISHMENT OF RESEARCH AND DEVELOP-  
5 MENT PROGRAM.—The Under Secretary for Border and  
6 Transportation Security of the Department of Homeland  
7 Security, in conjunction with the Secretary of Transpor-  
8 tation, shall carry out a research and development pro-  
9 gram for the purpose of improving freight and intercity  
10 passenger rail security, including research and develop-  
11 ment projects to—

12 (1) reduce the vulnerability of passenger trains,  
13 stations, infrastructure, and equipment to explosives;

14 (2) test new emergency response techniques and  
15 technologies;

16 (3) research chemical, biological, radiological, or  
17 explosive detection systems;

18 (4) research imaging technologies;

19 (5) research technologies for sealing rail cars;  
20 and

21 (6) support enhanced security for transpor-  
22 tation of hazardous materials by rail, including—

23 (A) technologies to detect a breach in a  
24 tank car and transit information about the in-  
25 tegrity of tank cars to the train crew;

1 (B) research to improve tank car integrity,  
2 with a focus on tank cars that carry toxic-inha-  
3 lation chemicals; and

4 (C) techniques to transfer hazardous mate-  
5 rials from rail cars that are damaged or other-  
6 wise represent an unreasonable risk to human  
7 life or public safety.

16 SEC. 8. WHISTLEBLOWER PROTECTIONS FOR RAIL EM-  
17 PLOYEES.

18 (a) IN GENERAL.—No company involved in rail  
19 transportation (encompassing railroad carriers, as that  
20 term is defined in section 20102(2) of title 49, United  
21 States Code) or any officer, employee, contractor, subcon-  
22 tractor, or agent of such company, may discharge, demote,  
23 suspend, threaten, harass, hold liable, or discriminate in  
24 any way against an employee because of any lawful act  
25 done by the employee—

10 (B) any Member of Congress or any com-  
11 mittee of Congress; or

12 (C) a person with supervisory authority  
13 over the employee (or such other person work-  
14 ing for the employer who has the authority to  
15 investigate, discover, or terminate misconduct);

16 or

20 (b) ENFORCEMENT ACTION.—

3 (B) if the Secretary of Labor has not  
4 issued a final decision within 180 days of the  
5 filing of the complaint and there is no showing  
6 that such delay is due to bad faith of the claim-  
7 ant, bringing an action at law or equity for de  
8 novo review in the appropriate district court of  
9 the United States, which shall have jurisdiction  
10 over such action without regard to the amount  
11 in controversy.

## 12 (2) PROCEDURE.—

13 (A) IN GENERAL.—An action brought  
14 under paragraph (1)(A) shall be governed by  
15 the rules and procedures set forth in section  
16 42121(b)(1) of title 49, United States Code.

17 (B) EXCEPTION.—Notification made under  
18 section 42121(b)(1) of title 49, United States  
19 Code, shall be made to the person named in the  
20 complaint and to the employer.

21 (C) BURDEN OF PROOF.—An action  
22 under paragraph (1)(B) shall be governed by  
23 the legal burdens of proof set forth in section  
24 42121(b) of title 49, United States Code.

## 5 (c) REMEDIES.—

11 (A) reinstatement with the same seniority  
12 status that the employee would have had, but  
13 for the discrimination;

14 (B) the amount of back pay, with interest;  
15 and

16 (C) the compensation for any special dam-  
17 ages sustained as a result of the discrimination,  
18 including litigation costs, expert witness fees,  
19 and reasonable attorney's fees.

20 (d) RIGHTS RETAINED BY EMPLOYEE.—Nothing in  
21 this section shall be deemed to diminish the rights, privi-  
22 leges, or remedies of any employee under any Federal or  
23 State law, or under any collective bargaining agreement.

1 **SEC. 9. AUTHORIZATION OF APPROPRIATIONS.**

2 (a) CAPITAL SECURITY ASSISTANCE PROGRAM.—

3 There are authorized to be appropriated \$2,500,000,000  
4 for fiscal year 2008 to carry out the provisions of section  
5 6(a), which shall remain available until expended.

6 (b) OPERATIONAL SECURITY ASSISTANCE PRO-

7 GRAM.—There are authorized to be appropriated to carry  
8 out the provisions of section 6(b)—

9 (1) \$100,000,000 for fiscal year 2008;

10 (2) \$750,000,000 for fiscal year 2009; and

11 (3) \$500,000,000 for fiscal year 2010.

12 (c) RAIL SECURITY RESEARCH AND DEVELOP-

13 MENT.—There are authorized to be appropriated  
14 \$50,000,000 for fiscal year 2008 to carry out the provi-  
15 sions of section 7(a), and \$50,000,000 for fiscal year 2008  
16 to carry out the provisions of section 7(b), which shall re-  
17 main available until expended.18 **SEC. 10. RAIL WORKER EMERGENCY TRAINING.**19 (a) RAIL WORKER EMERGENCY TRAINING  
20 GRANTS.—21 (1) RAIL WORKER EMERGENCY TRAINING  
22 GRANTS.—The Secretary of Homeland Security, in  
23 coordination with the Secretary of Transportation, is  
24 authorized to make grants to railroad carriers for  
25 costs incurred in compliance with subsection (c).

1 (2) AUTHORIZATION OF APPROPRIATIONS.—

2 There are authorized to be appropriated to the Sec-  
3 retary of Homeland Security \$100,000,000 to carry  
4 out the purposes of this section. Amounts appro-  
5 priated pursuant to this paragraph shall remain  
6 available until expended.

7 (b) RAIL WORKER EMERGENCY TRAINING PRO-  
8 GRAM.—

22 (A) Critical infrastructure and equipment  
23 security inspection.

(B) Hazardous material storage, transport, and monitoring.

1 (C) Evacuation procedures in the event of  
2 fire, explosion, natural disaster, and other  
3 emergencies.

4 (D) Unauthorized rail yard access and rail  
5 yard security.

6 (E) Procedure for reporting suspicious ac-  
7 tivity, critical infrastructure, rail yard, and  
8 equipment security breaches, hazardous mate-  
9 rial storage or transport safety breaches, and  
10 other security or safety breaches.

11 (F) Notification of law enforcement, emergency response, and other appropriate officials  
12 in the event of a terrorist attack, natural disaster, hazardous material explosion, and other  
13 emergencies.

16 (G) Rail worker notification and training  
17 on railroad security plans, including a railroad  
18 carrier's threat level identification system, em-  
19 ployee notification when such levels change, em-  
20 ployee roles and responsibilities regarding the  
21 security plan, and lines of communication and  
22 coordination in the event of an emergency.

23 (H) Passenger communication and coordi-  
24 nation in the event of an emergency.

(I) Live situational training exercises regarding various emergency scenarios, including terrorist attacks, natural disasters, and hazardous material explosions.

5 (J) Protective equipment and device use.

## 6 (K) Locomotive cab securement.

7 (L) Background, skills, and “fitness for  
8 duty” checks for railroad contractors, sub-  
9 contractors, and their employees equal to those  
10 applicable to railroad employees.

11 (M) Distress codes for use by train crews,  
12 bridge tenders, and others as the Secretary of  
13 Homeland Security considers appropriate.

14 (N) Appropriate responses to defend one-  
15 self.

16 (O) Any other subject the Secretary of  
17 Homeland Security considers appropriate.

1 under this paragraph, the Secretary shall review the  
2 program and approve it or require the railroad car-  
3 rier to make any revisions the Secretary considers  
4 necessary for the program to meet the guideline re-  
5 quirements.

6 (4) TRAINING.—Not later than 1 year after the  
7 Secretary of Homeland Security approves the train-  
8 ing program developed by a railroad carrier under  
9 this subsection, the railroad carrier shall complete  
10 the training of all rail workers in accordance with  
11 that program.

12 (5) UPDATES.—The Secretary of Homeland Se-  
13 curity shall update the training guidelines issued  
14 under paragraph (1) from time to time to reflect  
15 new or different security threats, and shall require  
16 railroad carriers to revise their programs accordingly  
17 and provide additional training to their rail workers.  
18 Not later than 60 days after the Secretary of Home-  
19 land Security notifies railroad carriers to revise their  
20 programs to reflect updated guidelines issued by the  
21 Secretary under this subsection, each railroad car-  
22 rier shall make all required revisions and submit  
23 their revised emergency training program to the Sec-  
24 retary of Homeland Security for approval. Not later  
25 than 60 days after receiving a railroad carrier's re-

1 vised program under this paragraph, the Secretary  
2 shall review the program and approve it or require  
3 the railroad carrier to make any revisions the Sec-  
4 retary considers necessary for the program to meet  
5 updated guideline requirements. Not later than 180  
6 days after the Secretary approves the revised train-  
7 ing program developed by a railroad carrier under  
8 this paragraph, the railroad carrier shall complete  
9 the training of all rail workers in accordance with  
10 the Secretary's updated guidelines.

11 (c) NONCOMPLIANCE.— The Secretary of Homeland  
12 Security may issue a letter of noncompliance to any rail  
13 carrier that has failed to comply with the obligations im-  
14 posed by this section. Any such letters issued shall be  
15 transmitted to Congress and published in the Federal  
16 Register.

17 (d) DEFINITIONS.—For purposes of this section:

18 (1) APPROPRIATE RAIL ENTITIES.—The term  
19 “appropriate rail entities” means freight and pas-  
20 senger railroad carriers, nonprofit employee organi-  
21 zations representing rail workers, nonprofit employee  
22 organizations representing emergency responders,  
23 owners or lessors of rail cars used to transport haz-  
24 ardous materials, shippers of hazardous materials,  
25 manufacturers of rail tank cars, State Departments

1 of Transportation, public safety officials, and other  
2 relevant parties.

3 (2) RAILROAD.—The term “railroad” has the  
4 meaning given that term in section 20102(1) of title  
5 49, United States Code.

6 (3) RAILROAD CARRIER.—The term “railroad  
7 carrier” has the meaning given that term in section  
8 20102(2) of title 49, United States Code.

9 (4) RAIL WORKER.—The term “rail worker” in-  
10 cludes any employee of a railroad carrier, or of a  
11 railroad carrier contractor or subcontractor, who—

12 (A) inspects, tests, maintains, or repairs  
13 brakes, other mechanical systems or compo-  
14 nents, or safety appliances on railroad cars or  
15 locomotives;

16 (B) is engaged in the operation of any  
17 train, including an employee that performs the  
18 duties of a hostler;

19 (C) dispatches, reports, transmits, receives,  
20 or delivers orders pertaining to train move-  
21 ments via telegraph, telephone, radio, or any  
22 other electrical or mechanical device;

23 (D) installs, repairs, tests, or maintains  
24 signal systems;

○