

ingly and provide additional training as necessary to its frontline employees within a reasonable time after the regulations are updated.

**(e) National Training Program**

The Secretary shall ensure that the training program developed under subsection (a) is a component of the National Training Program established under section 748 of this title.

**(f) Reporting requirements**

Not later than 2 years after the date of regulation issuance, the Secretary shall review implementation of the training program of a representative sample of railroad carriers and railroad frontline employees, and report to the appropriate congressional committees on the number of reviews conducted and the results of such reviews. The Secretary may submit the report in both classified and redacted formats as necessary.

**(g) Other employees**

The Secretary shall issue guidance and best practices for a railroad shipper employee security program containing the elements listed under subsection (c).

(Pub. L. 110-53, title XV, § 1517, Aug. 3, 2007, 121 Stat. 439.)

**§ 1168. Railroad security research and development**

**(a) Establishment of research and development program**

The Secretary, acting through the Under Secretary for Science and Technology and the Administrator of the Transportation Security Administration, shall carry out a research and development program for the purpose of improving the security of railroad transportation systems.

**(b) Eligible projects**

The research and development program may include projects—

(1) to reduce the vulnerability of passenger trains, stations, and equipment to explosives and hazardous chemical, biological, and radioactive substances, including the development of technology to screen passengers in large numbers at peak commuting times with minimal interference and disruption;

(2) to test new emergency response and recovery techniques and technologies, including those used at international borders;

(3) to develop improved railroad security technologies, including—

(A) technologies for sealing or modifying railroad tank cars;

(B) automatic inspection of railroad cars;

(C) communication-based train control systems;

(D) emergency response training, including training in a tunnel environment;

(E) security and redundancy for critical communications, electrical power, computer, and train control systems; and

(F) technologies for securing bridges and tunnels;

(4) to test wayside detectors that can detect tampering;

(5) to support enhanced security for the transportation of security-sensitive materials by railroad;

(6) to mitigate damages in the event of a cyber attack; and

(7) to address other vulnerabilities and risks identified by the Secretary.

**(c) Coordination with other research initiatives**

The Secretary—

(1) shall ensure that the research and development program is consistent with the National Strategy for Railroad Transportation Security developed under section 1161 of this title and any other transportation security research and development programs required by this Act;

(2) shall, to the extent practicable, coordinate the research and development activities of the Department with other ongoing research and development security-related initiatives, including research being conducted by—

(A) the Department of Transportation, including University Transportation Centers and other institutes, centers, and simulators funded by the Department of Transportation;

(B) the National Academy of Sciences;

(C) the Technical Support Working Group;

(D) other Federal departments and agencies; and

(E) other Federal and private research laboratories, research entities, and universities and institutions of higher education, including Historically Black Colleges and Universities, Hispanic Serving Institutions, or Indian Tribally Controlled Colleges and Universities;

(3) shall carry out any research and development project authorized by this section through a reimbursable agreement with an appropriate Federal agency, if the agency—

(A) is currently sponsoring a research and development project in a similar area; or

(B) has a unique facility or capability that would be useful in carrying out the project;

(4) may award grants, or enter into cooperative agreements, contracts, other transactions, or reimbursable agreements to the entities described in paragraph (2) and the eligible grant recipients under section 1163 of this title; and

(5) shall make reasonable efforts to enter into memoranda of understanding, contracts, grants, cooperative agreements, or other transactions with railroad carriers willing to contribute both physical space and other resources.

**(d) Privacy and civil rights and civil liberties issues**

**(1) Consultation**

In carrying out research and development projects under this section, the Secretary shall consult with the Chief Privacy Officer of the Department and the Officer for Civil Rights and Civil Liberties of the Department as appropriate and in accordance with section 142 of this title.

**(2) Privacy impact assessments**

In accordance with sections 142 and 345 of this title, the Chief Privacy Officer shall conduct privacy impact assessments and the Officer for Civil Rights and Civil Liberties shall conduct reviews, as appropriate, for research and development initiatives developed under this section that the Secretary determines could have an impact on privacy, civil rights, or civil liberties.

**(e) Authorization of appropriations****(1) In general**

Out of funds appropriated pursuant to section 114(w)<sup>1</sup> of title 49, there shall be made available to the Secretary to carry out this section—

- (A) \$33,000,000 for fiscal year 2008;
- (B) \$33,000,000 for fiscal year 2009;
- (C) \$33,000,000 for fiscal year 2010; and
- (D) \$33,000,000 for fiscal year 2011.

**(2) Period of availability**

Such sums shall remain available until expended.

(Pub. L. 110–53, title XV, § 1518, Aug. 3, 2007, 121 Stat. 441.)

**Editorial Notes****REFERENCES IN TEXT**

This Act, referred to in subsec. (c)(1), is Pub. L. 110–53, Aug. 3, 2007, 121 Stat. 266, known as the Implementing Recommendations of the 9/11 Commission Act of 2007, which enacted this chapter and enacted and amended numerous other sections and notes in the Code. For complete classification of this Act to the Code, see Short Title of 2007 Amendment note set out under section 101 of this title and Tables.

Section 114(w) of title 49, referred to in subsec. (e)(1), was redesignated section 114(v) of title 49 by Pub. L. 115–254, div. K, § 1904(b)(1)(I), Oct. 5, 2018, 132 Stat. 3545.

**§ 1169. Railroad tank car security testing****(a) Railroad tank car vulnerability assessment****(1) Assessment**

The Secretary shall assess the likely methods of a deliberate terrorist attack against a railroad tank car used to transport toxic-inhalation-hazard materials, and for each method assessed, the degree to which it may be successful in causing death, injury, or serious adverse effects to human health, the environment, critical infrastructure, national security, the national economy, or public welfare.

**(2) Threats**

In carrying out paragraph (1), the Secretary shall consider the most current threat information as to likely methods of a successful terrorist attack on a railroad tank car transporting toxic-inhalation-hazard materials, and may consider the following:

- (A) Explosive devices placed along the tracks or attached to a railroad tank car.
- (B) The use of missiles, grenades, rockets, mortars, or other high-caliber weapons against a railroad tank car.

**(3) Physical testing**

In developing the assessment required under paragraph (1), the Secretary shall conduct

physical testing of the vulnerability of railroad tank cars used to transport toxic-inhalation-hazard materials to different methods of a deliberate attack, using technical information and criteria to evaluate the structural integrity of railroad tank cars.

**(4) Report**

Not later than 30 days after the completion of the assessment under paragraph (1), the Secretary shall provide to the appropriate congressional committees a report, in the appropriate format, on such assessment.

**(b) Railroad tank car dispersion modeling****(1) In general**

The Secretary, acting through the National Infrastructure Simulation and Analysis Center, shall conduct an air dispersion modeling analysis of release scenarios of toxic-inhalation-hazard materials resulting from a terrorist attack on a loaded railroad tank car carrying such materials in urban and rural environments.

**(2) Considerations**

The analysis under this subsection shall take into account the following considerations:

(A) The most likely means of attack and the resulting dispersal rate.

(B) Different times of day, to account for differences in cloud coverage and other atmospheric conditions in the environment being modeled.

(C) Differences in population size and density.

(D) Historically accurate wind speeds, temperatures, and wind directions.

(E) Differences in dispersal rates or other relevant factors related to whether a railroad tank car is in motion or stationary.

(F) Emergency response procedures by local officials.

(G) Any other considerations the Secretary believes would develop an accurate, plausible dispersion model for toxic-inhalation-hazard materials released from a railroad tank car as a result of a terrorist act.

**(3) Consultation**

In conducting the dispersion modeling under paragraph (1), the Secretary shall consult with the Secretary of Transportation, hazardous materials experts, railroad carriers, nonprofit employee labor organizations representing railroad employees, appropriate State, local, and tribal officials, and other Federal agencies, as appropriate.

**(4) Information sharing**

Upon completion of the analysis required under paragraph (1), the Secretary shall share the information developed with the appropriate stakeholders, given appropriate information protection provisions as may be required by the Secretary.

**(5) Report**

Not later than 30 days after completion of all dispersion analyses under paragraph (1), the Secretary shall submit to the appropriate congressional committees a report detailing

<sup>1</sup> See References in Text note below.