

107TH CONGRESS
2^D SESSION

S. 3121

To authorize the Secretary of State to undertake measures in support of international programs to detect and prevent acts of nuclear or radiological terrorism, to authorize appropriations to the Department of State to carry out those measures, and for other purposes.

IN THE SENATE OF THE UNITED STATES

OCTOBER 16, 2002

Mr. BIDEN (for himself, Mr. LUGAR, Mr. DOMENICI, Mrs. CLINTON, Mr. GREGG, and Mr. SCHUMER) introduced the following bill; which was read twice and referred to the Committee on Foreign Relations

A BILL

To authorize the Secretary of State to undertake measures in support of international programs to detect and prevent acts of nuclear or radiological terrorism, to authorize appropriations to the Department of State to carry out those measures, 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.**

4 This Act may be cited as the “Nuclear and Radio-
5 logical Terrorism Threat Reduction Act of 2002”.

6 **SEC. 2. FINDINGS.**

7 Congress makes the following findings:

1 (1) It is feasible for terrorists to obtain and to
2 disseminate radioactive material using a radiological
3 dispersion device (RDD), or by emplacing discrete
4 radioactive sources in major public places.

5 (2) It is not difficult for terrorists to improvise
6 a nuclear explosive device of significant yield once
7 they have acquired the fissile material, highly en-
8 riched uranium, or plutonium, to fuel the weapon.

9 (3) An attack by terrorists using a radiological
10 dispersion device, lumped radioactive sources, an im-
11 provised nuclear device (IND), or a stolen nuclear
12 weapon is a plausible event.

13 (4) Such an attack could cause catastrophic
14 economic and social damage and could kill large
15 numbers of Americans.

16 (5) The first line of defense against both nu-
17 clear and radiological terrorism is preventing the ac-
18 quisition of radioactive sources, special nuclear ma-
19 terial, or nuclear weapons by terrorists.

20 **SEC. 3. DEFINITIONS.**

21 In this Act:

22 (1) **APPROPRIATE CONGRESSIONAL COMMIT-**
23 **TEES.**—The term “appropriate congressional com-
24 mittees” means the Committee on Foreign Relations

1 of the Senate and the Committee on International
2 Relations of the House of Representatives.

3 (2) BYPRODUCT MATERIAL.—The term “by-
4 product material” has the same meaning given the
5 term in section 11 e. of the Atomic Energy Act of
6 1954 (42 U.S.C. 2014(e)).

7 (3) IAEA.—The term “IAEA” means the
8 International Atomic Energy Agency.

9 (4) INDEPENDENT STATES OF THE FORMER SO-
10 VIET UNION.—The term “independent states of the
11 former Soviet Union” has the meaning given the
12 term in section 3 of the FREEDOM Support Act
13 (22 U.S.C. 5801).

14 (5) NUCLEAR EXPLOSIVE DEVICE.—The term
15 “nuclear explosive device” means any device, wheth-
16 er assembled or disassembled, that is designed to
17 produce an instantaneous release of an amount of
18 nuclear energy from special nuclear material that is
19 greater than the amount of energy that would be re-
20 leased from the detonation of one pound of trinitro-
21 toluene (TNT).

22 (6) RADIOLOGICAL DISPERSION DEVICE.—The
23 term “radiological dispersion device” is any device
24 meant to spread or disperse radioactive material by
25 the use of explosives or otherwise.

1 (7) RADIOACTIVE MATERIAL.—The term “ra-
2 dioactive material” means—

3 (A) source material and special nuclear
4 material, but does not include natural or de-
5 pleted uranium;

6 (B) nuclear by-product material;

7 (C) material made radioactive by bombard-
8 ment in an accelerator; and

9 (D) all refined isotopes of radium.

10 (8) RADIOACTIVE SOURCE.—The term “radio-
11 active source” means radioactive material that is
12 permanently sealed in a capsule or closely bonded
13 and includes any radioactive material released if the
14 source is leaking or stolen, but does not include any
15 material within the nuclear fuel cycle of a research
16 or power reactor.

17 (9) RADIOISOTOPE THERMAL GENERATOR.—
18 The term “radioisotope thermal generator” or
19 “RTG” means an electrical generator which derives
20 its power from the heat produced by the decay of a
21 radioactive source by the emission of alpha, beta, or
22 gamma radiation. The term does not include nuclear
23 reactors deriving their energy from the fission or fu-
24 sion of atomic nuclei.

1 (10) SECRETARY.—The term “Secretary”
2 means the Secretary of State.

3 (11) SOURCE MATERIAL.—The term “source
4 material” has the meaning given that term in sec-
5 tion 11 z. of the Atomic Energy Act of 1954 (42
6 U.S.C. 2014(z)).

7 (12) SPECIAL NUCLEAR MATERIAL.—The term
8 “special nuclear material” has the meaning given
9 that term in section 11 aa. of the Atomic Energy
10 Act of 1954 (42 U.S.C. 2014(aa)).

11 **SEC. 4. INTERNATIONAL REPOSITORIES.**

12 (a) AUTHORITY.—The Secretary, acting through the
13 United States Permanent Representative to the IAEA, is
14 authorized to propose that the IAEA conclude agreements
15 with up to five countries under which each country would
16 provide temporary secure storage for orphaned, unused,
17 surplus, or other radioactive sources other than special nu-
18 clear material, nuclear fuel, or spent nuclear fuel.

19 (b) VOLUNTARY CONTRIBUTIONS AUTHORIZED.—

20 (1) IN GENERAL.—The Secretary is authorized
21 to make a voluntary contribution to the IAEA to
22 fund the United States share of the program author-
23 ized by subsection (a) if the IAEA agrees to protect
24 sources under the standards of the United States or
25 IAEA code of conduct, whichever is stricter.

1 (2) FISCAL YEAR 2003.—The United States
2 share of the costs of the program described in sub-
3 section (a) is authorized to be 100 percent for fiscal
4 year 2003.

5 (c) TECHNICAL ASSISTANCE.—The Secretary is au-
6 thorized to provide the IAEA, through contracts with the
7 Department of Energy or the Nuclear Regulatory Com-
8 mission, with technical assistance to carry out the pro-
9 gram described in subsection (a).

10 (d) NONAPPLICABILITY OF NEPA.—The National
11 Environmental Policy Act shall not apply to any activity
12 conducted under this section.

13 (e) AUTHORIZATION OF APPROPRIATIONS.—

14 (1) IN GENERAL.—There are authorized to be
15 appropriated for the Department of State
16 \$5,000,000 for fiscal year 2003 and \$20,000,000 for
17 each fiscal year thereafter to carry out this section.

18 (2) AVAILABILITY OF FUNDS.—Amounts appro-
19 priated pursuant to paragraph (1) are authorized to
20 remain available until expended.

21 **SEC. 5. RADIOACTIVE SOURCE DISCOVERY, INVENTORY,**
22 **AND RECOVERY.**

23 (a) AUTHORITY.—The Secretary is authorized to
24 make United States voluntary contributions to the IAEA

1 to support a program to promote radioactive source dis-
2 covery, inventory, and recovery.

3 (b) AUTHORIZATION OF APPROPRIATIONS.—

4 (1) IN GENERAL.—There is authorized to be
5 appropriated to the Department of State \$5,000,000
6 for each of the fiscal years 2003 through 2012 to
7 carry out subsection (a).

8 (2) AVAILABILITY OF FUNDS.—Amounts appro-
9 priated pursuant to paragraph (1) are authorized to
10 remain available until expended.

11 **SEC. 6. RADIOISOTOPE THERMAL GENERATOR-POWERED**
12 **FACILITIES IN THE INDEPENDENT STATES OF**
13 **THE FORMER SOVIET UNION.**

14 (a) RTG POWER UNITS.—The Secretary is author-
15 ized to assist the Government of the Russian Federation
16 to substitute solar (or other non-nuclear) power sources
17 to replace RTG power units operated by the Russian Fed-
18 eration and other independent states of the former Soviet
19 Union in applications such as lighthouses in the Arctic,
20 remote weather stations, unattended sensors, and for pro-
21 viding electricity in remote locations. Any replacement
22 shall, to the maximum extent practicable, be based upon
23 tested technologies that have operated for at least one full
24 year in the environment where the replacement will be
25 used.

1 (b) ALLOCATION OF FUNDS.—Of the funds made
2 available to carry out this section, the Secretary may use
3 not more than 20 percent of the funds in any fiscal year
4 to replace dangerous RTG facilities that are similar to
5 those described in subsection (a) in countries other than
6 the independent states of the former Soviet Union.

7 (c) AUTHORIZATION OF APPROPRIATIONS.—

8 (1) IN GENERAL.—There is authorized to be
9 appropriated to the Department of State
10 \$10,000,000 for each of the fiscal years 2003, 2004,
11 and 2005 to carry out this section.

12 (2) AVAILABILITY OF FUNDS.—Amounts appro-
13 priated pursuant to paragraph (1) are authorized to
14 remain available until expended.

15 **SEC. 7. FOREIGN FIRST RESPONDERS.**

16 (a) IN GENERAL.—The Secretary is authorized to
17 conclude an agreement with a foreign country, or, acting
18 through the United States Permanent Representative to
19 the IAEA, to propose that the IAEA conclude an agree-
20 ment with that country, under which that country will
21 carry out a program to train first responders to—

22 (1) detect, identify, and characterize radioactive
23 material;

24 (2) understand the hazards posed by radioactive
25 contamination;

1 (3) understand the risks encountered at various
2 dose rates;

3 (4) enter contaminated areas safely and speed-
4 ily; and

5 (5) evacuate persons within a contaminated
6 area.

7 (b) UNITED STATES PARTICIPATION.—The Depart-
8 ment of State is hereby designated as the lead Federal
9 entity for cooperation with the IAEA in implementing sub-
10 section (a) within the United States. In carrying out ac-
11 tivities under this subsection the Secretary of State shall
12 take into account the findings of the threat assessment
13 report required by section 8 and the location of the interim
14 storage facilities under section 4.

15 (c) AUTHORIZATION OF APPROPRIATIONS.—

16 (1) IN GENERAL.—There are authorized to be
17 appropriated to the Department of State \$2,000,000
18 for fiscal year 2003, \$5,000,000 for fiscal year
19 2004, and \$5,000,000 for fiscal year 2005 to carry
20 out this section.

21 (2) AVAILABILITY OF FUNDS.—Amounts appro-
22 priated pursuant to paragraph (1) are authorized to
23 remain available until expended.

1 **SEC. 8. THREAT ASSESSMENT REPORT.**

2 (a) IN GENERAL.—Not later than 180 days after the
3 date of enactment of this Act, and annually thereafter,
4 the Secretary of State shall submit a report to the appro-
5 priate congressional committees—

6 (1) detailing the preparations made at United
7 States diplomatic missions abroad to detect and
8 mitigate a radiological attack on United States mis-
9 sions and other United States facilities under the
10 control of the Secretary; and

11 (2) setting forth a rank-ordered list of the Sec-
12 retary's priorities for improving radiological security
13 and consequence management at United States mis-
14 sions, including a rank-ordered list of the missions
15 where such improvement is most important.

16 (b) BUDGET REQUEST.—The report shall also in-
17 clude a proposed budget for the improvements described
18 in subsection (a)(2).

19 (c) FORM OF SUBMISSION.—The report shall be un-
20 classified with a classified annex if necessary.

21 **SEC. 9. SPECIAL REPRESENTATIVE FOR INSPECTIONS OF**
22 **NUCLEAR AND RADIOLOGICAL MATERIALS.**

23 Section 1 of the State Department Basic Authorities
24 Act of 1956 (22 U.S.C. 2651a) is amended by adding at
25 the end the following new subsection:

1 “(h) SPECIAL REPRESENTATIVE FOR INSPECTIONS
2 OF NUCLEAR AND RADIOLOGICAL MATERIALS.—

3 “(1) ESTABLISHMENT OF POSITION.—There
4 shall be within the Bureau of the Department of
5 State primarily responsible for nonproliferation mat-
6 ters a Special Representative for Inspections of Nu-
7 clear and Radiological Materials (in this subsection
8 referred to as the ‘Special Representative’), who
9 shall be appointed by the President, by and with the
10 advice and consent of the Senate. The Special Rep-
11 resentative shall have the rank and status of ambas-
12 sador.

13 “(2) RESPONSIBILITIES.—The Special Rep-
14 resentative shall have the primary responsibility
15 within the Department of State for assisting the
16 Secretary of State in negotiating international agree-
17 ments that ensure inspection of cargoes of nuclear
18 and radiological materials destined for the United
19 States at ports of embarkation, and such other
20 agreements as may control radioactive materials.

21 “(3) COOPERATION WITH UNITED STATES CUS-
22 TOMS SERVICE.—In carrying out the negotiations
23 described in paragraph (2), the Special Representa-
24 tive shall cooperate with, and accept the assistance

1 and participation of, appropriate officials of the
2 United States Customs Service.”.

3 **SEC. 10. RESEARCH AND DEVELOPMENT GRANTS.**

4 (a) IN GENERAL.—Subject to the availability of ap-
5 propriations, there is established a program under which
6 the Director of the National Science Foundation shall
7 award grants for university-based research into the detec-
8 tion of fissile materials, identification of radioactive iso-
9 topes in real time, the protection of sites from attack by
10 radiological dispersion device, mitigation of consequences
11 of such an attack, and attribution of materials used in
12 attacks by radiological dispersion device or by improvised
13 nuclear devices. Such grants shall be available only to in-
14 vestigators at baccalaureate and doctoral degree granting
15 academic institutions. In carrying out the program, the
16 Director of the National Science Foundation shall consult
17 about this program with the Secretary of Energy in order
18 to minimize duplication and increase synergies. The con-
19 sultation shall also include consideration of the use of the
20 Department of Energy to develop promising basic ideas
21 into field-ready hardware. The Secretary of Energy shall
22 work with the national laboratories and industry to de-
23 velop field-ready prototype detectors.

24 (b) AUTHORIZATION OF APPROPRIATIONS.—

1 (1) IN GENERAL.—There is authorized to be
2 appropriated to the National Science Foundation
3 \$10,000,000, and to the Department of Energy
4 \$5,000,000, to carry out this section in fiscal years
5 2003 through 2008.

6 (2) AVAILABILITY OF FUNDS.—Amounts appro-
7 priated pursuant to paragraph (1) are authorized to
8 remain available until expended.

9 **SEC. 11. STUDY AND REPORTS BY THE NATIONAL ACADEMY**
10 **OF SCIENCES.**

11 (a) STUDY.—Not later than 90 days after the date
12 of enactment of this Act, the Secretary, in consultation
13 with the Chairman of the Nuclear Regulatory Commis-
14 sion, acting through a contract with the National Academy
15 of Sciences, shall conduct a study of the use of radioactive
16 sources in industry and of potential substitutes for those
17 sources.

18 (b) REPORTS.—Not later than six months after entry
19 into the contract referred to in subsection (a), the Na-
20 tional Academy of Sciences shall submit an initial report
21 to the Secretary and the appropriate congressional com-
22 mittees and, not later than three months after submission
23 of the initial report, shall submit to the Secretary and
24 those committees a final report.

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