

107TH CONGRESS  
1ST SESSION

# H. R. 3382

To amend the Atomic Energy Act of 1954 and the Energy Reorganization Act of 1974 to strengthen security at sensitive nuclear facilities.

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## IN THE HOUSE OF REPRESENTATIVES

NOVEMBER 29, 2001

Mr. MARKEY (for himself and Mrs. LOWEY) introduced the following bill;  
which was referred to the Committee on Energy and Commerce

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## A BILL

To amend the Atomic Energy Act of 1954 and the Energy Reorganization Act of 1974 to strengthen security at sensitive nuclear facilities.

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 Security Act  
5       of 2001”.

6       **SEC. 2. DEFINITIONS.**

7       Section 11 of the Atomic Energy Act of 1954 (42  
8       U.S.C. 2014) is amended—

9               (1) by redesignating subsection jj. as subsection  
10       ii.; and

1 (2) by adding at the end the following:

2 “jj. DESIGN BASIS THREAT.—The term ‘design basis  
3 threat’ means the design basis threat established by the  
4 Commission under section 73.1 of title 10, Code of Fed-  
5 eral Regulations (or any successor regulation developed  
6 under section 170C).

7 “kk. SENSITIVE NUCLEAR FACILITY.—The term  
8 ‘sensitive nuclear facility’ means—

9 “(1) a commercial nuclear power plant and as-  
10 sociated spent fuel storage facility;

11 “(2) a decommissioned nuclear power plant and  
12 associated spent fuel storage facility;

13 “(3) a category I fuel cycle facility;

14 “(4) a gaseous diffusion plant; and

15 “(5) any other facility licensed by the Commis-  
16 sion, or used in the conduct of an activity licensed  
17 by the Commission, that the Commission determines  
18 should be treated as a sensitive nuclear facility  
19 under section 170C.”.

20 **SEC. 3. NUCLEAR SECURITY.**

21 (a) IN GENERAL.—Chapter 14 of the Atomic Energy  
22 Act of 1954 (42 U.S.C. 2201 et seq.) is amended by add-  
23 ing at the end the following:

1 **“SEC. 170C. PROTECTION OF SENSITIVE NUCLEAR FACILI-**  
2 **TIES AGAINST THE DESIGN BASIS THREAT.**

3 “(a) DEFINITIONS.—In this section:

4 “(1) NUCLEAR SECURITY FORCE.—The term  
5 ‘nuclear security force’ means the nuclear security  
6 force established under subsection (b)(1).

7 “(2) FUND.—The term ‘Fund’ means the Nu-  
8 clear Security Fund established under subsection (f).

9 “(3) QUALIFICATION STANDARD.—The term  
10 ‘qualification standard’ means a qualification stand-  
11 ard established under subsection (e)(2)(A).

12 “(4) SECURITY PLAN.—The term ‘security plan’  
13 means a security plan developed under subsection  
14 (b)(2).

15 “(b) NUCLEAR SECURITY.—The Commission shall—

16 “(1) establish a nuclear security force, the  
17 members of which shall be employees of the Com-  
18 mission, to provide for the security of all sensitive  
19 nuclear facilities against the design basis threat; and

20 “(2) develop and implement a security plan for  
21 each sensitive nuclear facility to ensure the security  
22 of all sensitive nuclear facilities against the design  
23 basis threat.

24 “(c) DESIGN BASIS THREAT.—

25 “(1) IN GENERAL.—Not later than 90 days  
26 after the date of enactment of this section, and at

1       least once every 3 years thereafter, the Commission,  
2       in consultation with the Assistant to the President  
3       for Homeland Security, the Attorney General, the  
4       Secretary of Defense, and other Federal, State, and  
5       local agencies, as appropriate, shall revise the design  
6       basis threat to include—

7               “(A) threats equivalent to—

8                       “(i) the events of September 11,  
9                       2001;

10                      “(ii) a physical, cyber, biochemical, or  
11                      other terrorist threat;

12                      “(iii) an attack on a facility by mul-  
13                      tiple coordinated teams of a large number  
14                      of individuals;

15                      “(iv) assistance in an attack from sev-  
16                      eral persons employed at the facility;

17                      “(v) a suicide attack;

18                      “(vi) a water-based or air-based  
19                      threat;

20                      “(vii) the use of explosive devices of  
21                      considerable size and other modern weap-  
22                      onry;

23                      “(viii) an attack by persons with a so-  
24                      phisticated knowledge of the operations of  
25                      a sensitive nuclear facility; and

1 “(ix) fire, especially a fire of long du-  
2 ration; and

3 “(B) any other threat that the Commission  
4 determines should be included as an element of  
5 the design basis threat.

6 “(2) REPORTS.—The Commission shall submit  
7 to Congress a report on each revision made under  
8 paragraph (1).

9 “(d) SECURITY PLANS.—

10 “(1) IN GENERAL.—Not later than 180 days  
11 after the date of enactment of this section, the Com-  
12 mission shall develop a security plan for each sen-  
13 sitive nuclear facility to ensure the protection of  
14 each sensitive nuclear facility against the design  
15 basis threat.

16 “(2) ELEMENTS OF THE PLAN.—A security  
17 plan shall prescribe—

18 “(A) the deployment of the nuclear secu-  
19 rity force, including—

20 “(i) numbers of the members of the  
21 nuclear security force at each sensitive nu-  
22 clear facility;

23 “(ii) tactics of the members of the nu-  
24 clear security force at each sensitive nu-  
25 clear facility; and

1 “(iii) capabilities of the members of  
2 the nuclear security force at each sensitive  
3 nuclear facility;

4 “(B) other protective measures,  
5 including—

6 “(i) designs of critical control systems  
7 at each sensitive nuclear facility;

8 “(ii) restricted personnel access to  
9 each sensitive nuclear facility;

10 “(iii) perimeter site security, internal  
11 site security, and fire protection barriers;

12 “(iv) increases in protection for spent  
13 fuel storage areas;

14 “(v) placement of spent fuel in dry  
15 cask storage; and

16 “(vi) background security checks for  
17 employees and prospective employees; and

18 “(C) a schedule for completing the require-  
19 ments of the security plan not later than 18  
20 months after the date of enactment of this sec-  
21 tion.

22 “(3) ADDITIONAL REQUIREMENTS.—A holder  
23 of a license for a sensitive nuclear facility under sec-  
24 tion 103 or 104 or the State or local government in  
25 which a sensitive nuclear facility is located may peti-

tion the Commission for additional requirements in the security plan for the sensitive nuclear facility.

“(4) IMPLEMENTATION OF SECURITY PLAN.—  
Not later than 270 days after the date of enactment of this section, the Commission, in consultation with a holder of a license for a sensitive nuclear facility under section 103 or 104, shall, by direct action of the Commission or by order requiring action by the licensee, implement the security plan for the sensitive nuclear facility in accordance with the schedule under paragraph (2)(C).

“(5) SUFFICIENCY OF SECURITY PLAN.—If at any time the Commission determines that the implementation of the requirements of the security plan for a sensitive nuclear facility is insufficient to ensure the security of the sensitive nuclear facility against the design basis threat, the Commission shall immediately submit to Congress and the President a classified report that—

“(A) identifies the vulnerability of the sensitive nuclear facility; and

“(B) recommends actions by Federal, State, or local agencies to eliminate the vulnerability.

“(e) NUCLEAR SECURITY FORCE.—

1           “(1) IN GENERAL.—Not later than 90 days  
2           after the date of the enactment of this section, the  
3           Commission, in consultation with other Federal  
4           agencies, as appropriate, shall establish a program  
5           for the hiring and training of the nuclear security  
6           force.

7           “(2) HIRING.—

8                   “(A) QUALIFICATION STANDARDS.—Not  
9                   later than 30 days after the date of enactment  
10                  of this section, the Commission shall establish  
11                  qualification standards that individuals shall be  
12                  required to meet to be hired by the Commission  
13                  as members of the nuclear security force.

14                  “(B) EXAMINATION.—The Commission  
15                  shall develop and administer a nuclear security  
16                  force personnel examination for use in deter-  
17                  mining the qualification of individuals seeking  
18                  employment as members of the nuclear security  
19                  force.

20                  “(C) CRIMINAL AND SECURITY BACK-  
21                  GROUND CHECKS.—The Commission shall re-  
22                  quire that an individual to be hired as a mem-  
23                  ber of the nuclear security force undergo a  
24                  criminal and security background check.



1           “(D) DISQUALIFICATION OF INDIVIDUALS  
2 WHO PRESENT NATIONAL SECURITY RISKS.—  
3 The Commission, in consultation with the heads  
4 of other Federal agencies, as appropriate, shall  
5 establish procedures, in addition to any back-  
6 ground check conducted under subparagraph  
7 (B), to ensure that no individual who presents  
8 a threat to national security is employed as a  
9 member of the nuclear security force.

10           “(3) ANNUAL PROFICIENCY REVIEW.—

11           “(A) IN GENERAL.—The Commission shall  
12 provide that an annual evaluation of each mem-  
13 ber of the nuclear security force is conducted  
14 and documented.

15           “(B) REQUIREMENTS FOR CONTINU-  
16 ATION.—An individual employed as a member  
17 of the nuclear security force may not continue  
18 to be employed in that capacity unless the eval-  
19 uation under subparagraph (A) demonstrates  
20 that the individual—

21                   “(i) continues to meet all qualification  
22 standards;

23                   “(ii) has a satisfactory record of per-  
24 formance and attention to duty; and

1           “(iii) has the knowledge and skills  
2           necessary to vigilantly and effectively pro-  
3           vide for the security of a sensitive nuclear  
4           facility against the design basis threat.

5           “(4) TRAINING.—

6           “(A) IN GENERAL.—The Commission shall  
7           provide for the training of each member of the  
8           nuclear security force to ensure each member  
9           has the knowledge and skills necessary to pro-  
10          vide for the security of a sensitive nuclear facil-  
11          ity against the design basis threat.

12          “(B) TRAINING PLAN.—Not later than 60  
13          days after the date of enactment of this section,  
14          the Commission shall develop a plan for the  
15          training of members of the nuclear security  
16          force.

17          “(C) USE OF OTHER AGENCIES.—The  
18          Commission may enter into a memorandum of  
19          understanding or other arrangement with any  
20          other Federal agency with appropriate law en-  
21          forcement responsibilities, to provide personnel,  
22          resources, or other forms of assistance in the  
23          training of members of the nuclear security  
24          force.

25          “(f) NUCLEAR SECURITY FUND.—

1           “(1) ESTABLISHMENT.—There is established in  
2           the Treasury of the United States a fund to be  
3           known as the ‘Nuclear Security Fund’, which shall  
4           be used by the Commission to administer programs  
5           under this section to provide for the security of sen-  
6           sitive nuclear facilities.

7           “(2) DEPOSITS IN THE FUND.—The Commis-  
8           sion shall deposit in the Fund—

9                   “(A) the amount of fees collected under  
10                  paragraph (5); and

11                  “(B) amounts appropriated under sub-  
12                  section (g).

13           “(3) INVESTMENT OF AMOUNTS.—

14                   “(A) IN GENERAL.—The Secretary of the  
15                  Treasury shall invest such portion of the Fund  
16                  as is not, in the judgment of the Secretary of  
17                  the Treasury, required to meet current with-  
18                  drawals. Investments may be made only in in-  
19                  terest-bearing obligations of the United States.

20                   “(B) ACQUISITION OF OBLIGATIONS.—For  
21                  the purpose of investments under subparagraph  
22                  (A), obligations may be acquired—

23                           “(i) on original issue at the issue  
24                           price; or

1 “(ii) by purchase of outstanding obli-  
2 gations at the market price.

3 “(C) SALE OF OBLIGATIONS.—Any obliga-  
4 tion acquired by the Fund may be sold by the  
5 Secretary of the Treasury at the market price.

6 “(D) CREDITS TO FUND.—The interest on,  
7 and the proceeds from the sale or redemption  
8 of, any obligations held in the Fund shall be  
9 credited to and form a part of the Fund.

10 “(4) USE OF AMOUNTS IN THE FUND.—The  
11 Commission shall use amounts in the Fund to pay  
12 the costs of—

13 “(A) salaries, training, and other expenses  
14 of the nuclear security force; and

15 “(B) developing and implementing security  
16 plans.

17 “(5) FEE.—To ensure that adequate amounts  
18 are available to provide assistance under paragraph  
19 (4), the Commission shall assess licensees a fee in  
20 an amount determined by the Commission.

21 “(g) AUTHORIZATION OF APPROPRIATIONS.—There  
22 are authorized to be appropriated such sums as are nec-  
23 essary to carry out this section.”.

24 (b) IMPLEMENTATION.—The Commission shall com-  
25 plete the full implementation of the amendment made by

1 subsection (a) as soon as practicable after the date of en-  
 2 actment of this Act, but in no event later than 270 days  
 3 after the date of enactment of this Act.

4 (c) TECHNICAL AND CONFORMING AMENDMENT.—  
 5 The table of contents for chapter 14 of the Atomic Energy  
 6 Act of 1954 (42 U.S.C. prec. 2011) is amended by adding  
 7 at the end the following:

“Sec. 170B. Uranium supply.

“Sec. 170C. Protection of sensitive nuclear facilities against the design basis  
 threat.”.

8 **SEC. 4. OPERATION SAFEGUARDS AND RESPONSE UNIT.**

9 Section 204 of the Energy Reorganization Act of  
 10 1974 (42 U.S.C. 5844) is amended by adding at the end  
 11 the following:

12 “(d) OPERATION SAFEGUARDS AND RESPONSE  
 13 UNIT.—

14 “(1) DEFINITIONS.—In this subsection:

15 “(A) ASSISTANT DIRECTOR.—The term  
 16 ‘Assistant Director’ means the Assistant Direc-  
 17 tor for Operation Safeguards and Response.

18 “(B) DESIGN BASIS THREAT.—The term  
 19 ‘design basis threat’ has the meaning given the  
 20 term in section 11 of the Atomic Energy Act of  
 21 1954 (42 U.S.C. 2014).

22 “(C) SENSITIVE NUCLEAR FACILITY.—The  
 23 term ‘sensitive nuclear facility’ has the meaning

1 given the term in section 11 of the Atomic En-  
2 ergy Act of 1954 (42 U.S.C. 2014).

3 “(D) UNIT.—The term ‘Unit’ means the  
4 Operation Safeguards and Response Unit estab-  
5 lished under paragraph (2)(A).

6 “(2) ESTABLISHMENT OF UNIT.—

7 “(A) IN GENERAL.—There is established  
8 within the Office of Nuclear Material Safety  
9 and Safeguards the Operation Safeguards and  
10 Response Unit.

11 “(B) HEAD OF UNIT.—The Unit shall be  
12 headed by the Assistant Director.

13 “(C) DUTIES.—The Assistant Director  
14 shall—

15 “(i) establish a program for the con-  
16 duct of operation safeguards and response  
17 evaluations under paragraph (3); and

18 “(ii) establish a program for the con-  
19 duct of emergency response exercises under  
20 paragraph (4).

21 “(D) MOCK TERRORIST TEAM.—The per-  
22 sonnel of the Unit shall include a Mock Ter-  
23 rorist Team comprised of—

24 “(i) not fewer than 20 individuals  
25 with advanced knowledge of special weap-

ons and tactics comparable to special operations forces of the Armed Forces;

“(ii) at least 1 nuclear engineer;

“(iii) for each evaluation at a sensitive nuclear facility under paragraph (3), at least 1 individual with knowledge of the operations of the sensitive nuclear facility who is capable of actively disrupting the normal operations of the sensitive nuclear facility; and

“(iv) any other individual that the Assistant Director determines should be a member of the Mock Terrorist Team.

“(3) OPERATION SAFEGUARDS AND RESPONSE EVALUATIONS.—

“(A) IN GENERAL.—Not later than 1 year after the date of enactment of this subsection, the Assistant Director shall establish an operation safeguards and response evaluation program to assess the ability of each sensitive nuclear facility to defend against the design basis threat.

“(B) FREQUENCY OF EVALUATIONS.—Not less often than once every 2 years, the Assistant Director shall conduct and document operation

1           safeguards and response evaluations at each  
2           sensitive nuclear facility to assess the ability of  
3           the members of the nuclear security force at the  
4           sensitive nuclear facility to defend against the  
5           design basis threat.

6           “(C) ACTIVITIES.—The evaluation shall in-  
7           clude 2 or more force-on-force exercises by the  
8           Mock Terrorist Team against the sensitive nu-  
9           clear facility that simulate air, water, and land  
10          assaults (as appropriate).

11          “(D) CRITERIA.—The Assistant Director  
12          shall establish criteria for judging the success  
13          of the evaluations.

14          “(E) CORRECTIVE ACTION.—If a sensitive  
15          nuclear facility fails to complete successfully an  
16          operation safeguards and response evaluation,  
17          the Commission shall require additional oper-  
18          ation safeguards and response evaluations not  
19          less often than once every 6 months until the  
20          sensitive nuclear facility successfully completes  
21          an operation safeguards and response evalua-  
22          tion.

23          “(F) REPORTS.—Not less often than once  
24          every year, the Commission shall submit to the  
25          Congress and the President a report that de-



1 scribes the results of each operation safeguards  
2 and response evaluation under this paragraph  
3 for the previous year.

4 “(4) EMERGENCY RESPONSE EXERCISES.—

5 “(A) IN GENERAL.—Not later than 1 year  
6 after the date of enactment of this subsection,  
7 the Assistant Director, in consultation with the  
8 Assistant to the President for Homeland Secu-  
9 rity, the Director of the Federal Emergency  
10 Management Agency, the Attorney General, and  
11 other Federal, State, and local agencies, as ap-  
12 propriate, shall establish an emergency response  
13 program to evaluate the ability of Federal,  
14 State, and local emergency response personnel  
15 within a 50-mile radius of a sensitive nuclear  
16 facility to respond to a radiological emergency  
17 at the sensitive nuclear facility.

18 “(B) FREQUENCY.—Not less often than  
19 once every 3 years, the Assistant Director shall  
20 conduct emergency response exercises to evalu-  
21 ate the ability of Federal, State, and local  
22 emergency response personnel within a 50-mile  
23 radius of a sensitive nuclear facility to respond  
24 to a radiological emergency at the sensitive nu-  
25 clear facility.

1           “(C) ACTIVITIES.—The response exercises  
2 shall evaluate—

3           “(i) the response capabilities, response  
4 times, and coordination and communica-  
5 tion capabilities of the response personnel;

6           “(ii) the effectiveness and adequacy of  
7 emergency response plans, including evacu-  
8 ation plans; and

9           “(iii) the ability of response personnel  
10 to distribute potassium iodide or other pro-  
11 phylactic medicines in an expeditious man-  
12 ner.

13           “(D) REVISION OF EMERGENCY RESPONSE  
14 PLANS.—The Commission shall revise the emer-  
15 gency response plan for a sensitive nuclear fa-  
16 cility to correct for any deficiencies identified by  
17 an evaluation under this paragraph.

18           “(E) REPORTS.—Not less often than once  
19 every year, the Commission shall submit to  
20 Congress and the President a report that  
21 describes—

22           “(i) the results of each emergency re-  
23 sponse exercise under this paragraph con-  
24 ducted in the previous year; and

1 “(ii) each revision of an emergency re-  
2 sponse plan made under subparagraph (D)  
3 for the previous year.”.

4 **SEC. 5. POTASSIUM IODIDE.**

5 (a) AMENDMENT.—Chapter 19 of the Atomic Energy  
6 Act of 1954 (42 U.S.C. 2015 et seq.) is amended by in-  
7 serting after section 241 the following new section:

8 “SEC. 242. POTASSIUM IODIDE.—Not later than 6  
9 months after the date of the enactment of this section,  
10 the Commission shall—

11 “(1) ensure that stockpiles of potassium iodide  
12 tablets sufficient to provide adequate protection to  
13 the population have been established in individual  
14 homes and at public facilities such as schools and  
15 hospitals within 50 miles of a nuclear power plant;

16 “(2) ensure that stockpiles of potassium iodide  
17 tablets sufficient to provide adequate protection to  
18 the population have been established at public facili-  
19 ties such as schools and hospitals within the area be-  
20 tween 50 and 200 miles of a nuclear power plant;

21 “(3) establish a plan to provide for the utiliza-  
22 tion of the stockpiles described in paragraphs (1)  
23 and (2) by individuals located within 200 miles of a  
24 nuclear power plant in the event of a release of

1        radionuclides, other than a release of amounts hav-  
2        ing no significant public health consequences; and

3                “(4) transmit to the Congress a report—

4                        “(A) on whether stockpiles have been es-  
5                        tablished as required by paragraphs (1) and  
6                        (2); and

7                        “(B) on the utilization plan required under  
8                        paragraph (3).”.

9        (b) TABLE OF CONTENTS AMENDMENT.—The table  
10 of contents of chapter 19 of the Atomic Energy Act of  
11 1954 is amended by inserting after the item relating to  
12 section 241 the following new item:

“Sec. 242. Potassium iodide.”.

