

114TH CONGRESS
2D SESSION

S. _____

To provide for restrictions related to nuclear cooperation with the People's Republic of China, and for other purposes.

IN THE SENATE OF THE UNITED STATES

Mr. MARKEY (for himself and Mr. RUBIO) introduced the following bill; which was read twice and referred to the Committee on _____

A BILL

To provide for restrictions related to nuclear cooperation with the People's Republic of China, 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 "U.S.-China Nuclear
5 Cooperation and Nonproliferation Act of 2016".

6 **SEC. 2. FINDINGS.**

7 Congress makes the following findings:

8 (1) A 2001 report from the Department of De-
9 fense found that "China supplied Pakistan with nu-
10 clear material and expertise and has provided critical

1 assistance in the production of Pakistan’s nuclear
2 facilities.” China is also alleged to have provided
3 Pakistan with 50 kilograms of highly enriched ura-
4 nium, and designs for a nuclear weapon.

5 (2) An unclassified 2011 report to Congress
6 from the Director of National Intelligence found
7 that Chinese entities “continue to supply a variety
8 of missile-related items to multiple customers, in-
9 cluding Iran and Pakistan.” Previous reports from
10 the Director of National Intelligence have confirmed
11 that Chinese entities have provided support for the
12 missile program of North Korea.

13 (3) China has failed to bring to justice Li
14 Fangwei, also known as Karl Lee, who has been in-
15 dicted in the United States on charges of providing
16 sensitive missile technology to Iran. According to a
17 report from the Congressional Research Service,
18 “concerns persist about Chinese willingness as well
19 as ability to detect and prevent illicit transfers” of
20 dual-use and sensitive nuclear and missile items.

21 (4) At a May 12, 2015, hearing, members of
22 the Committee on Foreign Relations of the Senate
23 raised concerns that China may have diverted reac-
24 tor cooling pumps produced by Curtiss-Wright Cor-
25 poration to its nuclear submarine program, bol-

1 stering the stealth of its submarines, and violating
2 the Previous Nuclear Cooperation Agreement (as
3 that term is defined in section 3(3)).

4 (5) China has announced plans to provide Paki-
5 stan with additional nuclear reactors, beyond those
6 it had already agreed to construct prior to 2004, in
7 violation of its 2004 commitments to the Nuclear
8 Suppliers Group (NSG).

9 (6) Five members of the Chinese People's Lib-
10 eration Army have been indicted in the United
11 States on charges of hacking into the computer net-
12 works of Westinghouse and stealing United States
13 intellectual property, including the design of nuclear
14 power plants.

15 (7) China has announced plans to export nu-
16 clear power plants based on technology acquired
17 from Westinghouse, one of China's primary commer-
18 cial partners under its current and previous nuclear
19 cooperation agreements with the Unites States.
20 While China has committed not to export United
21 States-origin technology without a marketing license
22 from Westinghouse, there is no definition of "United
23 States-origin technology" in the Federal Register,
24 complicating United States enforcement of this pro-
25 vision.

1 (8) China General Nuclear Power Company, a
2 state-owned nuclear power provider, has been in-
3 dicted in the United States on charges of unlawfully
4 producing special nuclear material outside the
5 United States without the authorization of the De-
6 partment of Energy.

7 (9) China's plans to reprocess United States-or-
8 igin spent fuel raise the risk that China could divert
9 plutonium to military purposes, enabling it to
10 produce additional nuclear weapons that threaten
11 the United States and its allies.

12 (10) Secretary of Energy Ernest Moniz, in Bei-
13 jing on March 17, 2016, told the Wall Street Jour-
14 nal that the United States does not "support large-
15 scale reprocessing" and China's plan to proceed with
16 a commercial-scale reprocessing facility "certainly
17 isn't a positive in terms of nonproliferation".

18 (11) China's pursuit of commercial plutonium
19 reprocessing will increase the likelihood that Japan
20 expands its commercial reprocessing program and
21 that South Korea will increase efforts to initiate a
22 similar program of its own. Growing stockpiles of
23 plutonium in East Asia increase the chances of mili-
24 tary diversion and theft, raising the risk of nuclear
25 proliferation, nuclear terrorism, and interstate nu-

1 clear conflict. It is in the interest of the United
2 States to prevent the stockpiling of plutonium in
3 East Asia.

4 **SEC. 3. DEFINITIONS.**

5 In this Act:

6 (1) **APPROPRIATE CONGRESSIONAL COMMIT-**
7 **TEES.**—The term “appropriate congressional com-
8 mittees” means—

9 (A) the Committee on Foreign Relations
10 and the Select Committee on Intelligence of the
11 Senate; and

12 (B) the Committee on Foreign Affairs and
13 the Permanent Select Committee on Intelligence
14 of the House of Representatives.

15 (2) **CHINA.**—The term “China” means the Peo-
16 ple’s Republic of China.

17 (3) **CHINESE PERSON.**—The term “Chinese
18 person” means—

19 (A) an individual who is a citizen or na-
20 tional of the People’s Republic of China; or

21 (B) an entity organized under the laws of
22 the People’s Republic of China or otherwise
23 subject to the jurisdiction of the Government of
24 the People’s Republic of China.

1 (4) PREVIOUS NUCLEAR COOPERATION AGREE-
2 MENT.—The term “Previous Nuclear Cooperation
3 Agreement” means the Agreement for Cooperation
4 Between the Government of the United States of
5 America and the Government of the People’s Repub-
6 lic of China Concerning Peaceful Uses of Nuclear
7 Energy, concluded July 23, 1985.

8 (5) UNITED STATES.—The term “United
9 States” means the several States, the District of Co-
10 lumbia, and any territory or possession of the
11 United States.

12 (6) UNITED STATES PERSON.—The term
13 “United States person” means any United States
14 citizen, any alien admitted to the United States for
15 permanent residence, any entity organized under the
16 laws of the United States or any jurisdiction within
17 the United States, including a foreign branch of
18 such an entity.

19 (7) UNITED STATES-CHINA NUCLEAR COOPERA-
20 TION AGREEMENT.—The term “United States-China
21 Nuclear Cooperation Agreement” means the Agree-
22 ment for Cooperation Between the United States
23 and the Government of the People’s Republic of
24 China that was submitted to the appropriate con-
25 gressional committees under section 123 of the

1 Atomic Energy Act of 1954 (42 U.S.C. 2153) on
2 April 21, 2015, and which entered into force on Oc-
3 tober 29, 2015.

4 **SEC. 4. NOTICE REGARDING TRANSFERS OF NUCLEAR**
5 **TECHNOLOGY TO CHINA.**

6 The Secretary of Energy shall, not later than 5 days
7 after receiving an application for the proposed transfer of
8 nuclear technology to China under section 57 b. of the
9 Atomic Energy Act of 1954 (42 U.S.C. 2077(b)), includ-
10 ing an application for specific authorization to be provided
11 for in a subsequent arrangement under section 131 of that
12 Act (42 U.S.C. 2160), notify the appropriate congres-
13 sional committees of the receipt of such application. The
14 notice shall describe with particularity the items contained
15 in the proposed transfer of nuclear technology.

16 **SEC. 5. ADDITIONAL REQUIREMENT FOR APPROVAL OF RE-**
17 **TRANSFERS OF UNITED STATES-ORIGIN**
18 **TECHNOLOGY.**

19 (a) IN GENERAL.—Any request for authorization to
20 transfer United States-origin technology (as defined pur-
21 suant to subsection (b)) from China, or with the signifi-
22 cant participation of Chinese persons not located in the
23 United States, to a country other than the United States
24 or China, shall be subject to the authorization require-
25 ments in section 57 b. of the Atomic Energy Act of 1954

1 (42 U.S.C. 2077(b)). Furthermore, such requests for au-
2 thorization shall be denied unless the applicant can dem-
3 onstrate—

4 (1) significant ongoing participation by United
5 States persons in the transfer;

6 (2) in the case of nuclear reactors and reactor
7 components, significant United States content in-
8 volved in, or attendant to, the proposed transfer;
9 and

10 (3) in the case of the transfer of technology de-
11 veloped with the participation of the United States
12 Government, timely and adequate reimbursement of
13 the United States Government for any grants or
14 loans provided by the United States Government to
15 entities involved in the development of the tech-
16 nology.

17 (b) DEFINITION OF UNITED STATES-ORIGIN TECH-
18 NOLOGY.—Not later than 90 days after the date of the
19 enactment of this Act, the Secretary of Energy shall issue
20 a definition of items covered by the term “United States-
21 origin technology” in subsection (a), including items de-
22 rived from such technology. The term shall include items
23 developed by United States persons or persons subject to
24 the jurisdiction of the United States, and items developed

1 with the participation of the United States Government,
2 including large, passive light water reactors.

3 **SEC. 6. STATEMENT OF POLICY ON CHINA-PAKISTAN NU-**
4 **CLEAR COOPERATION.**

5 It is the policy of the United States—

6 (1) to oppose the provision by China of assist-
7 ance in the construction of any nuclear reactor in
8 Pakistan other than the first 2 reactors constructed
9 at Chasma, which were consistent with the condi-
10 tions concerning China's participation in the Nuclear
11 Suppliers Group; and

12 (2) to assist Pakistan with the acquisition and
13 development of sufficient electrical power to meet its
14 domestic requirements for electrical power through
15 means other than nuclear power.

16 **SEC. 7. ADDITIONAL NOTIFICATION REQUIREMENTS.**

17 (a) DETERMINATION REQUIRED.—Not later than
18 180 days after the date of the enactment of this Act, and
19 annually thereafter, the President, in consultation with the
20 Secretary of State, the Secretary of Energy, the Secretary
21 of Defense, and the Director of National Intelligence, shall
22 determine whether the Government of China, persons act-
23 ing on behalf of the Government of China, or Chinese per-
24 sons have, since the entry into force of the United States-
25 China Nuclear Cooperation Agreement—

1 (1) retransferred any United States nuclear
2 items to a third country without the permission of
3 the United States Government;

4 (2) diverted or attempted to divert United
5 States nuclear items to military use;

6 (3) stolen or attempted to steal United States
7 nuclear items;

8 (4) failed to undertake measures necessary to
9 prevent transfers of goods, services, and technology
10 described in section 2(a) of the Iran, North Korea,
11 and Syria Nonproliferation Act (Public Law 106–
12 178; 50 U.S.C. 1701 note), or to make substantial
13 progress in preventing such transfers;

14 (5) failed to undertake measures to enforce the
15 sanctions provided for in United Nations Security
16 Council Resolution 2270, adopted on March 2, 2016,
17 and previous relevant resolutions recalled in Resolu-
18 tion 2270;

19 (6) refused to adhere to the Nuclear Suppliers
20 Group guidelines regarding the export of any new ci-
21 vilian nuclear reactors, regardless of any prior or fu-
22 ture contract obligations; or

23 (7) otherwise violated the terms and conditions
24 of the United States-China Nuclear Cooperation
25 Agreement, or any authorization issued by the

1 United States Government concerning transfers of
2 United States nuclear items.

3 (b) SUSPENSION OF COOPERATION.—If the President
4 makes a determination described in subsection (a), the
5 President shall immediately suspend all cooperation under
6 the United States-China Nuclear Cooperation Agreement,
7 including any transfers of nuclear technology or materials,
8 until the President submits to the appropriate congres-
9 sional committees—

10 (1) a plan of corrective action to—

11 (A) address the activity described in sub-
12 section (a);

13 (B) mitigate any damage to the national
14 security of the United States because of such
15 activity; and

16 (C) prevent further such activity; and

17 (2) a certification to the appropriate congres-
18 sional committees that the plan described in para-
19 graph (1) is being implemented.

20 (c) DEFINITION.—In this section, the term “United
21 States nuclear items” means any items that are trans-
22 ferred to China under—

23 (1) the United States-China Nuclear Coopera-
24 tion Agreement;

1 (2) section 57b. of the Atomic Energy Act of
2 1954 (42 U.S.C. 2077(b)); or

3 (3) part 110 of title 10, Code of Federal Regu-
4 lations.

5 **SEC. 8. IMPLEMENTATION OF AGREED MINUTE.**

6 The President may not bring into effect the proce-
7 dures described in the section of the Agreed Minute to
8 the United States-China Nuclear Cooperation Agreement
9 that appear under the heading “Technology and Informa-
10 tion Exchanges” unless the President, at least 60 days
11 of continuous session of Congress before those procedures
12 become effective—

13 (1) provides to the appropriate congressional
14 committees the details concerning the implementa-
15 tion of those provisions; and

16 (2) certifies to the appropriate congressional
17 committees that those procedures protect the na-
18 tional security of the United States to an extent that
19 is equal to or greater than those procedures provided
20 for under part 810 of title 10, Code of Federal Reg-
21 ulations.

22 **SEC. 9. REPROCESSING UNDER THE UNITED STATES-CHINA**
23 **NUCLEAR COOPERATION AGREEMENT.**

24 (a) SENSE OF CONGRESS.—It is the sense of Con-
25 gress that the United States should encourage countries

1 in East Asia to forgo the commencement of new spent fuel
2 reprocessing activities, as part of a mutual effort to pre-
3 vent the increased or expanded stockpiling of separated
4 plutonium in the region.

5 (b) IMPLEMENTATION OF REPROCESSING CONSENT
6 RIGHTS UNDER AGREEMENT.—The President shall not
7 agree to the reprocessing, recycling, or other alteration in
8 form or content of nuclear material, as described in Article
9 6.2 of the United States-China Nuclear Cooperation
10 Agreement, at any individual facility to which the Inter-
11 national Atomic Energy Agency (IAEA) safeguards are
12 not applied, unless, for each proposed facility at which
13 such activity will take place, the President certifies to the
14 appropriate congressional committees that—

15 (1) the President has made a formal request to
16 the IAEA to apply safeguards to the facility;

17 (2) the IAEA has refused the request described
18 in paragraph (1); and

19 (3) the arrangements and procedures under
20 which such reprocessing, recycling, or other alter-
21 ation in form or content will occur—

22 (A) include a requirement that nuclear ma-
23 terial transferred pursuant to the United
24 States-China Nuclear Cooperation Agreement

1 and nuclear material used in or produced
2 through the use of such material—

3 (i) not be commingled with any other
4 nuclear material;

5 (ii) be clearly marked as United
6 States-obligated nuclear material;

7 (iii) be stored in separate facilities
8 from any other nuclear material; and

9 (iv) be available for inspection imme-
10 diately and without prior notice upon re-
11 quest by the IAEA or either party to the
12 agreement; and

13 (B) are sufficient to detect in a timely
14 manner—

15 (i) the diversion for military purposes
16 of nuclear material transferred pursuant to
17 the United States-China Nuclear Coopera-
18 tion Agreement and nuclear material used
19 in or produced through the use of such
20 material; and

21 (ii) the transfer to facilities or loca-
22 tions not agreed to by the United States of
23 nuclear material transferred pursuant to
24 the United States-China Nuclear Coopera-
25 tion Agreement and nuclear material used

1 in or produced through the use of such
2 material.

3 (c) NOTIFICATION REQUIRED.—If the President
4 issues a certification described in subsection (b), the Presi-
5 dent shall include with that certification a detailed descrip-
6 tion of—

7 (1) the facility at which the reprocessing, recy-
8 cling, or other alteration in form and content will
9 take place;

10 (2) the safeguards applied to the facility;

11 (3) the measures that will be undertaken to se-
12 cure and prevent the theft or diversion to military
13 purposes of any separated plutonium that will result
14 from the activities at the facility;

15 (4) the amounts of materials to be processed at
16 the facility;

17 (5) the amount of processed fissile material
18 that might be stockpiled as a result of the activities
19 at the facility, and the estimated time that it may
20 be stockpiled prior to its civilian use in a nuclear re-
21 actor; and

22 (6) the risks to United States national security
23 posed by the potential diversion of nuclear material
24 at the facility.

1 **SEC. 10. REPORTS.**

2 (a) INITIAL REPORT.—

3 (1) IN GENERAL.—No later than 90 days after
4 the date of the enactment of this Act, the Secretary
5 of State, with the concurrence of the Director of Na-
6 tional Intelligence, shall submit to the appropriate
7 congressional committees a report on China’s history
8 of compliance with the peaceful use and non-pro-
9 liferation provisions of the Previous Nuclear Co-
10 operation Agreement.

11 (2) ELEMENTS.—The report required under
12 paragraph (1) shall include—

13 (A) a detailed examination of every sus-
14 pected or alleged violation of such previous
15 agreement;

16 (B) the response by China to any inquiries
17 by the United States regarding any such sus-
18 pected or alleged violations of the previous
19 agreement;

20 (C) an assessment of the likelihood of fu-
21 ture violations under the terms of the United
22 States-China Nuclear Cooperation Agreement;
23 and

24 (D) an assessment of the potential advan-
25 tages that a large civil nuclear infrastructure or
26 program may provide the People’s Republic of

1 China as it seeks to meet its future nuclear
2 weapons requirements.

3 (b) ANNUAL INTELLIGENCE REPORT.—

4 (1) IN GENERAL.—Not later than April 15,
5 2017, and annually thereafter, the Director of Na-
6 tional Intelligence shall submit to the appropriate
7 congressional committees a report on the status of
8 the United States-China Nuclear Cooperation Agree-
9 ment and compliance by China with the agreement.

10 (2) ELEMENTS.—The report required under
11 paragraph (1) shall include, at a minimum—

12 (A) a detailed examination of every sus-
13 pected or alleged violation of the Agreement by
14 the People’s Republic of China that may have
15 occurred during the prior calendar year;

16 (B) the response by China to any inquiries
17 by the United States regarding any such sus-
18 pected or alleged violations;

19 (C) an accounting of the specific roles
20 played in the civil and military nuclear pro-
21 grams of the People’s Republic of China by all
22 Chinese persons visiting United States nuclear
23 labs and facilities;

24 (D) an assessment of whether the People’s
25 Republic of China or any entity acting on its

1 behalf has targeted and United States nuclear-
2 related private-sector or governmental entities,
3 enterprises, or assets for any form of cyber
4 trespass, theft, or attack, or has taken specific
5 actions pursuant to such targeting by any enti-
6 ty;

7 (E) an assessment of the risks of diversion
8 of special nuclear material transferred pursuant
9 to this Agreement, the likely consequences of
10 such diversion, and steps taken to avert any po-
11 tential diversion;

12 (F) an assessment of the potential military
13 utility of diverted civil nuclear technology;

14 (G) an assessment of any civil and criminal
15 law enforcement actions taken by the People's
16 Republic of China's against any entities or indi-
17 viduals within its government or its jurisdiction
18 that have—

19 (i) violated non-proliferation or peace-
20 ful use requirements of this or any other
21 bilateral or multilateral nuclear agreement
22 to which People's Republic of China is a
23 party;

24 (ii) committed cyber trespass, theft, or
25 attack on any United States nuclear-re-

1 lated private sector or governmental enti-
2 ties, enterprises, or assets; or

3 (iii) conducted cyber trespass or cyber
4 exploitation against any private sector nu-
5 clear entities, enterprises, or assets for
6 commercial gain; and

7 (H) a description of the extent to which
8 the Government of the People's Republic of
9 China has honored United States requests for
10 enforcement of United States legal action
11 against any entities or individuals described in
12 subparagraph (G), including requests for extra-
13 dition by the United States.

14 (c) **FORM.**—The reports required under subsections
15 (a) and (b) may be submitted in classified form, but shall
16 also contain an unclassified executive summary and may
17 contain an unclassified annex.

18 (d) **ANNUAL EXPORTS REPORT.**—Not later than
19 April 15, 2017, and annually thereafter, the President
20 shall submit to the appropriate congressional committees
21 a report that—

22 (1) identifies all exports licenses issued in the
23 previous calendar year pursuant to the United
24 States-China Nuclear Cooperation Agreement, in-
25 cluding at a minimum, the license applicant, pro-

1 posed end user, items licensed, value, and term of
2 the license; and

3 (2) assesses China's progress in strengthening,
4 implementing, and enforcing laws to ensure re-
5 stricted dual-use technology is not transferred to
6 countries of proliferation concern.