

112TH CONGRESS  
1ST SESSION

# H. R. 1242

To ensure that nuclear power plants can withstand and adequately respond to earthquakes, tsunamis, strong storms, or other events that threaten a major impact.

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## IN THE HOUSE OF REPRESENTATIVES

MARCH 29, 2011

Mr. MARKEY introduced the following bill; which was referred to the  
Committee on Energy and Commerce

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## A BILL

To ensure that nuclear power plants can withstand and adequately respond to earthquakes, tsunamis, strong storms, or other events that threaten a major impact.

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 Power Plant  
5 Safety Act of 2011”.

6 **SEC. 2. NUCLEAR POWER PLANT SAFETY.**

7 (a) AMENDMENT.—Chapter 14 of the Atomic Energy  
8 Act of 1954 (42 U.S.C. 2201 et seq.) is amended by add-  
9 ing at the end the following new section:

1       “SEC. 170J. REVISION OF NUCLEAR POWER PLANT  
2 SAFETY REGULATIONS.—

3       “a. Not later than 90 days after the date of enact-  
4 ment of the Nuclear Power Plant Safety Act of 2011, the  
5 Commission shall initiate a rulemaking proceeding, includ-  
6 ing notice and opportunity for public comment, to be com-  
7 pleted not later than 18 months after such date of enact-  
8 ment, to revise its regulations to ensure that each utiliza-  
9 tion facility licensed under this Act can withstand and ade-  
10 quately respond to—

11               “(1) an earthquake, tsunami (for a facility lo-  
12 cated in a coastal area), strong storm, or other event  
13 that threatens a major impact to the facility;

14               “(2) a loss of the primary operating power  
15 source for at least 14 days; and

16               “(3) a loss of the primary backup operating  
17 power source for at least 72 hours.

18       “b. The revision of regulations under this section  
19 shall provide for—

20               “(1) a requirement that each licensed utiliza-  
21 tion facility, including any onsite spent nuclear fuel  
22 facilities, be equipped with resilient containment,  
23 safety, and diagnostic systems sufficient to with-  
24 stand the circumstances described in subsection a.,  
25 including requirements to ensure that the reactor

1 core remains cooled, that the containment remains  
2 intact, and that the spent fuel cooling and spent fuel  
3 pool integrity are maintained;

4 “(2) a requirement that licensees have at least  
5 14 days worth of emergency power system fuel on-  
6 site with which to power the licensed facility in the  
7 event of a loss of the primary operating power  
8 source;

9 “(3) a requirement that licensees have suffi-  
10 cient secondary emergency power to power the li-  
11 censed facility in the event of a loss of both the pri-  
12 mary operating power source and the emergency  
13 power system described in paragraph (2) for at least  
14 72 hours;

15 “(4) a requirement that licensees develop, and  
16 obtain approval from the Commission for, a plan to  
17 obtain sufficient additional fuel or batteries in the  
18 event of a long duration loss of operating power or  
19 total station blackout;

20 “(5) a requirement that licensees amend, and  
21 obtain approval from the Commission for, any guid-  
22 ance and strategies developed by the licensees that  
23 are intended to maintain or restore core cooling,  
24 containment, and spent fuel pool cooling capabilities  
25 under the circumstances associated with loss of large

1 areas of the plant due to explosions or fire, in order  
2 to incorporate lessons learned from the Fukushima  
3 nuclear power plant meltdown into such guidance  
4 and strategies;

5 “(6) a requirement that spent nuclear fuel rods  
6 be moved from storage pools to certified dry cask  
7 storage within one year of the nuclear fuel rods  
8 being qualified to be placed in the certified dry  
9 casks;

10 “(7) a requirement to configure spent nuclear  
11 fuel rods in spent nuclear fuel pools in a manner  
12 that would minimize the chance of a fire in the event  
13 of the loss of the water in the spent nuclear fuel  
14 pool;

15 “(8) a requirement that emergency response ex-  
16 ercises include scenarios that are based on the near-  
17 simultaneous occurrence of circumstances described  
18 in subsection a. such as the near-simultaneous  
19 earthquake, tsunami, and total station blackout that  
20 occurred at the Fukushima nuclear power plant in  
21 2011; and

22 “(9) appropriate requirements for periodic  
23 verification of compliance with the regulations issued  
24 under this section.

1 “c. The Commission shall not issue an approval for  
2 any construction permit, operating license, license exten-  
3 sion, design certification, combined license, design ap-  
4 proval, or manufacturing license until the revisions of reg-  
5 ulations under this section take effect.”.

6 (b) CONFORMING AMENDMENT.—The table of con-  
7 tents of the Atomic Energy Act of 1954 is amended by  
8 inserting after the item relating to section 170I the fol-  
9 lowing new item:

“Sec. 170J. Revision of nuclear power plant safety regulations.”.

10 **SEC. 3. LOAN GUARANTEES.**

11 Section 1702(b) of the Energy Policy Act of 2005  
12 (42 U.S.C. 16512(b)) is amended by inserting after para-  
13 graph (2) the following:

14 “In the case of a guarantee for advanced nuclear energy  
15 facilities, the Secretary shall ensure that the cost of the  
16 obligation is calculated using a consideration of the  
17 Tohoku earthquake of 2011 to estimate the risk character-  
18 istics of the project.”.

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