

111TH CONGRESS
2^D SESSION

S. 1660

AN ACT

To amend the Toxic Substances Control Act to reduce the emissions of formaldehyde from composite wood products, 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,*

1 **SECTION 1. SHORT TITLE.**

2 This Act may be cited as the “Formaldehyde Stand-
3 ards for Composite Wood Products Act”.

4 **SEC. 2. FORMALDEHYDE STANDARDS FOR COMPOSITE**
5 **WOOD PRODUCTS.**

6 (a) AMENDMENT.—The Toxic Substances Control
7 Act (15 U.S.C. 2601 et seq.) is amended by adding at
8 the end the following:

9 **“TITLE VI—FORMALDEHYDE**
10 **STANDARDS FOR COMPOSITE**
11 **WOOD PRODUCTS**

12 **“SEC. 601. FORMALDEHYDE STANDARDS.**

13 “(a) DEFINITIONS.—In this section:

14 “(1) FINISHED GOOD.—

15 “(A) IN GENERAL.—The term ‘finished
16 good’ means any good or product (other than a
17 panel) containing—

18 “(i) hardwood plywood;

19 “(ii) particleboard; or

20 “(iii) medium-density fiberboard.

21 “(B) EXCLUSIONS.—The term ‘finished
22 good’ does not include—

23 “(i) any component part or other part
24 used in the assembly of a finished good; or

25 “(ii) any finished good that has pre-
26 viously been sold or supplied to an indi-

1 vidual or entity that purchased or acquired
 2 the finished good in good faith for pur-
 3 poses other than resale, such as—

4 “(I) an antique; or

5 “(II) secondhand furniture.

6 “(2) HARDBOARD.—The term ‘hardboard’ has
 7 such meaning as the Administrator shall establish,
 8 by regulation, pursuant to subsection (d).

9 “(3) HARDWOOD PLYWOOD.—

10 “(A) IN GENERAL.—The term ‘hardwood
 11 plywood’ means a hardwood or decorative panel
 12 that is—

13 “(i) intended for interior use; and

14 “(ii) composed of (as determined
 15 under the standard numbered ANSI/
 16 HPVA HP-1-2009) an assembly of layers
 17 or plies of veneer, joined by an adhesive
 18 with—

19 “(I) lumber core;

20 “(II) particleboard core;

21 “(III) medium-density fiberboard
 22 core;

23 “(IV) hardboard core; or

24 “(V) any other special core or
 25 special back material.

1 “(B) EXCLUSIONS.—The term ‘hardwood
2 plywood’ does not include—

3 “(i) military-specified plywood;

4 “(ii) curved plywood; or

5 “(iii) any other product specified in—

6 “(I) the standard entitled ‘Vol-
7 untary Product Standard—Structural
8 Plywood’ and numbered PS 1–07; or

9 “(II) the standard entitled ‘Vol-
10 untary Product Standard—Perform-
11 ance Standard for Wood-Based Struc-
12 tural-Use Panels’ and numbered PS
13 2–04.

14 “(C) LAMINATED PRODUCTS.—

15 “(i) RULEMAKING.—

16 “(I) IN GENERAL.—The Admin-
17 istrator shall conduct a rulemaking
18 process pursuant to subsection (d)
19 that uses all available and relevant in-
20 formation from State authorities, in-
21 dustry, and other available sources of
22 such information, and analyzes that
23 information to determine, at the dis-
24 cretion of the Administrator, whether
25 the definition of the term ‘hardwood

1 plywood' should exempt engineered ve-
2 neer or any laminated product.

3 “(II) MODIFICATION.—The Ad-
4 ministrator may modify any aspect of
5 the definition contained in clause (ii)
6 before including that definition in the
7 regulations promulgated pursuant to
8 subclause (I).

9 “(ii) LAMINATED PRODUCT.—The
10 term ‘laminated product’ means a prod-
11 uct—

12 “(I) in which a wood veneer is af-
13 fixed to—

14 “(aa) a particleboard plat-
15 form;

16 “(bb) a medium-density fi-
17 berboard platform; or

18 “(cc) a veneer-core platform;
19 and

20 “(II) that is—

21 “(aa) a component part;

22 “(bb) used in the construc-
23 tion or assembly of a finished
24 good; and

1 “(cc) produced by the manu-
2 facturer or fabricator of the fin-
3 ished good in which the product
4 is incorporated.

5 “(4) MANUFACTURED HOME.—The term ‘man-
6 ufactured home’ has the meaning given the term in
7 section 3280.2 of title 24, Code of Federal Regula-
8 tions (as in effect on the date of promulgation of
9 regulations pursuant to subsection (d)).

10 “(5) MEDIUM-DENSITY FIBERBOARD.—The
11 term ‘medium-density fiberboard’ means a panel
12 composed of cellulosic fibers made by dry forming
13 and pressing a resinated fiber mat (as determined
14 under the standard numbered ANSI A208.2–2009).

15 “(6) MODULAR HOME.—The term ‘modular
16 home’ means a home that is constructed in a factory
17 in 1 or more modules—

18 “(A) each of which meet applicable State
19 and local building codes of the area in which
20 the home will be located; and

21 “(B) that are transported to the home
22 building site, installed on foundations, and com-
23 pleted.

24 “(7) NO-ADDED FORMALDEHYDE-BASED
25 RESIN.—

1 “(A) IN GENERAL.—(i) The term ‘no-
2 added formaldehyde-based resin’ means a resin
3 formulated with no added formaldehyde as part
4 of the resin cross-linking structure in a com-
5 posite wood product that meets the emission
6 standards in subparagraph (C) as measured
7 by—

8 “(I) one test conducted pursuant to
9 test method ASTM E-1333-96 (2002) or,
10 subject to clause (ii), ASTM D-6007-02;
11 and

12 “(II) 3 months of routine quality con-
13 trol tests pursuant to ASTM D-6007-02
14 or ASTM D-5582 or such other routine
15 quality control test methods as may be es-
16 tablished by the Administrator through
17 rulemaking.

18 “(ii) Test results obtained under clause
19 (i)(I) or (II) by any test method other than
20 ASTM E-1333-96 (2002) must include a
21 showing of equivalence by means established by
22 the Administrator through rulemaking.

23 “(B) INCLUSIONS.—The term ‘no-added
24 formaldehyde-based resin’ may include any
25 resin made from—

- 1 “(i) soy;
2 “(ii) polyvinyl acetate; or
3 “(iii) methylene diisocyanate.

4 “(C) EMISSION STANDARDS.—The fol-
5 lowing are the emission standards for composite
6 wood products made with no-added formalde-
7 hyde-based resins under this paragraph:

8 “(i) No higher than 0.04 parts per
9 million of formaldehyde for 90 percent of
10 the 3 months of routine quality control
11 testing data required under subparagraph
12 (A)(ii).

13 “(ii) No test result higher than 0.05
14 parts per million of formaldehyde for hard-
15 wood plywood and 0.06 parts per million
16 for particleboard, medium-density fiber-
17 board, and thin medium-density fiber-
18 board.

19 “(8) PARTICLEBOARD.—

20 “(A) IN GENERAL.—The term
21 ‘particleboard’ means a panel composed of cel-
22 lulosic material in the form of discrete particles
23 (as distinguished from fibers, flakes, or
24 strands) that are pressed together with resin

1 (as determined under the standard numbered
2 ANSI A208.1–2009).

3 “(B) EXCLUSIONS.—The term
4 ‘particleboard’ does not include any product
5 specified in the standard entitled ‘Voluntary
6 Product Standard—Performance Standard for
7 Wood-Based Structural-Use Panels’ and num-
8 bered PS 2–04.

9 “(9) RECREATIONAL VEHICLE.—The term ‘rec-
10 reational vehicle’ has the meaning given the term in
11 section 3282.8 of title 24, Code of Federal Regula-
12 tions (as in effect on the date of promulgation of
13 regulations pursuant to subsection (d)).

14 “(10) ULTRA LOW-EMITTING FORMALDEHYDE
15 RESIN.—

16 “(A) IN GENERAL.—(i) The term ‘ultra
17 low-emitting formaldehyde resin’ means a resin
18 in a composite wood product that meets the
19 emission standards in subparagraph (C) as
20 measured by—

21 “(I) 2 quarterly tests conducted pur-
22 suant to test method ASTM E–1333–96
23 (2002) or, subject to clause (ii), ASTM D–
24 6007–02; and

1 “(II) 6 months of routine quality con-
2 trol tests pursuant to ASTM D-6007-02
3 or ASTM D-5582 or such other routine
4 quality control test methods as may be es-
5 tablished by the Administrator through
6 rulemaking.

7 “(ii) Test results obtained under clause
8 (i)(I) or (II) by any test method other than
9 ASTM E-1333-96 (2002) must include a
10 showing of equivalence by means established by
11 the Administrator through rulemaking.

12 “(B) INCLUSIONS.—The term ‘ultra low-
13 emitting formaldehyde resin’ may include—

14 “(i) melamine-urea-formaldehyde
15 resin;

16 “(ii) phenol formaldehyde resin; and

17 “(iii) resorcinol formaldehyde resin.

18 “(C) EMISSION STANDARDS.—

19 “(i) The Administrator may, pursuant
20 to regulations issued under subsection (d),
21 reduce the testing requirements for a man-
22 ufacturer only if its product made with
23 ultra low-emitting formaldehyde resin
24 meets the following emission standards:

1 “(I) For hardwood plywood, no
2 higher than 0.05 parts per million of
3 formaldehyde.

4 “(II) For medium-density fiber-
5 board—

6 “(aa) no higher than 0.06
7 parts per million of formaldehyde
8 for 90 percent of 6 months of
9 routine quality control testing
10 data required under subpara-
11 graph (A)(ii); and

12 “(bb) no test result higher
13 than 0.09 parts per million of
14 formaldehyde.

15 “(III) For particleboard—

16 “(aa) no higher than 0.05
17 parts per million of formaldehyde
18 for 90 percent of 6 months of
19 routine quality control testing
20 data required under subpara-
21 graph (A)(ii); and

22 “(bb) no test result higher
23 than 0.08 parts per million of
24 formaldehyde.

1 “(IV) For thin medium-density
2 fiberboard—

3 “(aa) no higher than 0.08
4 parts per million of formaldehyde
5 for 90 percent of 6 months of
6 routine quality control testing
7 data required under subpara-
8 graph (A)(ii); and

9 “(bb) no test result higher
10 than 0.11 parts per million of
11 formaldehyde.

12 “(ii) The Administrator may not, pur-
13 suant to regulations issued under sub-
14 section (d), exempt a manufacturer from
15 third party certification requirements un-
16 less its product made with ultra low-emit-
17 ting formaldehyde resin meets the fol-
18 lowing emission standards:

19 “(I) No higher than 0.04 parts
20 per million of formaldehyde for 90
21 percent of 6 months of routine quality
22 control testing data required under
23 subparagraph (A)(ii).

24 “(II) No test result higher than
25 0.05 parts per million of formaldehyde

1 for hardwood plywood and 0.06 parts
2 per million for particleboard, medium-
3 density fiberboard, and thin medium-
4 density fiberboard.

5 “(b) REQUIREMENT.—

6 “(1) IN GENERAL.—Except as provided in an
7 applicable sell-through regulation promulgated pur-
8 suant to subsection (d), effective beginning on the
9 date that is 180 days after the date of promulgation
10 of those regulations, the emission standards de-
11 scribed in paragraph (2), shall apply to hardwood
12 plywood, medium-density fiberboard, and
13 particleboard sold, supplied, offered for sale, or man-
14 ufactured in the United States.

15 “(2) EMISSION STANDARDS.—The emission
16 standards referred to in paragraph (1), based on
17 test method ASTM E-1333-96 (2002), are as fol-
18 lows:

19 “(A) For hardwood plywood with a veneer
20 core, 0.05 parts per million of formaldehyde.

21 “(B) For hardwood plywood with a com-
22 posite core—

23 “(i) 0.08 parts per million of form-
24 aldehyde for any period after the effective

1 date described in paragraph (1) and before
2 July 1, 2012; and

3 “(ii) 0.05 parts per million of form-
4 aldehyde, effective on the later of the effec-
5 tive date described in paragraph (1) or
6 July 1, 2012.

7 “(C) For medium-density fiberboard—

8 “(i) 0.21 parts per million of form-
9 aldehyde for any period after the effective
10 date described in paragraph (1) and before
11 July 1, 2011; and

12 “(ii) 0.11 parts per million of form-
13 aldehyde, effective on the later of the effec-
14 tive date described in paragraph (1) or
15 July 1, 2011.

16 “(D) For thin medium-density fiber-
17 board—

18 “(i) 0.21 parts per million of form-
19 aldehyde for any period after the effective
20 date described in paragraph (1) and before
21 July 1, 2012; and

22 “(ii) 0.13 parts per million of form-
23 aldehyde, effective on the later of the effec-
24 tive date described in paragraph (1) or
25 July 1, 2012.

1 “(E) For particleboard—

2 “(i) 0.18 parts per million of form-
3 aldehyde for any period after the effective
4 date described in paragraph (1) and before
5 July 1, 2011; and

6 “(ii) 0.09 parts per million of form-
7 aldehyde, effective on the later of the effec-
8 tive date described in paragraph (1) or
9 July 1, 2011.

10 “(3) COMPLIANCE WITH EMISSION STAND-
11 ARDS.—(A) Compliance with the emission standards
12 described in paragraph (2) shall be measured by—

13 “(i) quarterly tests shall be conducted pur-
14 suant to test method ASTM E-1333-96 (2002)
15 or, subject to subparagraph (B), ASTM D-
16 6007-02; and

17 “(ii) quality control tests shall be con-
18 ducted pursuant to ASTM D-6007-02, ASTM
19 D-5582, or such other test methods as may be
20 established by the Administrator through rule-
21 making.

22 “(B) Test results obtained under subparagraph
23 (A)(i) or (ii) by any test method other than ASTM
24 E-1333-96 (2002) must include a showing of

1 equivalence by means established by the Adminis-
2 trator through rulemaking.

3 “(C) Except where otherwise specified, the Ad-
4 ministrator shall establish through rulemaking the
5 number and frequency of tests required to dem-
6 onstrate compliance with the emission standards.

7 “(4) APPLICABILITY.—The formaldehyde emis-
8 sion standard referred to in paragraph (1) shall
9 apply regardless of whether an applicable hardwood
10 plywood, medium-density fiberboard, or
11 particleboard is—

12 “(A) in the form of an unfinished panel; or

13 “(B) incorporated into a finished good.

14 “(c) EXEMPTIONS.—The formaldehyde emission
15 standard referred to in subsection (b)(1) shall not apply
16 to—

17 “(1) hardboard;

18 “(2) structural plywood, as specified in the
19 standard entitled ‘Voluntary Product Standard—
20 Structural Plywood’ and numbered PS 1–07;

21 “(3) structural panels, as specified in the stand-
22 ard entitled ‘Voluntary Product Standard—Perform-
23 ance Standard for Wood-Based Structural-Use Pan-
24 els’ and numbered PS 2–04;

1 “(4) structural composite lumber, as specified
2 in the standard entitled ‘Standard Specification for
3 Evaluation of Structural Composite Lumber Prod-
4 ucts’ and numbered ASTM D 5456–06;

5 “(5) oriented strand board;

6 “(6) glued laminated lumber, as specified in the
7 standard entitled ‘Structural Glued Laminated Tim-
8 ber’ and numbered ANSI A190.1–2002;

9 “(7) prefabricated wood I-joists, as specified in
10 the standard entitled ‘Standard Specification for Es-
11 tablishing and Monitoring Structural Capacities of
12 Prefabricated Wood I-Joists’ and numbered ASTM
13 D 5055–05;

14 “(8) finger-jointed lumber;

15 “(9) wood packaging (including pallets, crates,
16 spools, and dunnage);

17 “(10) composite wood products used inside a
18 new—

19 “(A) vehicle (other than a recreational ve-
20 hicle) constructed entirely from new parts that
21 has never been—

22 “(i) the subject of a retail sale; or

23 “(ii) registered with the appropriate
24 State agency or authority responsible for

1 motor vehicles or with any foreign state,
2 province, or country;

3 “(B) rail car;

4 “(C) boat;

5 “(D) aerospace craft; or

6 “(E) aircraft;

7 “(11) windows that contain composite wood
8 products, if the window product contains less than
9 5 percent by volume of hardwood plywood,
10 particleboard, or medium-density fiberboard, com-
11 bined, in relation to the total volume of the finished
12 window product; or

13 “(12) exterior doors and garage doors that con-
14 tain composite wood products, if—

15 “(A) the doors are made from composite
16 wood products manufactured with no-added
17 formaldehyde-based resins or ultra low-emitting
18 formaldehyde resins; or

19 “(B) the doors contain less than 3 percent
20 by volume of hardwood plywood, particleboard,
21 or medium-density fiberboard, combined, in re-
22 lation to the total volume of the finished exte-
23 rior door or garage door.

24 “(d) REGULATIONS.—

1 “(1) IN GENERAL.—Not later than January 1,
2 2013, the Administrator shall promulgate regula-
3 tions to implement the standards required under
4 subsection (b) in a manner that ensures compliance
5 with the emission standards described in subsection
6 (b)(2).

7 “(2) INCLUSIONS.—The regulations promul-
8 gated pursuant to paragraph (1) shall include provi-
9 sions relating to—

10 “(A) labeling;

11 “(B) chain of custody requirements;

12 “(C) sell-through provisions;

13 “(D) ultra low-emitting formaldehyde res-
14 ins;

15 “(E) no-added formaldehyde-based resins;

16 “(F) finished goods;

17 “(G) third-party testing and certification;

18 “(H) auditing and reporting of third-party
19 certifiers;

20 “(I) recordkeeping;

21 “(J) enforcement;

22 “(K) laminated products; and

23 “(L) exceptions from the requirements of
24 regulations promulgated pursuant to this sub-
25 section for products and components containing

1 de minimis amounts of composite wood prod-
2 ucts.

3 The Administrator shall not provide under subpara-
4 graph (L) exceptions to the formaldehyde emission
5 standard requirements in subsection (b).

6 “(3) SELL-THROUGH PROVISIONS.—

7 “(A) IN GENERAL.—Sell-through provi-
8 sions established by the Administrator under
9 this subsection, with respect to composite wood
10 products and finished goods containing regu-
11 lated composite wood products (including rec-
12 reational vehicles, manufactured homes, and
13 modular homes), shall—

14 “(i) be based on a designated date of
15 manufacture (which shall be no earlier
16 than the date 180 days following the pro-
17 mulgation of the regulations pursuant to
18 this subsection) of the composite wood
19 product or finished good, rather than date
20 of sale of the composite wood product or
21 finished good; and

22 “(ii) provide that any inventory of
23 composite wood products or finished goods
24 containing regulated composite wood prod-
25 ucts, manufactured before the designated

1 date of manufacture of the composite wood
2 products or finished goods, shall not be
3 subject to the formaldehyde emission
4 standard requirements under subsection
5 (b)(1).

6 “(B) IMPLEMENTING REGULATIONS.—The
7 regulations promulgated under this subsection
8 shall—

9 “(i) prohibit the stockpiling of inven-
10 tory to be sold after the designated date of
11 manufacture; and

12 “(ii) not require any labeling or test-
13 ing of composite wood products or finished
14 goods containing regulated composite wood
15 products manufactured before the des-
16 ignated date of manufacture.

17 “(C) DEFINITION.—For purposes of this
18 paragraph, the term ‘stockpiling’ means manu-
19 facturing or purchasing a composite wood prod-
20 uct or finished good containing a regulated
21 composite wood product between the date of en-
22 actment of the Formaldehyde Standards for
23 Composite Wood Products Act and the date
24 180 days following the promulgation of the reg-
25 ulations pursuant to this subsection at a rate

1 which is significantly greater (as determined by
2 the Administrator) than the rate at which such
3 product or good was manufactured or pur-
4 chased during a base period (as determined by
5 the Administrator) ending before the date of
6 enactment of the Formaldehyde Standards for
7 Composite Wood Products Act.

8 “(4) IMPORT REGULATIONS.—Not later than
9 July 1, 2013, the Administrator, in coordination
10 with the Commissioner of Customs and Border Pro-
11 tection and other appropriate Federal departments
12 and agencies, shall revise regulations promulgated
13 pursuant to section 13 as the Administrator deter-
14 mines to be necessary to ensure compliance with this
15 section.

16 “(5) SUCCESSOR STANDARDS AND TEST METH-
17 ODS.—The Administrator may, after public notice
18 and opportunity for comment, substitute an industry
19 standard or test method referenced in this section
20 with its successor version.

21 “(e) PROHIBITED ACTS.—An individual or entity
22 that violates any requirement under this section (including
23 any regulation promulgated pursuant to subsection (d))
24 shall be considered to have committed a prohibited act
25 under section 15.”.

1 (b) CONFORMING AMENDMENT.—The table of con-
2 tents of the Toxic Substances Control Act (15 U.S.C. prec.
3 2601) is amended by adding at the end the following:

“TITLE VI—FORMALDEHYDE STANDARDS FOR COMPOSITE WOOD
PRODUCTS

“Sec. 601. Formaldehyde standards.”.

4 **SEC. 3. REPORTS TO CONGRESS.**

5 Not later than one year after the date of enactment
6 of this Act, and annually thereafter through December 31,
7 2014, the Administrator of the Environmental Protection
8 Agency shall submit to the Committee on Environment
9 and Public Works of the Senate and the Committee on
10 Energy and Commerce of the House of Representatives
11 a report describing, with respect to the preceding year—

12 (1) the status of the measures carried out or
13 planned to be carried out pursuant to title VI of the
14 Toxic Substances Control Act; and

15 (2) the extent to which relevant industries have
16 achieved compliance with the requirements under
17 that title.

18 **SEC. 4. MODIFICATION OF REGULATION.**

19 Not later than 180 days after the date of promulga-
20 tion of regulations pursuant to section 601(d) of the Toxic
21 Substances Control Act (as amended by section 2), the
22 Secretary of Housing and Urban Development shall up-
23 date the regulation contained in section 3280.308 of title

1 24, Code of Federal Regulations (as in effect on the date
2 of enactment of this Act), to ensure that the regulation
3 reflects the standards established by section 601 of the
4 Toxic Substances Control Act.

Passed the Senate June 14, 2010.

Attest:

Secretary.

117TH CONGRESS
2^D SESSION

S. 1660

AN ACT

To amend the Toxic Substances Control Act to reduce the emissions of formaldehyde from composite wood products, and for other purposes.