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SENATE

{REPORT 111-169

FORMALDEHYDE STANDARDS FOR COMPOSITE WOOD PRODUCTS ACT

APRIL 19, 2010.—Ordered to be printed

Mr. REID (for Mrs. BOXER), from the Committee on Environment
and Public Works, submitted the following

R E P O R T

[To accompany S. 1660]

[Including cost estimate of the Congressional Budget Office]

The Committee on Environment and Public Works, to which was referred a bill (S. 1660) to amend the Toxic Substances Control Act to reduce emissions of formaldehyde from composite wood products, and for other purposes, having considered the same, reports favorably thereon with an amendment and recommends that the bill, as amended, do pass.

INTRODUCTION AND PURPOSES

The Formaldehyde Standards for Composite Wood Products Act was introduced by Senators Klobuchar and Crapo on September 10, 2009, and referred to the Committee on Environment and Public Works. The bill was considered at a business meeting held by the Committee on December 10, 2009. At the meeting, Senators Klobuchar and Crapo offered a substitute amendment which was agreed to by voice vote and the bill was ordered favorably reported, as amended.

The Act's primary purpose is to amend the Toxic Substances Control Act to establish national emissions standards for formaldehyde in domestic and imported composite wood products.

BACKGROUND AND NEED FOR LEGISLATION

Formaldehyde (chemical formula CH₂O) is the most reactive of the aldehyde family of chemicals. It exists at room temperature as a colorless gas with a strong, pungent smell. Formaldehyde is com-

monly used in the U.S in the production of urea-formaldehyde resins used in the manufacturing of composite wood products.¹ The highest levels of airborne formaldehyde have been detected in indoor air, where it is released from various composite wood consumer products, such as cabinetry and household furnishings. One survey reported formaldehyde levels ranging from 0.10 to 3.68 parts per million (ppm) in homes, and found higher levels in new manufactured housing than in older conventional homes.² Higher concentrations of formaldehyde generally occur in residences that have relatively stagnant air, higher temperatures, and higher humidity.

The major toxic effects caused by acute formaldehyde exposure via inhalation are nose, and throat irritation and effects on the nasal cavity, and acute exposure to formaldehyde vapors causes eye irritation.³ Other effects seen from exposure to high levels of formaldehyde in humans are coughing, wheezing, chest pains, and bronchitis.⁴ Animal tests using rats and rabbits shows that formaldehyde has high acute toxicity from inhalation, oral, and dermal exposure.⁵ Chronic exposure to formaldehyde by inhalation in humans has been associated with adverse respiratory symptoms and eye, nose, and throat irritation.⁶

Formaldehyde gas was listed by U.S. Department of Health and Human Services, National Institute of Environmental Health Sciences (NIEHS), National Toxicology Program (NTP), in the Eleventh Report on Carcinogens (RoC) as “reasonably anticipated to be a human carcinogen.”⁷ Recently, NIEHS nominated formaldehyde for possible reconsideration as a “known carcinogen” based on the 2004 International Agency For Research On Cancer (IARC) review, which concluded that there was sufficient evidence for IARC to determine that formaldehyde is known to cause cancer in humans.⁸

In the Clean Air Act Amendments of 1990, Congress identified formaldehyde as a hazardous air pollutant (HAP) for which the U.S. Environmental Protection Agency (EPA) was required to establish emission standards for major and area sources under section 112 of the Clean Air Act, 42 U.S.C. 7412. The EPA has also initiated a proceeding to investigate whether to take regulatory action to control the levels of formaldehyde emitted from composite

¹U.S. Department of Health and Human Services Public Health Service, Agency for Toxic Substances and Disease Registry (ATSDR), “Toxicological Profile for Formaldehyde” (Draft), Atlanta, GA. 1997.

²U.S. Environmental Protection Agency (EPA), “Health and Environmental Effects Profile for Formaldehyde” (EPA/600/x-85/362) (1988); J.D. Spengler, J.F. McCarthy, J.M. Samet, “Indoor Air Quality Handbook,” McGraw-Hill Professional, New York, (2000).

³EPA, “Health and Environmental Effects Profile for Formaldehyde” (EPA/600/x-85/362) (1988); World Health Organization (WHO), “Environmental Health Criteria for Formaldehyde,” Volume 89 (1989).

⁴EPA, “Health and Environmental Effects Profile for Formaldehyde” (EPA/600/x-85/362) (1988); World Health Organization (WHO), “Environmental Health Criteria for Formaldehyde,” Volume 89 (1989).

⁵U.S. Department of Health and Human Services, “National Toxicology Information Program Registry of Toxic Effects of Chemical Substances” (RTECS, online database), National Library of Medicine, Bethesda, MD (1993).

⁶E.J. Calabrese and E.M. Kenyon, “Air Toxics and Risk Assessment”, Lewis Publishers, Chelsea, MI (1991).

⁷U.S. Department of Health and Human Services, Public Health Service, National Toxicology Program, “Report on Carcinogens, Eleventh Edition”; online at: <http://ntp.niehs.nih.gov/ntp/roc/toc11.html>.

⁸International Agency for Research on Cancer, Press Release: “IARC Classifies Formaldehyde as Carcinogenic to Humans” (June 15, 2004); online at: <http://www.iarc.fr/en/media-centre/pr/2004/pr153.html>.

wood products.⁹ U.S. Department of Housing and Urban Development (HUD) regulations at 24 C.F.R. Part 3280 (49 Fed. Reg. 31996 (Aug. 9, 1984), promulgated under the National Manufactured Housing Construction and Safety Standards Act of 1974 (42 U.S.C. 5401–5427), provide standards for formaldehyde emissions from plywood and particleboard materials installed in manufactured homes. With the exception of the HUD regulations regarding manufactured homes, formaldehyde emissions from composite wood products are not currently regulated by the federal government.

In July 1992, after scientific peer review, the California Air Resources Board (CARB) and the Office of Environmental Health Hazard Assessment issued the Staff Report on formaldehyde emissions from composite wood products, finding that formaldehyde is a toxic air contaminant (TAC) with no safe level of exposure and proposing technology-based emissions standards. Because CARB identified formaldehyde as a TAC, CARB was required to prepare a report on the need and appropriate degree of regulation, if any, to reduce formaldehyde emissions. Such regulations are called Airborne Toxic Control Measures (ATCM).

CARB found that exposure to formaldehyde has both non-cancer (eye, nose, and/or throat irritation) and cancer health effects (The International Agency for Research on Cancer determined that there is sufficient evidence that formaldehyde causes nasopharyngeal cancer in humans). CARB found that current annual average concentrations of formaldehyde in ambient air range from 3 to 4 micrograms per cubic meter ($\mu\text{g}/\text{m}^3$) across California, with indoor concentrations typically many times higher, and that the risk from exposure to annual average concentrations of formaldehyde in ambient air is about 20 to 24 potential excess cancer cases per million. CARB estimated that the risk from current total daily formaldehyde exposure is estimated to range from 86 to 231 excess cancer cases per million over a lifetime, and from 23 to 63 excess cancer cases per million due to exposures during childhood. CARB determined that the ATCM will reduce emissions to ambient air and very significantly reduce total daily exposures to formaldehyde, which occur throughout the day in both the outdoor and indoor environment and pose a serious health risk to the people of California.¹⁰

After an extensive rulemaking and scientific peer review process, the CARB ATCM for formaldehyde emissions from composite wood products was finalized in April 2008.¹¹ The CARB ATCM establishes two phases of formaldehyde emission standards, measured by the American Society for Testing and Materials (ASTM) test E 1333–96, for certain domestic and imported composite wood products.¹²

⁹EPA, Advanced Notice of Proposed Rulemaking, “Formaldehyde Emissions from Pressed Wood Products,” 73 Fed. Reg. 73620 (December 3, 2008).

¹⁰California Air Resources Board, “Staff Report: Initial Statement of Reasons For Proposed Rulemaking: Proposed Airborne Toxic Control Measure To Reduce Formaldehyde Emissions from Composite Wood Products” (March 9, 2007); online at <http://www.arb.ca.gov/regact/2007/compwood07/isor.pdf>.

¹¹California Air Resources Board, “Final Statement of Reasons For Rulemaking: Airborne Toxic Control Measure To Reduce Formaldehyde Emissions from Composite Wood Products” (April 26, 2008); online at <http://www.arb.ca.gov/regact/2007/compwood07/fro-final.pdf>.

¹²Table 1 of section 93120.2(a) of title 17, California Code of Regulations (July 28, 2009); online at <http://www.arb.ca.gov/regact/2007/compwood07/fro-final.pdf>.

This bill uses currently available technology-based emissions control measures to reduce formaldehyde emissions from composite wood products. The bill is intended to promote commerce through the use of these technology-based standards for formaldehyde emissions from composite wood products.

SECTION-BY-SECTION ANALYSIS

Section 1. Short title

Summary

This section provides that the Act may be cited as “The Formaldehyde Standards for Composite Wood Products Act.”

Section 2. Formaldehyde standards for composite wood products

Subsection (a)—Amendment

Summary

This section amends the Toxic Substances Control Act (15 U.S.C. 2601, et seq.), by adding a new section 601, which establishes national emissions standards for formaldehyde in domestic and imported composite wood products, as follows:

Sec. 601. Formaldehyde Standards

Subsection (a)—Definitions

This subsection defines the following terms:

(1) “Finished Good” is generally any product (other than a panel) containing hardwood plywood, particle board, or medium density plywood. Excluded from this definition are any component part or other part used in the assembly of a finished good, or any finished good previously sold or supplied to an individual or entity that purchased or acquired it in good faith for purposes other than resale, such as antique or secondhand furniture.

(2) “Hardboard” is a composite panel composed of cellulosic fibers manufactured with a wet process using no resins or resins that have no added formaldehyde.

(3) “Hardwood Plywood” is generally a hardwood or decorative panel that is (i) intended for interior use; and (ii) composed of (as determined under the standard numbered ANSI/HPVA HP-1-2004 (or a successor standard)) an assembly of layers or plies of veneer, joined by an adhesive with a lumber core, particleboard core, medium-density fiberboard core, hardboard core, or any other special core or special back material. Excluded from this definition are any military-specified plywood, curved plywood, or any other product specified in two voluntary industry standards for structural plywood and structural panels.

“Laminated Product” is a product in which a wood veneer is affixed to a particleboard platform, a medium-density fiberboard platform, or a veneer-core platform, and that is a component part used in the construction or assembly of a finished good, and produced by the manufacturer or fabricator of the finished good in which the product is incorporated. The Administrator of the EPA is required to conduct a rulemaking pursuant to subsection (d) that uses all relevant information from State authorities (including the California Air Resources Board), industry, and other available sources

to determine, at the discretion of the Administrator, whether the definition of “hardwood plywood” should exempt any “laminated product.” The Administrator may also modify the definition of “laminated product,” before including it in the regulations.

(4) “Medium-Density Fiberboard” is a panel composed of cellulosic fibers made by dry forming and pressing a resinated fiber mat (as determined under the standard numbered ANSI A208.2–2009 (or a successor standard)).

(5) “No-Added Formaldehyde-Based Resin” is generally a resin formulated with no added formaldehyde as part of the resin cross-linking structure that meets the performance standard contained in section 93120.3(c) of title 17, California Code of Regulations (as in effect on July 28, 2009). A “no-added formaldehyde-based resin” may include any such resin made from soy, polyvinyl acetate, or methylene diisocyanate.

(6) “Particleboard” is generally a panel composed of cellulosic material in the form of discrete particles (as distinguished from fibers, flakes, or strands) that are pressed together with resin (as determined under the standard numbered ANSI A208.1–2009 (or a successor standard)). Excluded from this definition is any product specified in the standard entitled ‘Voluntary Product Standard-Performance Standard for Wood-Based Structural-Use Panels’ and numbered PS 2–04 (or a successor standard).

(7) “Ultra Low-Emitting Formaldehyde Resin” is generally a resin formulated using a process the average formaldehyde emissions of which are consistently below the phase 2 emission standards contained in the airborne toxic control measure for composite wood products described in section 93120.3(d) of title 17, California Code of Regulations (as in effect on July 28, 2009). An “ultra low-emitting formaldehyde resin” may include melamine-urea-formaldehyde resin, phenol formaldehyde resin, and resorcinol formaldehyde resin.

Discussion

As introduced, S. 1660 specifically included any “laminated product” in the definition of “hardwood plywood.” The substitute amendment instead requires that EPA conduct a rulemaking to address the issue of whether laminated products should be included. The California Air Resources Board (CARB) is continuing to assess whether to regulate laminated products. As part of the rulemaking process, S. 1660 requires that EPA use all relevant information from State authorities (including CARB), industry, and other available sources to determine, at the discretion of the Administrator, whether the definition of “hardwood plywood” should exempt any “laminated product” from having to comply with the bill’s technology-based emissions control requirements. In addition, EPA is specifically given discretion to modify the definition of “laminated product” in the regulations.

The legislation provides an exemption for qualifying “laminated products.” These are component parts of finished goods on which wood veneers have been affixed. There is a further requirement that the component part must be produced by the manufacturer or fabricator of the finished good in which it is incorporated. It is the intent of this provision that entities that are a parent and wholly owned subsidiary or sister companies wholly owned by another en-

tity would satisfy this requirement. For instance, if the laminated product were made by one company and then incorporated into a finished good by a sister company, both of which were wholly owned by a parent company, it would qualify for the exemption. This would also apply to second or further tier subsidiaries so long as there were wholly owned relationships through the chain. The committee also recognizes the need for EPA to consider options to help reduce the administrative costs of complying with new standards for suppliers of veneered hardwood plywood component pieces used to make finished goods such as kitchen cabinets and furniture.

As introduced, S. 1660 specifically included “manufactured housing” and “recreational vehicles” in the definition of a “finished product.” U.S. Department of Housing and Urban Development (HUD) regulations at 24 C.F.R. Part 3280 (49 Fed. Reg. 31996 (Aug. 9, 1984), promulgated under the National Manufactured Housing Construction and Safety Standards Act of 1974 (42 U.S.C. 5401–5427), provide standards for formaldehyde emissions from plywood and particleboard materials installed in manufactured homes. In order to avoid overlapping regulations, the substitute amendment removed the inclusion of manufactured homes from the definition of a “finished product,” and instead requires that HUD update its regulation at 24 C.F.R. § 3280.308, to ensure that the regulation reflects the standards established by section 601 of TSCA. Although the substitute amendment removed “recreational vehicles” from the definition of “finished good,” recreational vehicles are covered by the bill because they are specifically excepted from the exemption from the formaldehyde emission standard in section 601(c)(10) for composite wood products used inside new vehicles.

The bill’s treatment of “No-Added Formaldehyde-Based Resin” is an important aspect of the technology-based approach adopted by this bill. While the bill includes the best currently available technological controls for covered emissions, technological advances such as “No-Added Formaldehyde-Based Resin” may, in some circumstances, play a valuable role by reducing or eliminating the need for additional technology-based controls. The Committee expects that the EPA and market forces will provide a range of technology-based solutions to reduce or, in some cases, eliminate formaldehyde emissions.

Subsection (b)—Requirement

Summary

This subsection provides that, except as provided in the applicable sell-through regulation promulgated pursuant to subsection (d), effective 180 days after the date of promulgation of regulations by EPA, the CARB ATCM standard for formaldehyde emissions from composite wood products, as in effect on July 28, 2009, shall apply to hardwood plywood, medium-density fiberboard, and particleboard sold, supplied, offered for sale, or manufactured in the United States. The formaldehyde emission standard shall apply regardless of whether an applicable hardwood plywood, medium-density fiberboard, or particleboard is in the form of an unfinished panel, or incorporated into a finished good.

Discussion

As introduced, S. 1660 would have made the formaldehyde emission standard for composite wood products effective within 180 days of enactment. The substitute amendment provides that the standard will become effective 180 days after EPA promulgates the regulations required under subsection (d). This change in the effective date will allow sufficient time for industry to comply with the requirements and sufficient flexibility for EPA to promulgate and implement the regulations. This is intended to help industries that have a uniquely long period of time between the date of manufacture and the date of sale.

Subsection (c)—Exemptions

Summary

This subsection provides exemptions from the formaldehyde emission standard for hardboard, structural plywood, structural panels, structural composite lumber, orient strand board, glue laminated lumber, prefabricated wood I-joists, finger-jointed lumber, wood packaging (including pallets, crates, spools, and dunnage), or composite wood products used inside new vehicles (as defined in section 430 of the California Vehicle Code) (excluding recreational vehicles), rail cars, boats, aerospace craft, or aircraft. Most of the products exempted in subsection (c) are defined by reference to applicable industry standards.

Discussion

This legislation covers three products—particleboard, medium density fiberboard (“MDF”), and hardwood plywood, both in their panel form and when incorporated into finished products. For clarity, the legislation specifically exempts certain other products such as softwood plywood, hardboard, oriented strand board and others. These products are distinct from the three covered products, but are identified and specifically exempted to avoid any confusion.

Subsection (d)—Regulations

Summary

This subsection requires EPA to promulgate regulations by January 1, 2012, to implement the formaldehyde emission standard in a manner that ensures that compliance with this bill’s technology-based emissions control measures is equivalent to compliance with the CARB ATCM standard. The regulations must include provisions relating to labeling, chain of custody requirements, sell-through provisions, ultra low-emitting formaldehyde resins, no-added formaldehyde-based resins, finished goods, third-party testing and certification, auditing and reporting of third-party certifiers, recordkeeping, enforcement, and laminated products.

Subsection (d) also requires that by July 1, 2012, EPA, in coordination with the U.S. Department of Homeland Security, Customs and Border Protection, and other appropriate Federal departments and agencies, revise regulations promulgated pursuant to section 13 of TSCA, relating to import regulations.

Subsection (d) further provides that EPA may modify, by regulation, any reference to an industry standard contained in section 601 of TSCA if the standard is subsequently updated.

Subsection (e)—Prohibited acts

Summary

This subsection provides that a violation of any requirement under Section 601 of TSCA, including regulation promulgated under subsection (d), constitutes a prohibited act under section 15 of TSCA.

Subsection (b)—Conforming amendment

This subsection of S. 1660 amends the table of contents of TSCA to include section 601.

Section 3. Reports to Congress

This section requires EPA to provide a report to Congress by December 31, 2010, and annually thereafter through December 31, 2014, describing the status of measures taken or planned to be carried out pursuant to section 601 of TSCA and the extent of industry compliance with the requirements of section 601.

Section 4. Modification of Regulations

Summary

This section requires that, within 180 days of enactment, the U.S. Department of Housing and Urban Development (HUD) must update its regulation at 24 C.F.R. § 3280.308, relating to formaldehyde emission standards for plywood and particleboard materials installed in manufactured homes, to ensure that the HUD regulation reflects the standards established pursuant to section 601 of TSCA.

LEGISLATIVE HISTORY

S. 1660 was introduced by Senators Klobuchar and Crapo on September 10, 2009. The bill was read twice and referred to the Senate Committee on Environment and Public Works. On December 2, 2009, the Full Committee and Subcommittee on Superfund, Toxics and Environmental Health held a joint hearing entitled, “Oversight Hearing on the Federal Toxic Substances Control Act.” At the hearing, Senator Klobuchar posed questions to EPA Administrator Jackson about federal regulations for formaldehyde in composite wood products. On December 10, 2009, the full Committee on Environment and Public Works considered S. 1660 and ordered favorably reported a substitute amendment.

HEARINGS

The Committee did not hold a legislative hearing on S. 1660.

ROLLCALL VOTES

There were no rollcall votes. The Committee on Environment and Public Works met to consider S. 1660 on December 10, 2009. A quorum of the Committee being present, S. 1660 was reported favorably as amended by a voice vote.

REGULATORY IMPACT STATEMENT

In compliance with paragraph 11(b) of rule XXVI of the Standing Rules of the Senate, the Committee states that there are not expected to be significant costs to private entities under this legislation.

MANDATES ASSESSMENT

In compliance with the Unfunded Mandates Reform Act of 1995 (Public Law 104-4), the Committee finds that S. 1660 would impose no Federal intergovernmental unfunded mandates on State, local, or tribal governments.

CONGRESSIONAL BUDGET OFFICE COST ESTIMATE

Section 403 of the Congressional Budget and Impoundment Control Act requires that a statement of the cost of the reported bill, prepared by the Congressional Budget Office, be included in the report. That statement follows:

Summary: S. 1660, Formaldehyde Standards for Composite Wood Products Act, As ordered reported by the Senate Committee on Environment and Public Works on December 10, 2009.

S. 1660 would apply the California formaldehyde emission standard to hardwood plywood, medium-density fiberboard, and particle board that is sold, supplied, offered for sale, or manufactured in the United States. The bill would prescribe several exemptions. Under this legislation, the Environmental Protection Agency (EPA) would be required to issue regulations to implement that standard no later than January 1, 2012, and revise regulations relating to the importation of products covered under this legislation no later than July 1, 2011. EPA also would be required to provide annual reports to the Congress through 2014 on the status of implementing the standard. Finally, within 180 days of enactment, the Secretary of Housing and Urban Development would be required to update regulations relating to formaldehyde emission levels of products installed in manufactured homes.

CBO estimates that implementing this legislation would cost about \$3 million over the 2010–2011 period, assuming availability of appropriated funds, to issue regulations and prepare reports. Enacting the bill would not affect direct spending or revenues.

S. 1660 contains no intergovernmental mandates as defined in the Unfunded Mandates Reform Act (UMRA) and would impose no costs on state, local, or tribal governments.

Requiring manufacturers, sellers, suppliers and importers of composite wood products to meet a national standard for formaldehyde emissions would constitute a private-sector mandate as defined in UMRA. Because of uncertainty about the extent to which entities would already be in compliance with the requirements in the bill, CBO cannot determine whether the cost of the mandate would exceed the annual threshold established in UMRA for private-sector mandates (\$141 million in 2010, adjusted annually for inflation).

The national standard would be based on the standard established by the California Air Resources Board (CARB) which is currently being phased in by the state of California. CARB estimated that the cost of complying with the state standard would exceed

\$100 million. According to information from the industry, the cost to comply with a national standard would significantly exceed the cost of the CARB standard. At the same time, industry sources indicate that a significant portion of the industry nationwide already complies with the standard for formaldehyde emissions established by CARB.

The CBO staff contacts for this estimate are Susanne S. Mehlman (for Federal costs) and Amy Petz (for the impact on the private-sector). This estimate was approved by Theresa Gullo, Deputy Assistant Director for Budget Analysis.

JANUARY 7, 2010.

Hon. BARBARA BOXER,
Chairman, Committee on Environment and Public Works,
U.S. Senate, Washington, DC.

DEAR MADAM CHAIRMAN: The Congressional Budget Office has prepared the enclosed cost estimate for S. 1660, the Formaldehyde Standards for Composite Wood Products Act.

If you wish further details on this estimate, we will be pleased to provide them. The CBO staff contact is Susanne S. Mehlman.

Sincerely,

DOUGLAS W. ELMENDORF.

Enclosure.

S. 1660—Formaldehyde Standards for Composite Wood Products Act

S. 1660 would apply the California formaldehyde emission standard to hardwood plywood, medium-density fiberboard, and particle board that is sold, supplied, offered for sale, or manufactured in the United States. The bill would prescribe several exemptions. Under this legislation, the Environmental Protection Agency (EPA) would be required to issue regulations to implement that standard no later than January 1, 2012, and revise regulations relating to the importation of products covered under this legislation no later than July 1, 2011. EPA also would be required to provide annual reports to the Congress through 2014 on the status of implementing the standard. Finally, within 180 days of enactment, the Secretary of Housing and Urban Development would be required to update regulations relating to formaldehyde emission levels of products installed in manufactured homes.

CBO estimates that implementing this legislation would cost about \$3 million over the 2010–2011 period, assuming availability of appropriated funds, to issue regulations and prepare reports. Enacting the bill would not affect direct spending or revenues.

S. 1660 contains no intergovernmental mandates as defined in the Unfunded Mandates Reform Act (UMRA) and would impose no costs on state, local, or tribal governments.

Requiring manufacturers, sellers, suppliers and importers of composite wood products to meet a national standard for formaldehyde emissions would constitute a private-sector mandate as defined in UMRA. Because of uncertainty about the extent to which entities would already be in compliance with the requirements in the bill, CBO cannot determine whether the cost of the mandate would exceed the annual threshold established in UMRA for pri-

vate-sector mandates (\$141 million in 2010, adjusted annually for inflation).

The national standard would be based on the standard established by the California Air Resources Board (CARB) which is currently being phased in by the state of California. CARB estimated that the cost of complying with the state standard would exceed \$100 million. According to information from the industry, the cost to comply with a national standard would significantly exceed the cost of the CARB standard. At the same time, industry sources indicate that a significant portion of the industry nationwide already complies with the standard for formaldehyde emissions established by CARB.

The CBO staff contacts for this estimate are Susanne S. Mehlman (for Federal costs) and Amy Petz (for the impact on the private-sector). This estimate was approved by Theresa Gullo, Deputy Assistant Director for Budget Analysis.

CHANGES IN EXISTING LAW

In compliance with section 12 of rule XXVI of the Standing Rules of the Senate, changes in existing law made by the bill as reported are shown as follows: Existing law proposed to be omitted is enclosed in [black brackets], new matter is printed in *italic*, existing law in which no change is proposed is shown in roman:

* * * * *

TOXIC SUBSTANCES CONTROL ACT

* * * * *

TITLE V—HEALTHY HIGH-PERFORMANCE SCHOOLS

SEC. 501. GRANTS FOR HEALTHY SCHOOL ENVIRONMENTS.

(a) IN GENERAL.—*The Administrator, in consultation with the Secretary of Education, may provide grants to States for use in—*
(1) * * *

* * * * *

TITLE VI—FORMALDEHYDE STANDARDS FOR COMPOSITE WOOD PRODUCTS

SEC. 601. FORMALDEHYDE STANDARDS.

(a) DEFINITIONS.—*In this section:*

(1) FINISHED GOOD.—

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

(i) hardwood plywood;

(ii) particleboard; or

(iii) medium-density fiberboard.

(B) INCLUSIONS.—*The term ‘finished good’ includes—*

(i) manufactured housing; and

(ii) recreational vehicles.

- (C) *EXCLUSIONS.*—*The term ‘finished good’ does not include—*
- (i) *any component part or other part used in the assembly of a finished good; or*
 - (ii) *any finished good that has previously been sold or supplied to an individual or entity that purchased or acquired the finished good in good faith for purposes other than resale, such as—*
 - (I) *an antique; or*
 - (II) *secondhand furniture.*
- (2) *HARDWOOD PLYWOOD.*—
- (A) *IN GENERAL.*—*The term ‘hardwood plywood’ means a hardwood or decorative panel that is—*
- (i) *intended for interior use; and*
 - (ii) *composed of (as determined under the standard numbered ANSI/HPVA HP-1-2004 (or a successor standard)) an assembly of layers or plies of veneer, joined by an adhesive with—*
 - (I) *lumber core;*
 - (II) *particleboard core;*
 - (III) *medium-density fiberboard core;*
 - (IV) *hardboard core; or*
 - (V) *any other special core or special back material.*
- (B) *EXCLUSIONS.*—*The term ‘hardwood plywood’ does not include—*
- (i) *a laminated product;*
 - (ii) *military-specified plywood;*
 - (iii) *curved plywood; or*
 - (iv) *any other product specified in—*
 - (I) *the standard entitled ‘Voluntary Product Standard—Structural Plywood’ and numbered PS 1-07 (or a successor standard); or*
 - (II) *the standard entitled ‘Voluntary Product Standard—Performance Standard for Wood-Based Structural-Use Panels’ and numbered PS 2-04 (or a successor standard).*
- (3) *LAMINATED PRODUCT.*—*The term ‘laminated product’ means a product—*
- (A) *in which a wood veneer is affixed to—*
- (i) *a particleboard platform;*
 - (ii) *a medium-density fiberboard platform; or*
 - (iii) *a veneer-core platform; and*
- (B) *that is—*
- (i) *a component part;*
 - (ii) *used in the construction or assembly of a finished good; and*
 - (iii) *produced by the manufacturer or fabricator of the finished good in which the product is incorporated.*
- (4) *MEDIUM-DENSITY FIBERBOARD.*—*The term ‘medium-density fiberboard’ means a panel composed of cellulosic fibers made by dry forming and pressing a resinated fiber mat (as determined under the standard numbered ANSI A208.2-2009 (or a successor standard)).*
- (5) *NO-ADDED FORMALDEHYDE-BASED RESIN.*—

(A) *IN GENERAL.*—The term ‘no-added formaldehyde-based resin’ means a resin formulated with no added formaldehyde as part of the resin cross-linking structure that meets the performance standard contained in section 93120.3(c) of title 17, California Code of Regulations (as in effect on July 28, 2009).

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

- (i) soy;
- (ii) polyvinyl acetate; or
- (iii) methylene diisocyanate.

(6) *PARTICLEBOARD.*—

(A) *IN GENERAL.*—The term ‘particleboard’ means a panel composed of cellulosic material in the form of discrete particles (as distinguished from fibers, flakes, or strands) that are pressed together with resin (as determined under the standard numbered ANSI A208.1–2009 (or a successor standard)).

(B) *EXCLUSIONS.*—The term ‘particleboard’ does not include any product specified in the standard entitled ‘Voluntary Product Standard–Performance Standard for Wood-Based Structural-Use Panels’ and numbered PS 2–04 (or a successor standard).

(7) *ULTRA LOW-EMITTING FORMALDEHYDE RESIN.*—

(A) *IN GENERAL.*—The term ‘ultra low-emitting formaldehyde resin’ means a resin formulated using a process the average formaldehyde emissions of which are consistently below the phase 2 emission standards contained in the airborne toxic control measure for composite wood products described in section 93120.3(d) of title 17, California Code of Regulations (as in effect on July 28, 2009).

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

- (i) melamine-urea-formaldehyde resin;
- (ii) phenol formaldehyde resin; and
- (iii) resorcinol formaldehyde resin.

(b) *REQUIREMENT.*—

(1) *IN GENERAL.*—Except as provided in subsection (d), effective beginning on the date that is 180 days after the date of enactment of this section, the formaldehyde emission standard contained in table 1 of section 93120.2(a) of title 17, California Code of Regulations (relating to an airborne toxic control measure to reduce formaldehyde emissions from composite wood products) (as in effect on July 28, 2009), shall apply to hardwood plywood, medium-density fiberboard, and particleboard sold, supplied, offered for sale, or manufactured in the United States.

(2) *APPLICABILITY.*—The formaldehyde emission standard referred to in paragraph (1) shall apply regardless of whether an applicable hardwood plywood, medium-density fiberboard, or particleboard is—

- (A) in the form of an unfinished panel; or
- (B) incorporated into a finished good.

(c) *EXEMPTIONS.*—The formaldehyde emission standard referred to in subsection (b)(1) shall not apply to—

- (1) *hardboard*;
- (2) *structural plywood, as specified in the standard entitled 'Voluntary Product Standard—Structural Plywood' and numbered PS 1–07 (or a successor standard)*;
- (3) *structural panels, as specified in the standard entitled 'Voluntary Product Standard—Performance Standard for Wood-Based Structural-Use Panels' and numbered PS 2–04 (or a successor standard)*;
- (4) *structural composite lumber, as specified in the standard entitled 'Standard Specification for Evaluation of Structural Composite Lumber Products' and numbered ASTM D 5456–06 (or a successor standard)*;
- (5) *oriented strand board*;
- (6) *glued laminated lumber, as specified in the standard entitled 'Structural Glued Laminated Timber' and numbered ANSI A190.1–2002 (or a successor standard)*;
- (7) *prefabricated wood I-joists, as specified in the standard entitled 'Standard Specification for Establishing and Monitoring Structural Capacities of Prefabricated Wood I-Joists' and numbered ASTM D 5055–05 (or a successor standard)*;
- (8) *finger-jointed lumber*;
- (9) *wood packaging (including pallets, crates, spools, and dunnage)*; or
- (10) *composite wood products used inside new vehicles (as defined in section 430 of the California Vehicle Code) (excluding recreational vehicles), rail cars, boats, aerospace craft, or aircraft.*

(d) **REGULATIONS.**—

(1) **IN GENERAL.**—*Not later than January 1, 2011, the Administrator shall promulgate regulations to implement the formaldehyde emission standard required under subsection (b) in a manner that ensures that compliance with the standard is equivalent to compliance with the standard contained in table 1 of section 93120.2(a) of title 17, California Code of Regulations (as in effect on July 28, 2009).*

(2) **INCLUSIONS.**—*The regulations promulgated pursuant to paragraph (1) shall include provisions relating to—*

- (A) *labeling*;
- (B) *chain of custody requirements*;
- (C) *sell-through provisions*;
- (D) *ultra low-emitting formaldehyde resins*;
- (E) *no-added formaldehyde-based resins*;
- (F) *finished goods*;
- (G) *third-party testing and certification*;
- (H) *auditing and reporting of third-party certifiers*;
- (I) *recordkeeping*; and
- (J) *enforcement.*

(3) **IMPORT REGULATIONS.**—*Not later than July 1, 2011, the Administrator, in coordination with the Commissioner of Customs and Border Protection and other appropriate Federal departments and agencies, shall revise regulations promulgated pursuant to section 13 as the Administrator determines to be necessary to ensure compliance with this section.*

(4) **MODIFICATION OF STANDARDS.**—*The Administrator may modify, by regulation, any reference to an industry standard*

contained in this subsection if the standard is subsequently updated.

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

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