

## Prepublication Copy Notice:

The EPA Administrator signed the following *Federal Register* document on January 26, 2018:

Title: **Voluntary Consensus Standards Update; Formaldehyde Emission Standards for Composite Wood Products** (RIN 2070-AK36)

Action: Final Rule

FRL: 9972-68

Docket No.: **EPA-HQ-OPPT-2017-0245**

This is a **prepublication version** of the document that EPA is submitting for publication in the *Federal Register*. While the Agency has taken steps to ensure the accuracy of this prepublication version of the document, **it is not the official version** of the document for purposes of public comment or judicial review. Please refer to the official version of the document that will appear in a forthcoming *Federal Register* publication.

Once the official version of the document publishes in the *Federal Register*, the prepublication version of the document posted on the agency's internet will be replaced with a link to the document that appears in the *Federal Register* publication. At that time, you will also be able to access the on-line docket for this *Federal Register* document at <http://www.regulations.gov>.

For further information about the docket and, if applicable, instructions for commenting, please consult the ADDRESSES section in the front of the *Federal Register* document.

**ENVIRONMENTAL PROTECTION AGENCY**

**40 CFR Part 770**

**[EPA-HQ-OPPT-2017-0245; FRL-9972-68]**

**RIN 2070-AK36**

**Voluntary Consensus Standards Update; Formaldehyde Emission Standards for Composite Wood Products**

**AGENCY:** Environmental Protection Agency (EPA).

**ACTION:** Final Rule.

**SUMMARY:** EPA is publishing this final rule to revise the formaldehyde standards for composite wood products final rule, published in the **Federal Register** on December 12, 2016 (81 FR 89674). The revision will update multiple voluntary consensus standards that have been updated, superseded, or withdrawn since publication of the notice of proposed rulemaking on June 10, 2013 (78 FR 34796) and provide a technical correction to allow panel producers to correlate their approved quality control test method to the ASTM E1333-14 test chamber, or, upon showing equivalence, the ASTM D6007-14 test chamber.

**DATES:** This final rule is effective on [*insert date of publication in the Federal Register*].

**ADDRESSES:** The docket for this action, identified by docket identification (ID) number EPA-HQ-OPPT-2017-0245, is available at <http://www.regulations.gov> or at the Office of Pollution Prevention and Toxics Docket (OPPT Docket), Environmental Protection Agency Docket Center (EPA/DC), West William Jefferson Clinton Bldg., Rm. 3334, 1301 Constitution Ave., NW., Washington, DC. The Public Reading Room is open

from 8:30 a.m. to 4:30 p.m., Monday through Friday, excluding legal holidays. The telephone number for the Public Reading Room is (202) 566-1744, and the telephone number for the OPPT Docket is (202) 566-0280. Please review the visitor instructions and additional information about the docket available at <http://www.epa.gov/dockets>.

**FOR FURTHER INFORMATION CONTACT:** *For technical information contact:*

Erik Winchester, National Program Chemicals Division, Office of Pollution Prevention and Toxics, Environmental Protection Agency, 1200 Pennsylvania Ave., NW., Washington, DC 20460-0001; telephone number: (202) 564-6450; email address: [winchester.erik@epa.gov](mailto:winchester.erik@epa.gov).

*For general information contact:* The TSCA-Hotline, ABVI-Goodwill, 422 South Clinton Ave., Rochester, NY 14620; telephone number: (202) 554-1404; email address: [TSCA-Hotline@epa.gov](mailto:TSCA-Hotline@epa.gov).

**SUPPLEMENTARY INFORMATION:**

**I. Does this Action Apply to Me?**

You may be affected by this final rule if you manufacture (including import), sell, supply, offer for sale, test, or work with certification firms that certify hardwood plywood, medium-density fiberboard, particleboard, and/or products containing these composite wood materials in the United States. The following list of North American Industrial Classification System (NAICS) codes is not intended to be exhaustive, but rather provides a guide to help readers determine whether this document applies to them. Potentially affected entities may include:

- Veneer, plywood, and engineered wood product manufacturing (NAICS code 3212).

- Manufactured home (mobile home) manufacturing (NAICS code 321991).
- Prefabricated wood building manufacturing (NAICS code 321992).
- Furniture and related product manufacturing (NAICS code 337).
- Furniture merchant wholesalers (NAICS code 42321).
- Lumber, plywood, millwork, and wood panel merchant wholesalers (NAICS code 42331).
- Other construction material merchant wholesalers (NAICS code 423390), *e.g.*, merchant wholesale distributors of manufactured homes (*i.e.*, mobile homes) and/or prefabricated buildings.
- Furniture stores (NAICS code 4421).
- Building material and supplies dealers (NAICS code 4441).
- Manufactured (mobile) home dealers (NAICS code 45393).
- Motor home manufacturing (NAICS code 336213).
- Travel trailer and camper manufacturing (NAICS code 336214).
- Recreational vehicle (RV) dealers (NAICS code 441210).
- Recreational vehicle merchant wholesalers (NAICS code 423110).
- Engineering services (NAICS code 541330).
- Testing laboratories (NAICS code 541380).
- Administrative management and general management consulting services (NAICS code 541611).
- All other professional, scientific, and technical services (NAICS code 541990).
- All other support services (NAICS code 561990).
- Business associations (NAICS code 813910).

- Professional organizations (NAICS code 813920).

If you have any questions regarding the applicability of this action, please consult the technical person listed under **FOR FURTHER INFORMATION CONTACT**.

## **II. Background**

### *A. What Action is the Agency Taking?*

Following the publication of a Notice of Proposed Rulemaking (*see* 78 FR 34796 and 78 FR 34820) and promulgation of EPA's December 12, 2016 final rule addressing formaldehyde emission standards for composite wood products (81 FR 89674), multiple voluntary consensus standards that were incorporated by reference have been updated or withdrawn and superseded. EPA is incorporating by reference into the regulations at 40 CFR part 770 current versions of the voluntary consensus standards assembled by:

- APA – the Engineered Wood Association,
- Composite Panel Association (CPA),
- American National Standards Institute (ANSI),
- American Society for Testing and Materials (ASTM),
- International Organization for Standardization (ISO),
- Japanese Standards Association (JIS), and
- National Institute of Standards and Technology (NIST).

EPA is taking action to update several voluntary consensus standards in the formaldehyde emission standards for composite wood products final rule to reflect the current editions that are in-use by regulated entities and industry stakeholders. EPA believes that this action is warranted to facilitate regulated entities using the most up-to-date voluntary consensus standards to comply with the final rule.

*1. Direct final rule and notice of proposed rulemaking.* The Agency published a direct final rule on October 25, 2017 (82 FR 49287) to update several voluntary consensus standards that since publication of the December 12, 2016 final rule, have been updated, superseded, or withdrawn. Additionally, the action would have updated an existing regulatory provision regarding the correlation of quality control test methods. The Agency solicited public comment on this action by issuing a companion Notice of Proposed Rulemaking (82 FR 49308) with the direct final rule in the event that EPA received adverse public comment and would subsequently have to withdraw the direct final rule. EPA received six comments on this action; three comments were not germane to the action, two were supportive, and one of which the Agency considered to be adverse; thus, the direct final rule was withdrawn on December 8, 2017, as published in the **Federal Register** (82 FR 57874).

Having withdrawn the direct final rule (82 FR 49287), EPA is taking action based on the Notice of Proposed Rulemaking (82 FR 49308), which includes consideration of all public comments submitted in response to the provisions discussed in the direct final rule and companion proposal. Today, the Agency is issuing this final rule and a Response to Comments document which addresses all of the comments received on this action. The response to comments document can be found in the supporting documents section of the final rule section of the docket for this action.

*2. Final rule.* EPA is updating the references for multiple voluntary consensus standards that were incorporated by reference in the December 12, 2016 formaldehyde emission standards for composite wood products final rule because they have been updated, superseded, and/or withdrawn by their respective organization, as proposed.

Table 1 in this Unit outlines only the voluntary consensus standards being addressed in this rulemaking and their respective updated versions. All other voluntary consensus standards in the formaldehyde emission standards for composite wood products final rule will continue to be incorporated by reference as they appear in that final rule, and any future versions would be considered in a later rulemaking.

**Table 1: Voluntary Consensus Standards Comparison**

<b>Current standard established by final rule (81 FR 89674)</b>	<b>Status</b>	<b>Update to be promulgated effective <i>[insert date of publication in the Federal Register]</i></b>
ANSI/AITC A190.1-2002 American National Standard for Structural Glued Laminated Timber <sup>1</sup>	Updated version	ANSI A190.1-2017 Standard for Wood Products – Structural Glued Laminated Timber <sup>1</sup>
ANSI A208.1-2009 American National Standard for Particleboard	Updated version	ANSI A208.1-2016 American National Standard for Particleboard
ANSI A208.2-2009 American National Standard for Medium Density Fiberboard for Interior Applications	Updated version	ANSI A208.2-2016 American National Standard for Medium Density Fiberboard for Interior Applications
ANSI-HPVA HP-1-2009 American National Standard for Hardwood and Decorative Plywood	Updated version	ANSI-HPVA HP-1-2016 American National Standard for Hardwood and Decorative Plywood
ASTM D5055-05 Standard Specification for Establishing and Monitoring Structural Capacities of Prefabricated Wood I-Joists	Updated version	ASTM D5055-16 Standard Specification for Establishing and Monitoring Structural Capacities of Prefabricated Wood I-Joists
ASTM D5456-06 Standard Specification for Evaluation of Structural Composite Lumber Products	Updated version	ASTM D5456-14b Standard Specification for Evaluation of Structural Composite Lumber Products
ASTM D5582-00 Standard Test Method for Determining Formaldehyde	Updated version	ASTM D5582-14 Standard Test Method for Determining Formaldehyde

Levels from Wood Products Using a Desiccator		Levels from Wood Products Using a Desiccator
ASTM D6007-02 Standard Test Method for Determining Formaldehyde Concentrations in Air from Wood Products Using a Small-Scale Chamber	Updated version	ASTM D6007-14 Standard Test Method for Determining Formaldehyde Concentrations in Air from Wood Products Using a Small-Scale Chamber
ASTM E1333-10 Standard Test Method for Determining Formaldehyde Concentration in Air and Emission Rated from Wood Products Using a Large Chamber	Updated version	ASTM E1333-14 Standard Test Method for Determining Formaldehyde Concentration in Air and Emission Rates from Wood Products Using a Large Chamber
BS EN 717-2: 1995 Wood-based panels – Determination of formaldehyde release – Part 2: Formaldehyde release by the gas analysis method	Withdrawn, superseded by BS EN ISO 12460-3:2015	BS EN ISO 12460-3:2015 Wood-based panels – Determination of formaldehyde release. Part 3: Gas analysis method
BS EN 120: 1992 Wood-based panels. Determination of formaldehyde content – Extraction method called the perforator method	Withdrawn, superseded by BS EN ISO 12460-5:2015	BS EN ISO 12460-5:2015 Wood-based panels – Determination of formaldehyde release. Part 5: Extraction method (called the perforator method)
JIS A1460:2001(E) Building boards-determination of formaldehyde emission – Desiccator method	Updated version	JIS A1460:2015 Determination of the emission of formaldehyde from building boards – Desiccator method
PS -1-07 Structural Plywood	Updated version	PS -1-09 Structural Plywood
PS -2-04 Performance Standard for Wood-Based Structural-Use Panels	Updated version	PS -2-10 Performance Standard for Wood-Based Structural-Use Panels

<sup>1</sup>Note that the ANSI/AITC 190.1-2002 Standard is no longer under the American Institute of Timber Construction purview in its 2017 version, and is now an APA – the Engineered Wood Association managed standard.

EPA will adopt all of the updated versions of the standards referenced in Table 1 at this time. Any future versions or updates to withdrawn/superseded standards will be



announced by EPA through a separate **Federal Register** notice with opportunity for public comment.

EPA is also taking final action on several technical corrections to references to the ISO/IEC 17020:2012 in the final rule and testing correlation requirements under § 770.20, as discussed below, to the December 12, 2016 final rule. The Agency has not received any adverse comment related specifically to these technical corrections and is publishing this final rule with the following changes.

This final rule updates the existing reference standard in the final rule text from International Organization for Standardization (ISO)/International Electrotechnical Commission (IEC) 17020: 1998(E) – Conformity assessment – Requirements for the operation of various types of bodies performing inspection (i.e., ISO/IEC 17020: 1998) to the 2012 version of this standard that was previously incorporated by reference (i.e., ISO/IEC 17020:2012(E)). The Agency intended for the final rule to reflect the 2012 version upon publication on December 12, 2016; however, that updated version was not reflected everywhere in the published rule.

EPA is also finalizing a revision at § 770.20(d)(2)(i) to allow the correlation of the tests conducted through the quality control methods listed in § 770.20(b) to either ASTM E1333-14 or, upon a showing of equivalence, ASTM D6007-14 test chamber tests. The California Air Resources Board (CARB) under its Air Toxic Control Measure (ATCM) has approved the use of ASTM D6007-14 test chambers that have previously shown equivalence under § 770.20(d) to an ASTM E1333-14 test chamber to be correlated to other mill quality control method tests listed in § 770.20(b). According to CARB staff, this is the commonly used method for conducting correlation between test

methods. Several third-party certifiers, regulated entities and their associations expressed the importance of allowing mill quality control tests to be correlated to ASTM D6007-14 test chambers as they currently operate under the CARB ATCM using this approach and not allowing test chamber correlation in this manner under TSCA Title VI would significantly disrupt product certifications and supply chain processes. EPA agrees that significant disruptions would occur, including problems with completing testing which would lead to significant shortfalls in supply of TSCA Title VI certified product if the correlation of mill quality control tests were allowed only through the use of ASTM E1333-14 test chambers. Additionally, based on consultations with the CARB staff, allowing correlation to be established through the use of ASTM D6007-14 test chambers in addition to the ASTM E1333-14 test chambers does not result in a decrease in testing reliability and yields comparable results if the ASTM D6007-14 test chambers have shown equivalence to the ASTM E1333-14 test chambers. To maintain consistency with this revision, EPA is also updating the definition of *quality control limit (QCL)* to allow for the use of the ASTM E1333-14 test chamber, or, upon showing equivalence, the ASTM D6007-14 test chamber.

To aid mills and third-party certifiers in understanding the practical implications of this revision, and to help them implement this revision into the TSCA Title VI program, the Agency is clarifying that data generated beginning December 12, 2016 using an ASTM E1333-10 test chamber, or, upon showing equivalence, an ASTM D6007-02 test chamber, and a panel producer's quality control (QC) test method under § 770.20(b)(1) may be used to establish the required annual correlation. Data generated beginning December 12, 2016 from a panel producer's QC test method under §

770.20(b)(1) that has been correlated to either an ASTM E1333-10 test chamber, or, upon showing equivalence, an ASTM D6007-02 test chamber, may be used to certify compliant composite wood products under the TSCA Title VI program until a new annual correlation is required. Beginning [*Insert the effective date of this final rule*], data used to establish correlations must be generated using an ASTM E1333-14 test chamber, or, upon showing equivalence, an ASTM D6007-14 test chamber and the panel producer's QC test method under § 770.20(b)(1).

*B. What is the Agency's Authority for Taking this Action?*

These regulations are established under authority of Section 601 of TSCA, 15 U.S.C. § 2697.

### **III. Effective Date**

This final rule is not subject to the 30-day delay of effective date generally required by 5 U.S.C. § 553(d) because the amendments relieve a restriction. *See* 5 U.S.C. § 553(d)(1). Specifically, the current regulation requires the correlation of the tests conducted through the quality control methods listed in § 770.20(b) to be to ASTM E1333-14 test chamber tests. The amendments allow the correlation of the tests conducted through the quality control methods listed in § 770.20(b) to be to *either* ASTM E1333-14 *or*, upon a showing of equivalence, ASTM D6007-14 test chamber tests. This will provide another option for testing and facilitate compliance by the regulated entities. The amendments regarding the voluntary consensus standards reflect the current voluntary consensus standards. To the extent that the regulation required regulated entities to demonstrate compliance according to outdated standards that have been updated, superseded, and/or withdrawn by their respective organization, this change

relieves that restriction. This will avoid confusion over compliance, as the amended versions represent the current voluntary consensus standards in use. Moreover, EPA also finds that there is “good cause” under 5 U.S.C. § 553(d)(3) to make the updates to the voluntary consensus standards effective upon publication. The references for the voluntary consensus standards are being updated because the prior versions have been updated, superseded, and/or withdrawn by their respective organization. If these updates were delayed by 30 days, regulated entities would face uncertainty about whether current standards could be used to comply with the rule. In addition, the regulated entities do not need a 30-day delay in the effective date to prepare for these amendments because they are already familiar with and able to apply the current voluntary consensus standards.

#### **IV. Statutory and Executive Order Reviews**

##### *A. Executive Order 12866: Regulatory Planning and Review and Executive Order 13563: Improving Regulation and Regulatory Review*

This action is not a significant regulatory action and was therefore not submitted to the Office of Management and Budget (OMB) for review.

##### *B. Executive Order 13771: Reducing Regulations and Controlling Regulatory Costs*

This action is not an Executive Order 13771 regulatory action because this action is not significant under Executive Order 12866.

##### *C. Paperwork Reduction Act (PRA)*

This action does not impose any new information collection burden under the PRA because it does not create any new reporting or recordkeeping obligations. OMB has previously approved the information collection activities contained in the existing regulations and has assigned OMB control number 2070-0185.

*D. Regulatory Flexibility Act (RFA)*

The Agency certifies that this action will not have a significant economic impact on a substantial number of small entities under the RFA. In making this determination, the impact of concern is any significant adverse economic impact on small entities. An agency may certify that a rule will not have a significant economic impact on a substantial number of small entities if the rule relieves regulatory burden, has no net burden or otherwise has a positive economic effect on the small entities subject to the rule. This rule updates the voluntary consensus standards that were incorporated by reference in the final rule to the most current versions. The updated versions of the standards are substantially similar to the previous versions. EPA expects that many small entities are already complying with the updated versions of the standards listed in Table

This action would relieve these entities of the burden of having to also demonstrate compliance with outdated versions of these standards. This action also provides an amendment to the equivalence and correlation requirements at § 770.20 that would reduce testing burdens without compromising the integrity of the data collected by panel producers and third party certifiers to demonstrate compliance with the emission standards in the final rule. This action will relieve or have no net regulatory burden for directly regulated small entities.

*E. Unfunded Mandates Reform Act (UMRA)*

This action does not contain any unfunded mandate as described in UMRA, 2 U.S.C. §§ 1531–1538, and does not significantly or uniquely affect small governments. The action imposes no enforceable duty on any state, local or tribal governments or the private sector.

*F. Executive Order 13132: Federalism*

This action does not have federalism implications. It will not have substantial direct effects on the states, on the relationship between the national government and the states, or on the distribution of power and responsibilities among the various levels of government.

*G. Executive Order 13175: Consultation and Coordination with Indian Tribal Governments*

This action does not have tribal implications as specified in Executive Order 13175. This final rule will not impose substantial direct compliance costs on Indian tribal governments. Thus, Executive Order 13175 does not apply to this action.

*H. Executive Order 13045: Protection of Children from Environmental Health Risks and Safety Risks.*

This action is not subject to Executive Order 13045 because it does not concern an environmental health risk or safety risk. This action is not subject to Executive Order 13045 because it is not economically significant as defined in Executive Order 12866, and because EPA does not believe the environmental health or safety risks addressed by this action present a disproportionate risk to children. As addressed in Unit II.A., this action would not materially alter the final rule as published, and will update existing voluntary consensus standards incorporated by reference in the final rule and provide an amendment to the testing requirements at § 770.20.

*I. Executive Order 13211: Actions Concerning Regulations That Significantly Affect Energy Supply, Distribution, or Use.*

This action is not subject to Executive Order 13211, because it is not a significant regulatory action under Executive Order 12866. *J. National Technology Transfer and Advancement Act (NTTAA)*

This action involves technical standards, many of which EPA is directed to use by TSCA Title VI. Technical standards identified in the statute have been updated since publication of the notice of proposed rulemaking (78 FR 34795) by the technical standard management bodies which antiquates the statutorily required versions. EPA has reviewed the updated versions of the technical standards published in the final rule (81 FR 89674) and determined them to be appropriate, and readily available for use by regulated entities.

EPA is updating voluntary consensus standards originally published in the final rule (81 FR 89674) as issued by ASTM International, ANSI, APA, HPVA, NIST, BSI, and JIS. Copies of the standards referenced in the regulatory text have been placed in the docket for this rule. Additionally, each of these standards is available for inspection at the OPPT Docket in the EPA Docket Center (EPA/DC) at Rm. 3334, EPA, West Bldg., 1301 Constitution Ave. NW., Washington, DC. The EPA/DC Public Reading Room hours of operation are 8:30 a.m. to 4:30 p.m., Monday through Friday, excluding legal holidays. The telephone number of the EPA/DC Public Reading room is (202) 566-1744, and the telephone number for the OPPT Docket is (202) 566-0280. The following voluntary consensus standards are being updated:

(a) APA, CPA, and HPVA standards. Copies of these standards may be obtained from the specific publisher, as noted below, or from the American National Standards Institute, 1899 L Street NW., 11th Floor, Washington, DC 20036, or by calling (202) 293-8020, or at <http://ansi.org> Note that ANSI/APA A190.1-2017 is published by APA –

the Engineered Wood Association. ANSI A208.1-2016 and ANSI A208.2-2016 are published by the Composite Panel Association. And ANSI ANSI/HPVA-HP-1-2016 is published by the Hardwood Plywood Veneer Association.

1. ANSI/APA A190.1-2017, *Structural Glued Laminated Timber*. This standard describes minimum requirements for the manufacture and production of structural glued laminated timber, including size tolerances, grade combinations, lumber, adhesives, and appearance grades.

2. ANSI A208.1-2016, *American National Standard, Particleboard*. This standard describes the requirements and test methods for dimensional tolerances, physical and mechanical properties and formaldehyde emissions for particleboard, along with methods of identifying products conforming to the standard.

3. ANSI A208.2-2016, *American National Standard, Medium Density Fiberboard (MDF) for Interior Applications*. This standard describes the requirements and test methods for dimensional tolerances, physical and mechanical properties and formaldehyde emissions for MDF, along with methods of identifying products conforming to the standard.

4. ANSI/HPVA HP-1-2016, *American National Standard for Hardwood and Decorative Plywood*. This standard details the specific requirements for all face, back, and inner ply grades of hardwood plywood as well as formaldehyde emission limits, moisture content, tolerances, sanding, and grade marking.

(b) ASTM material. Copies of these materials may be obtained from ASTM International, 100 Barr Harbor Dr., P.O. Box C700, West Conshohocken, PA 19428-2959, or by calling (877) 909-ASTM, or at <http://www.astm.org>.



1. ASTM E1333-14, *Determining Formaldehyde Concentrations in Air and Emission Rates from Wood Products Using a Large Chamber*. This test method measures the formaldehyde concentration in air and emission rate from wood products containing formaldehyde under conditions designed to simulate product use. The concentration in air and emission rate is determined in a large chamber under specific test conditions of temperature and relative humidity. The general procedures are also intended for testing product combinations at product-loading ratios and at air-exchange rates typical of the indoor environment.

2. ASTM D6007-14, *Determining Formaldehyde Concentrations in Air from Wood Products Using a Small-Scale Chamber*. This test method measures the formaldehyde concentrations in air from wood products under defined test conditions of temperature and relative humidity. Results obtained from this small-scale chamber test method are intended to be comparable to results obtained testing larger product samples by the large chamber test method for wood products, Test Method E 1333.

3. ASTM D5582-14, *Determining Formaldehyde Levels from Wood Products Using a Dessicator*. This test method describes a small scale procedure for measuring formaldehyde emissions potential from wood products. The formaldehyde level is determined by collecting airborne formaldehyde in a small distilled water reservoir within a closed desiccator. The quantity of formaldehyde is determined by a chromotropic acid test procedure.

4. ASTM D5456-14b, *Evaluation of Structural Composite Lumber Products*. This specification describes initial qualification sampling, mechanical and physical tests, analysis, and design value assignments. Requirements for a quality-control program and

cumulative evaluations are included to ensure maintenance of allowable design values for the product.

5. ASTM D5055-16, *Establishing and Monitoring Structural Capacities of Prefabricated Wood I-Joists*. This specification gives procedures for establishing, monitoring, and reevaluating structural capacities of prefabricated wood I-joists, such as shear, moment, and stiffness. The specification also provides procedures for establishing common details and itemizes certain design considerations specific to wood I-joists.

(c) CEN materials. Copies of these materials are not directly available from the European Committee for Standardization, but from one of CEN's National Members, Affiliates, or Partner Standardization Bodies. To purchase a standard, go to CEN's Web site, <http://www.cen.eu>, and select “Products” for more detailed information.

1. BS EN 12460-3: 2015, *Wood-based Panels – Determination of Formaldehyde Release [Part 3: Gas Analysis Method]*. This British Version of the European standard describes a procedure for determination of accelerated formaldehyde release from wood-based panels.

2. BS EN 12460-5: 2015, *Wood-based Panels – Determination of Formaldehyde Release [Part 5: Extraction Method (Called the Perforator Method)]*. This British Version of the European standard describes an extraction method, known as the perforator method, for determining the formaldehyde content of unlaminated and uncoated wood-based panels.

(d) Copies of JIS A 1460: 2015, *Determination of the Emission of Formaldehyde from Building Boards – Desiccator Method, English Version*, may be obtained from Japanese Industrial Standards, 1-24, Akasaka 4, Minatoku, Tokyo 107-8440, Japan, or by

calling +81-3-3583-8000, or at <http://www.jsa.or.jp>. This method describes a method for testing formaldehyde emissions from construction boards by measuring the concentration of formaldehyde absorbed in distilled or deionized water from samples of a specified surface area placed in a glass desiccator for 24 hours.

(e) NIST material. Copies of these materials may be obtained from the National Institute of Standards and Technology (NIST) by calling (800) 553-6847 or from the U.S. Government Printing Office (GPO). To purchase a NIST publication you must have the order number. Order numbers may be obtained from the Public Inquiries Unit at (301) 975-NIST. Mailing address: Public Inquiries Unit, NIST, 100 Bureau Dr., Stop 1070, Gaithersburg, MD 20899-1070. If you have a GPO stock number, you can purchase printed copies of NIST publications from GPO. GPO orders may be mailed to: U.S. Government Printing Office, P.O. Box 979050, St. Louis, MO 63197-9000, placed by telephone at (866) 512-1800 (DC Area only: (202) 512-1800), or faxed to (202) 512-2104. Additional information is available online at: <http://www.nist.gov>.

1. PS 1-09, *Structural Plywood*. This standard describes the principal types and grades of structural plywood, covering the wood species, veneer grading, adhesive bonds, panel construction and workmanship, dimensions and tolerances, marking, moisture content and packaging of structural plywood intended for construction and industrial uses. Test methods to determine compliance and a glossary of trade terms and definitions are included, as is a quality certification program involving inspection, sampling, and testing of products identified as complying with this standard by qualified testing agencies.

2. PS 2-10, *Performance Standard for Wood-Based Structural-Use Panels*. This standard covers performance requirements, adhesive bond performance, panel construction and workmanship, dimensions and tolerances, marking, and moisture content of structural-use panels, such as plywood, waferboard, oriented strand board, structural particle board, and composite panels. The standard includes test methods, a glossary of trade terms and definitions, and a quality certification program involving inspection, sampling, and testing of products for qualification under the standard.

*K. Executive Order 12898: Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations.*

EPA has determined that the human health or environmental risk addressed by this action will not have potential disproportionately high and adverse human health or environmental effects on minority, low-income or indigenous populations, as specified in Executive Order 12898. As addressed in Unit II.A., this action would not materially alter the final rule as published, and will update existing voluntary consensus standards incorporated by reference in the final rule and provide an amendment to the testing requirements at § 770.20.

*L. Congressional Review Act (CRA)*

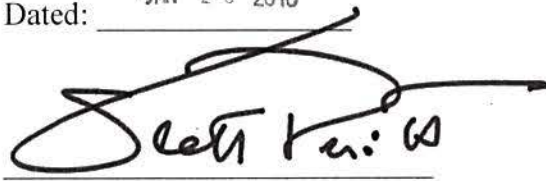
This action is subject to the CRA, and EPA will submit a rule report to each House of the Congress and to the Comptroller General of the United States. This action is not a “major rule” as defined by 5 U.S.C. § 804(2). Section 808 of the CRA allows the issuing agency to make a rule effective sooner than otherwise provided by CRA if the agency makes a good cause finding that notice and public procedure is impracticable, unnecessary, or contrary to the public interest. As required by 5 U.S.C. § 808(2), this

determination is supported by a brief statement in Unit III.

**List of Subjects in 40 CFR Part 770**

Environmental protection, Formaldehyde, Incorporation by reference, Reporting and recordkeeping requirements, Third-party certification, Toxic substances, Wood

Dated: JAN 26 2018

A handwritten signature in black ink, appearing to read "E. Scott Pruitt", is written over a horizontal line. The signature is stylized with a large loop at the beginning and a long horizontal stroke extending to the right.

E. Scott Pruitt, *Administrator*.

For the reasons set out in the preamble, title 40, chapter I, of the Code of Federal Regulations is amended as follows:

**PART 770—FORMALDEHYDE STANDARDS FOR COMPOSITE WOOD PRODUCTS**

1. The authority citation for part 770 continues to read as follows:

**Authority:** 15 U.S.C. 2697(d).

2. In § 770.1, paragraphs (c)(3), (4), (5), (7), and (8) are revised to read as follows:

**§ 770.1 Scope and applicability.**

\* \* \* \* \*

(c) \* \* \*

(3) Structural plywood, as specified in PS 1-09, Structural Plywood (incorporated by reference, see § 770.99).

(4) Structural panels, as specified in PS 2-10, Performance Standard for Wood-Based Structural-Use Panels (incorporated by reference, see § 770.99).

(5) Structural composite lumber, as specified in ASTM D5456-14b, Standard Specification for Evaluation of Structural Composite Lumber Products (incorporated by reference, see § 770.99).

\* \* \* \* \*

(7) Glued laminated lumber, as specified in ANSI A190.1-2017, Standard for Wood Products—Structural Glued Laminated Timber (incorporated by reference, see § 770.99).

(8) Prefabricated wood I-joists, as specified in ASTM D5055-16, Standard Specification for Establishing and Monitoring Structural Capacities of Prefabricated Wood I-Joists (incorporated by reference, see § 770.99).

\* \* \* \* \*

3. In § 770.3:

a. In the terms “EPA TSCA Title VI Product Accreditation Body or EPA TSCA Title VI Product AB” and “TPC laboratory”, remove “1998(E)” and add in its place “2012(E)”; and

b. Revise the terms “Hardboard,” “Hardwood plywood,” “Medium-density fiberboard,” “Particleboard,” and “Quality control limit”.

The revisions read as follows:

**§ 770.3 Definitions.**

\* \* \* \* \*

*Hardboard* means a composite panel composed of cellulosic fibers, consolidated under heat and pressure in a hot press by: A wet process; or a dry process that uses a phenolic resin, or a resin system in which there is no formaldehyde as part of the resin cross-linking structure; or a wet formed/dry pressed process; and that is commonly or commercially known, or sold, as hardboard, including any product conforming to one of the following ANSI standards: Basic Hardboard (ANSI A135.4-2012) (incorporated by reference, see § 770.99), Prefinished Hardboard Paneling (ANSI A135.5-2012) (incorporated by reference, see § 770.99), Engineered Wood Siding (ANSI A135.6-2012) (incorporated by reference, see § 770.99), or Engineered Wood Trim (ANSI A135.7-2012) (incorporated by reference, see § 770.99). There is a rebuttable presumption that



products emitting more than 0.06 ppm formaldehyde as measured by ASTM E1333-14 (incorporated by reference, see § 770.99) or ASTM D6007-14 (incorporated by reference, see § 770.99) are not hardboard.

*Hardwood plywood* means a hardwood or decorative panel that is intended for interior use and composed of (as determined under ANSI/HPVA HP-1-2016 (incorporated by reference, see § 770.99)) an assembly of layers or plies of veneer, joined by an adhesive with a lumber core, a particleboard core, a medium-density fiberboard core, a hardboard core, a veneer core, or any other special core or special back material. Hardwood plywood does not include military-specified plywood, curved plywood, or any plywood specified in PS 1-09, Structural Plywood (incorporated by reference, see § 770.99), or PS 2-10, Performance Standard for Wood-Based Structural-Use Panels (incorporated by reference, see § 770.99). In addition, hardwood plywood includes laminated products except as provided at § 770.4.

\* \* \* \* \*

*Medium-density fiberboard* means a panel composed of cellulosic fibers made by dry forming and pressing a resinated fiber mat (as determined under ANSI A208.2-2016 (incorporated by reference, see § 770.99)).

\* \* \* \* \*

*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 ANSI A208.1-2016 (incorporated by reference, see § 770.99)). Particleboard does not include any product specified in PS 2-10 (incorporated by reference, see § 770.99).

\* \* \* \* \*

*Quality control limit* or *QCL* means the value from the quality control method test that is the correlative equivalent to the applicable emission standard based on the ASTM E1333-14 method (incorporated by reference, see § 770.99) or, upon showing equivalence in accordance with § 770.20(d), the ASTM D6007-14 method (incorporated by reference, see § 770.99).

\* \* \* \* \*

4. In § 770.7:

a. In paragraphs (a)(5)(i)(A) introductory text, (b)(1)(iv), (c)(1)(iii), (c)(2)(v), and (c)(4)(i)(F), remove “1998(E)” and add in its place “2012(E)”; and

b. Revise paragraphs (a)(5)(i)(D) and (F), (b)(5)(i) introductory text, (c)(1)(ii) and (v), (c)(2)(iv) and (viii), (c)(4)(i)(B), and (c)(4)(v)(C).

The revisions read as follows:

**§ 770.7 Third-party certification.**

(a) \* \* \*

(5) \* \* \*

(i) \* \* \*

(D) A review of the approach that the TPC laboratory will use for establishing correlation or equivalence between ASTM E1333-14 and ASTM D6007-14, if used, (incorporated by reference, see § 770.99) or allowable formaldehyde test methods listed under § 770.20.

\* \* \* \* \*

(F) A review of the accreditation credentials of the TPC laboratory, including a verification that the laboratory has been accredited to ISO/IEC 17025:2005(E) (incorporated by reference, see § 770.99) with a scope of accreditation to include this part—Formaldehyde Standards for Composite Wood Products and the formaldehyde test methods ASTM E1333-14 and ASTM D6007-14, if used, by an EPA TSCA Title VI Laboratory AB (incorporated by reference, see § 770.99).

\* \* \* \* \*

(b) \* \* \*

(5) \* \* \*

(i) *Accreditation.* EPA TSCA Title VI Laboratory ABs must determine the accreditation eligibility, and accredit if appropriate, each TPC seeking recognition under the EPA TSCA Title VI Third-Party Certification Program by performing an assessment of each TPC. The assessment must include an on-site assessment by the EPA TSCA Title VI Laboratory AB to determine whether the laboratory meets the requirements of ISO/IEC 17025:2005(E) (incorporated by reference, see § 770.99), is in conformance with ISO/IEC 17020:2012(E) (incorporated by reference, see § 770.99) and the EPA TSCA Title VI TPC requirements under this part including the formaldehyde test methods ASTM E1333-14 and ASTM D6007-14 (incorporated by reference, see § 770.99), if used. In performing the on-site assessment, the EPA TSCA Title VI Laboratory AB must:

\* \* \* \* \*

(c) \* \* \*

(1) \* \* \*

(ii) Be, or have a contract with a laboratory that is, accredited by an EPA TSCA Title VI Laboratory AB to ISO/IEC 17025:2005(E) (incorporated by reference, see § 770.99) with a scope of accreditation to include this part—Formaldehyde Standards for Composite Wood Products—and the formaldehyde test methods ASTM E1333-14 and ASTM D6007-14, if used (incorporated by reference, see § 770.99);

\* \* \* \* \*

(v) Have demonstrated experience in performing or verifying formaldehyde emissions testing on composite wood products, including experience with test method ASTM E1333-14 and ASTM D6007-14, if used, (incorporated by reference, see § 770.99), and experience evaluating correlation between test methods. Applicant TPCs that have demonstrated experience with test method ASTM D6007-14 only, must be contracting testing with a laboratory that has a large chamber and demonstrate its experience with ASTM E1333-14.

\* \* \* \* \*

(2) \* \* \*

(iv) A copy of the TPC laboratory's certificate of accreditation from an EPA TSCA Title VI Laboratory AB to ISO/IEC 17025:2005(E) (incorporated by reference, see § 770.99) with a scope of accreditation to include this part—Formaldehyde Standards for Composite Wood Products—and the formaldehyde test methods ASTM E1333-14 and ASTM D6007-14 (incorporated by reference, see § 770.99), if used;

\* \* \* \* \*

(viii) A description of the TPC's experience with test method ASTM E1333-14 and/or ASTM D6007-14, if used, (incorporated by reference, see § 770.99), and

experience evaluating correlation between test methods. Applicant TPCs that have experience with test method ASTM D6007-14 only, must be contracting testing with a laboratory that has a large chamber and describe its experience with ASTM E1333-14; and

\* \* \* \* \*

(4) \* \* \*

(i) \* \* \*

(B) Verify each panel producer's quality control test results compared with test results from ASTM E1333-14 and ASTM D6007-14, if used, (incorporated by reference, see § 770.99) by having the TPC laboratory conduct quarterly tests and evaluate test method equivalence and correlation as required under § 770.20;

\* \* \* \* \*

(v) \* \* \*

(C) Notification of a panel producer exceeding its established QCL for more than two consecutive quality control tests within 72 hours of the time that the TPC becomes aware of the second exceedance. The notice must include the product type, dates of the quality control tests that exceeded the QCL, quality control test results, ASTM E1333-14 (incorporated by reference, see § 770.99) or ASTM D6007-14 method (incorporated by reference, see § 770.99) correlative equivalent values in accordance with § 770.20(d), the established QCL value(s) and the quality control method used.

\* \* \* \* \*

5. In § 770.10, paragraph (b) introductory text is revised to read as follows:

**§ 770.10 Formaldehyde emission standards.**

\* \* \* \* \*

(b) The emission standards are based on test method ASTM E1333-14

(incorporated by reference, see § 770.99), and are as follows:

\* \* \* \* \*

6. In § 770.15, paragraphs (c)(1)(v) and (c)(2)(iii) are revised to read as follows:

**§ 770.15 Composite wood product certification.**

\* \* \* \* \*

(c) \* \* \*

(1) \* \* \*

(v) At least five tests conducted under the supervision of an EPA TSCA Title VI TPC pursuant to test method ASTM E1333-14 or ASTM D6007-14 (incorporated by reference, see § 770.99). Test results obtained by ASTM D6007-14 must include a showing of equivalence in accordance with § 770.20(d)(1);

\* \* \* \* \*

(2) \* \* \*

(iii) At least five tests conducted under the supervision of an EPA TSCA Title VI TPC pursuant to test method ASTM E1333-14 or ASTM D6007-14 (incorporated by reference, see § 770.99). Test results obtained by ASTM D6007-14 must include a showing of equivalence in accordance with § 770.20(d)(1);

\* \* \* \* \*

7. In § 770.17, paragraph (a)(3) is revised to read as follows:

**§ 770.17 No-added formaldehyde-based resins.**

(a) \* \* \*

(3) At least one test conducted under the supervision of an EPA TSCA Title VI TPC pursuant to test method ASTM E1333-14 or ASTM D6007-14 (incorporated by reference, see § 770.99). Test results obtained by ASTM D6007-14 must include a showing of equivalence in accordance with § 770.20(d)(1); and

\* \* \* \* \*

8. In § 770.18, paragraph (a)(3) is revised to read as follows:

**§ 770.18 Ultra low-emitting formaldehyde resins.**

(a) \* \* \*

(3) At least two tests conducted under the supervision of an EPA TSCA Title VI TPC pursuant to test method ASTM E1333-14 or ASTM D6007-14 (incorporated by reference, see § 770.99). Test results obtained by ASTM D6007-14 must include a showing of equivalence in accordance with § 770.20(d)(1); and

\* \* \* \* \*

9. In § 770.20, paragraphs (b)(1)(i) through (iii), (vi), and (vii), (c)(1), (d) introductory text, (d)(1), (d)(2) introductory text, and (d)(2)(i) are revised to read as follows:

**§ 770.20 Testing requirements.**

\* \* \* \* \*

(b) \* \* \*

(1) \* \* \*

(i) ASTM D6007-14 (incorporated by reference, see § 770.99).

(ii) ASTM D5582-14 (incorporated by reference, see § 770.99).

(iii) BS EN ISO 12460-3:2015 E (Gas Analysis Method) (incorporated by reference, see § 770.99).

\* \* \* \* \*

(vi) BS EN ISO 12460-5:2015 E (Perforator Method) (incorporated by reference, see § 770.99).

(vii) JIS A 1460:2015(E) (24-hr Desiccator Method) (incorporated by reference, see § 770.99).

\* \* \* \* \*

(c) \* \* \*

(1) *Allowable methods.* Quarterly testing must be performed using ASTM E1333-14 (incorporated by reference, see § 770.99) or, with a showing of equivalence pursuant to paragraph (d) of this section, ASTM D6007-14 (incorporated by reference, see § 770.99).

\* \* \* \* \*

(d) *Equivalence or correlation.* Equivalence or correlation between ASTM E1333-14 (incorporated by reference, see § 770.99) and any other test method used for quarterly or quality control testing must be demonstrated by EPA TSCA Title VI TPCs or panel producers, respectively, at least once each year for each testing apparatus or whenever there is a significant change in equipment, procedure, or the qualifications of testing personnel. Once equivalence or correlation have been established for three consecutive years, equivalence or correlation must be demonstrated every two years or



whenever there is a significant change in equipment, procedure, or the qualifications of testing personnel.

(1) *Equivalence between ASTM E1333-14 and ASTM D6007-14 when used by the TPC for quarterly testing.* Equivalence must be demonstrated for at least five comparison sample sets, which compare the results of the two methods. Equivalence must be demonstrated for each small chamber used and for the ranges of emissions of composite wood products tested by the TPC.

(i) *Samples.* (A) For the ASTM E1333-14 method (incorporated by reference, see § 770.99), each comparison sample must consist of the result of testing panels, using the applicable loading ratios specified in the ASTM E1333-14 method (incorporated by reference, see § 770.99), from similar panels of the same product type tested by the ASTM D6007-14 method (incorporated by reference, see § 770.99).

(B) For the ASTM D6007-14 method (incorporated by reference, see § 770.99), each comparison sample shall consist of testing specimens representing portions of panels similar to the panels tested in the ASTM E1333-14 method (incorporated by reference, see § 770.99) and matched to their respective ASTM E1333-14 method (incorporated by reference, see § 770.99) comparison sample result. The ratio of air flow to sample surface area specified in ASTM D6007-14 (incorporated by reference, see § 770.99) must be used.

(C) The five comparison sample must consist of testing a minimum of five sample sets as measured by the ASTM E1333-14 method (incorporated by reference, see § 770.99).

(ii) *Average and standard deviation.* The arithmetic mean,  $\bar{x}$ , and standard deviation,  $S$ , of the difference of all comparison sets must be calculated as follows:

$$\bar{X} = \sum_{i=1}^n D_i / n \quad S = \sqrt{\sum_{i=1}^n (D_i - \bar{X})^2 / (n - 1)}$$

Where  $\bar{x}$  = arithmetic mean;  $S$  = standard deviation;  $n$  = number of sets;  $D_i$  = difference between the ASTM E1333-14 and ASTM D6007-14 method (incorporated by reference, see § 770.99) values for the  $i$  th set; and  $i$  ranges from 1 to  $n$ .

(iii) *Equivalence determination.* The ASTM D6007-14 method (incorporated by reference, see § 770.99) is considered equivalent to the ASTM E1333-14 method (incorporated by reference, see § 770.99) if the following condition is met:

$$|\bar{X}| + 0.88S \leq C$$

Where  $C$  is equal to 0.026.

(2) *Correlation between ASTM E1333-14 and any quality control test method.*

Correlation must be demonstrated by establishing an acceptable correlation coefficient (“ $r$ ” value).

(i) *Correlation.* The correlation must be based on a minimum sample size of five data pairs and a simple linear regression where the dependent variable (Y-axis) is the quality control test value and the independent variable (X-axis) is the ASTM E1333-14 (incorporated by reference, see § 770.99) test value or, upon a showing of equivalence in accordance with paragraph (d) of this section, the equivalent ASTM D6007-14

(incorporated by reference, see § 770.99) test value. Either composite wood products or formaldehyde emissions reference materials can be used to establish the correlation.

\* \* \* \* \*

10. In § 770.99, paragraphs (a) introductory text, (a)(5) through (8), (b)(1) through (5), (c)(1) and (2), (f)(1), and (g)(1) and (2) are revised to read as follows:

**§ 770.99 Incorporation by reference.**

\* \* \* \* \*

(a) *CPA, APA, and HPVA Materials.* Copies of these materials may be obtained from the specific publisher, as noted in this paragraph (a), or from the American National Standards Institute, 1899 L Street NW., 11th Floor, Washington, DC 20036, or by calling (202) 293-8020, or at <http://ansi.org/>. Note that ANSI A190.1-2017 is published by APA—the Engineered Wood Association. ANSI A135.4-2012, ANSI A135.5-2012, ANSI A135.6-2012, ANSI A135.7-2012, ANSI A208.1-2016 and ANSI A208.2-2016 are published by the Composite Panel Association; and ANSI/HPVA-HP-1-2016 is published by the Hardwood Plywood Veneer Association.

\* \* \* \* \*

(5) ANSI A190.1-2017, Standard for Wood Products—Structural Glued Laminated Timber, Approved January 24, 2017, IBR approved for § 770.1(c).

(6) ANSI A208.1-2016, Particleboard, Approved May 12, 2016, IBR approved for § 770.3.

(7) ANSI A208.2-2016, Medium Density Fiberboard (MDF) for Interior Applications, Approved May 12, 2016, IBR approved for § 770.3.

(8) ANSI/HPVA HP-1-2016, American National Standard for Hardwood and Decorative Plywood, Approved January 12, 2016, IBR approved for § 770.3.

(b) \* \* \*

(1) ASTM D5055-16, Standard Specification for Establishing and Monitoring Structural Capacities of Prefabricated Wood I-Joists, Approved June 1, 2016, IBR approved for § 770.1(c).

(2) ASTM D5456-14b, Standard Specification for Evaluation of Structural Composite Lumber Products, Approved October 1, 2014, IBR approved for § 770.1(c).

(3) ASTM D5582-14, Standard Test Method for Determining Formaldehyde Levels from Wood Products Using a Desiccator, Approved-August 1, 2014, IBR approved for § 770.20(b).

(4) ASTM D6007-14, Standard Test Method for Determining Formaldehyde Concentrations in Air from Wood Products Using a Small-Scale Chamber, Approved October 1, 2014, IBR approved for §§ 770.3, 770.7(a) through (c), 770.15(c), 770.17(a), 770.18(a), and 770.20(b) through (d).

(5) ASTM E1333-14, Standard Test Method for Determining Formaldehyde Concentrations in Air and Emission Rates from Wood Products Using a Large Chamber, Approved October 1, 2014, IBR approved for §§ 770.3, 770.7(a) through (c), 770.10(b), 770.15(c), 770.17(a), 770.18(a), and 770.20(c) and (d).

(c) \* \* \*

(1) BS EN ISO 12460-3:2015 E, Wood-based panels.—Determination of formaldehyde release—Part 3: Gas analysis method, November 2015, IBR approved for § 770.20(b).

(2) BS EN ISO 12460-5:2015 E, Wood based panels.—Determination of formaldehyde release—Part 5: Extraction method (called the perforator method), December 2015, IBR approved for § 770.20(b).

\* \* \* \* \*

(f) \* \* \*

(1) JIS A 1460:2015(E), Determination of the emission of formaldehyde from building boards—Desiccator method, First English edition, published 2015-10, IBR approved for § 770.20(b).

\* \* \* \* \*

(g) \* \* \*

(1) PS 1-09, Structural Plywood, May 2010, IBR approved for §§ 770.1(c) and 770.3.

(2) PS 2-10, Performance Standard for Wood-Based Structural-Use Panels, June 2011, IBR approved for §§ 770.1(c) and 770.3.