



6560-50-P

## **ENVIRONMENTAL PROTECTION AGENCY**

### **40 CFR Part 63**

**[EPA-HQ-OAR-2010-1042; FRL-9972-44-OAR]**

**RIN 2060-AT13**

### **National Emission Standards for Hazardous Air Pollutants for Wool Fiberglass Manufacturing; Rotary Spin Lines Technology Review and Revision of Flame Attenuation Lines Standards**

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

**ACTION:** Final rule.

**SUMMARY:** This action completes the final residual risk and technology reviews (RTR) that the Environmental Protection Agency (EPA) conducted for the Wool Fiberglass Manufacturing source category regulated under the national emission standards for hazardous air pollutants (NESHAP). In this action, the EPA is readopting the existing emission limits for formaldehyde, establishing emission limits for methanol, and a work practice standard for phenol emissions from bonded rotary spin (RS) lines at wool fiberglass manufacturing facilities. In addition, the EPA is revising the emission standards promulgated on July 29, 2015, for flame attenuation (FA) lines at wool fiberglass manufacturing facilities by creating three subcategories of FA lines and establishing emission limits for formaldehyde and methanol emissions, and either emission limits or work practice standards for phenol emissions for each subcategory of FA lines.

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

**ADDRESSES:** The EPA has established a docket for this action under Docket ID No. EPA-HQ-OAR-2010-1042. All documents in the docket are listed on the <http://www.regulations.gov> Web

site. Although listed in the index, some information is not publicly available, *e.g.*, confidential business information (CBI) or other information whose disclosure is restricted by statute. Certain other material, such as copyrighted material, is not placed on the Internet and will be publicly available only in hard copy form. Publicly available docket materials are available either electronically through <http://www.regulations.gov>, or in hard copy at the EPA Docket Center, EPA WJC West Building, Room Number 3334, 1301 Constitution Ave., NW, Washington, DC. The Public Reading Room hours of operation are 8:30 a.m. to 4:30 p.m. Eastern Standard Time (EST), Monday through Friday. The telephone number for the Public Reading Room is (202) 566-1744, and the telephone number for the Docket Center is (202) 566-1742.

**FOR FURTHER INFORMATION CONTACT:** For questions about this final action, contact Mr. Brian Storey, Sector Policies and Programs Division (D243-04), Office of Air Quality Planning and Standards, U.S. Environmental Protection Agency, Research Triangle Park, North Carolina, 27711; telephone number: (919) 541-1103; fax number: (919) 541-4991; and email address: [storey.brian@epa.gov](mailto:storey.brian@epa.gov). For information about the applicability of the NESHAP to a particular entity, contact Ms. Sara Ayres, Office of Enforcement and Compliance Assurance, U.S. Environmental Protection Agency, EPA WJC South Building, 1200 Pennsylvania Ave., NW, Washington, DC 20460; telephone number: (312) 353-6266; and email address: [ayres.sara@epa.gov](mailto:ayres.sara@epa.gov).

**SUPPLEMENTARY INFORMATION:**

*Preamble acronyms and abbreviations.* We use multiple acronyms and terms in this preamble. While this list may not be exhaustive, to ease the reading of this preamble and for reference purposes, the EPA defines the following terms and acronyms here:

BDL	below the detection limit
CAA	Clean Air Act

CBI	confidential business information
CD-ROM	Compact Disc Read-Only Memory
CDX	Central Data Exchange
CFR	Code of Federal Regulations
EPA	Environmental Protection Agency
ERT	Electronic Reporting Tool
FA	flame attenuation
FR	Federal Register
HAP	hazardous air pollutants(s)
ICR	information collection request
lbs/ton	pounds per ton
MACT	maximum achievable control technology
NESHAP	national emission standards for hazardous air pollutants
NTTAA	National Technology Transfer and Advancement Act
OMB	Office of Management and Budget
PF	phenol-formaldehyde
ppmv	parts per million by volume
PRA	Paperwork Reduction Act
RFA	Regulatory Flexibility Act
RS	rotary spin
RTR	Risk and Technology Review
tpy	tons per year
TTN	Technology Transfer Network
UMRA	Unfunded Mandates Reform Act
UPL	upper prediction limit

*Background information.* On August 29, 2017, the EPA proposed revisions to the Wool Fiberglass Manufacturing NESHAP based on our technology review of the source category's bonded RS lines. In addition, the proposal included certain revisions to the July 29, 2015, emission standards for the bonded FA lines. In this action, we are finalizing decisions and revisions for the rule. We summarize some of the more significant comments we timely received regarding the proposed rule and provide our responses in this preamble. A summary of all other public comments on the proposal and the EPA's responses to those comments is available in the document titled, *National Emissions Standards for Hazardous Air Pollutants for Wool Fiberglass Manufacturing (40 CFR part 63, subpart NNN)—Technology Review, Final*

*Amendments: Response to Public Comments on August 29, 2017 Proposal*, which is available in the docket for this action (Docket ID No. EPA-HQ-OAR-2010-1042). A “track changes” version of the regulatory language that incorporates the changes in this action is also available in the docket.

*Organization of this document.* The information in this preamble is organized as follows:

I. General Information

- A. Does this action apply to me?
- B. Where can I get a copy of this document and other related information?
- C. Judicial Review and Administrative Reconsideration

II. Background

- A. What is the statutory authority for this action?
- B. What is the Wool Fiberglass Manufacturing source category and how does the NESHAP regulate HAP emissions from the source category?
- C. What changes did we propose for the Wool Fiberglass Manufacturing source category in our August 29, 2017, notice?

III. What is included in this final rule?

- A. What are the final rule amendments for formaldehyde emissions from RS lines based on the technology review for the Wool Fiberglass Manufacturing source category?
- B. What are the final rule amendments pursuant to CAA sections 112(d)(2) and (3) for RS lines in the Wool Fiberglass Manufacturing source category?
- C. What are the final rule amendments pursuant to CAA section 112(h) for RS lines in the Wool Fiberglass Manufacturing source category?
- D. What other changes have been made to the NESHAP?
- E. What are the effective and compliance dates of the standards?
- F. What are the requirements for submission of performance test data to the EPA?

IV. What is the rationale for our final decisions and amendments for the Wool Fiberglass Manufacturing source category?

- A. Technology Review for the Wool Fiberglass Manufacturing Source Category
- B. Amendments Pursuant to CAA Sections 112(d)(2) and (3) for the Wool Fiberglass Manufacturing Source Category
- C. Amendments Pursuant to CAA Section 112(h) for the Wool Fiberglass Manufacturing Source Category
- D. Amendments for FA Lines in the Wool Fiberglass Manufacturing Source Category
- E. Other Amendments to the Wool Fiberglass Manufacturing NESHAP

V. Summary of Cost, Environmental, and Economic Impacts and Additional Analyses Conducted

- A. What are the affected facilities?
- B. What are the air quality impacts?
- C. What are the cost impacts?
- D. What are the economic impacts?
- E. What are the benefits?
- F. What analysis of environmental justice did we conduct?
- G. What analysis of children’s environmental health did we conduct?

VI. Statutory and Executive Order Reviews

- A. Executive Orders 12866: Regulatory Planning and Review and Executive Order 13563: Improving Regulation and Regulatory Review
- B. Executive Order 13771: Reducing Regulations and Controlling Regulatory Costs
- C. Paperwork Reduction Act (PRA)
- D. Regulatory Flexibility Act (RFA)
- E. Unfunded Mandates Reform Act (UMRA)
- F. Executive Order 13132: Federalism
- G. Executive Order 13175: Consultation and Coordination with Indian Tribal Governments
- H. Executive Order 13045: Protection of Children From Environmental Health Risks and Safety Risks
- I. Executive Order 13211: Actions Concerning Regulations That Significantly Affect Energy Supply, Distribution, or Use
- J. National Technology Transfer and Advancement Act (NTTAA)
- K. Executive Order 12898: Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations
- L. Congressional Review Act (CRA)

**I. General Information**

A. *Does this action apply to me?*

*Regulated entities.* Table 1 includes the categories and entities potentially regulated by this action.

**Table 1. NESHAP and Industrial Source Categories Affected By This Final Action**

NESHAP and Source Category	NAICS <sup>1</sup> Code
----------------------------	-------------------------

Wool Fiberglass Manufacturing	327993
-------------------------------	--------

North American Industry Classification System.

Table 1 of this preamble is not intended to be exhaustive, but rather to provide a guide for readers regarding entities likely to be affected by the final action for the source category listed. To determine whether your facility is affected, you should examine the applicability criteria in the appropriate NESHAP. If you have any questions regarding the applicability of any aspect of this NESHAP, please contact the appropriate person listed in the preceding **FOR FURTHER INFORMATION CONTACT** section of this preamble.

*B. Where can I get a copy of this document and other related information?*

In addition to being available in the docket, an electronic copy of this final action will also be available on the Internet. Following signature by the EPA Administrator, the EPA will post a copy of this final action at: <https://www.epa.gov/stationary-sources-air-pollution/wool-fiberglass-manufacturing-national-emissions-standards>. Following publication in the **Federal Register**, the EPA will post the **Federal Register** version and key technical documents at this same Web site.

Additional information is available on the RTR Web site at <http://www.epa.gov/ttn/atw/rrisk/rtrpg.html>. This information includes an overview of the RTR program, links to project Web sites for the RTR source categories, and detailed emissions and other data we used as inputs to the risk assessments.

*C. Judicial Review and Administrative Reconsideration*

Under Clean Air Act (CAA) section 307(b)(1), judicial review of this final action is available only by filing a petition for review in the United States Court of Appeals for the District of Columbia Circuit by **[insert date 60 days after date of publication in the Federal**

**Register**]. Under CAA section 307(b)(2), the requirements established by this final rule may not be challenged separately in any civil or criminal proceedings brought by the EPA to enforce the requirements.

Section 307(d)(7)(B) of the CAA further provides that only an objection to a rule or procedure which was raised with reasonable specificity during the period for public comment (including any public hearing) may be raised during judicial review. This section also provides a mechanism for the EPA to reconsider the rule if the person raising an objection can demonstrate to the Administrator that it was impracticable to raise such objection within the period for public comment or if the grounds for such objection arose after the period for public comment (but within the time specified for judicial review) and if such objection is of central relevance to the outcome of the rule. Any person seeking to make such a demonstration should submit a Petition for Reconsideration to the Office of the Administrator, U.S. EPA, Room 3000, EPA WJC South Building, 1200 Pennsylvania Ave., NW, Washington, DC 20460, with a copy to both the person(s) listed in the preceding **FOR FURTHER INFORMATION CONTACT** section, and the Associate General Counsel for the Air and Radiation Law Office, Office of General Counsel (Mail Code 2344A), U.S. EPA, 1200 Pennsylvania Ave., NW, Washington, DC 20460.

## **II. Background**

### *A. What is the statutory authority for this action?*

Section 112 of the CAA establishes a two-stage regulatory process to address emissions of hazardous air pollutants (HAP) from stationary sources. In the first stage, we must identify categories of sources emitting one or more of the HAP listed in CAA section 112(b) and then promulgate technology-based NESHAP for those sources. “Major sources” are those that emit, or have the potential to emit, any single HAP at a rate of 10 tons per year (tpy) or more, or 25 tpy

or more of any combination of HAP. For major sources, these standards are commonly referred to as maximum achievable control technology (MACT) standards and must reflect the maximum degree of emission reductions of HAP achievable (after considering cost, energy requirements, and non-air quality health and environmental impacts). In developing MACT standards, CAA section 112(d)(2) directs the EPA to consider the application of measures, processes, methods, systems, or techniques, including, but not limited to those that reduce the volume of or eliminate HAP emissions through process changes, substitution of materials, or other modifications; enclose systems or processes to eliminate emissions; collect, capture, or treat HAP when released from a process, stack, storage, or fugitive emissions point; are design, equipment, work practice, or operational standards; or any combination of the above.

For these MACT standards, the statute specifies certain minimum stringency requirements, which are referred to as MACT floor requirements, and which may not be based on cost considerations. See CAA section 112(d)(3). For new sources, the MACT floor cannot be less stringent than the emission control achieved in practice by the best-controlled similar source. The MACT standards for existing sources can be less stringent than floors for new sources, but they cannot be less stringent than the average emission limitation achieved by the best-performing 12 percent of existing sources in the category or subcategory (or the best-performing five sources for categories or subcategories with fewer than 30 sources). In developing MACT standards, we must also consider control options that are more stringent than the floor under CAA section 112(d)(2). We may establish standards more stringent than the floor, based on the consideration of the cost of achieving the emissions reductions, any non-air quality health and environmental impacts, and energy requirements.

In the second stage of the regulatory process, the CAA requires the EPA to undertake two different analyses, which we refer to as the technology review and the residual risk review. Under the technology review, we must review the technology-based standards and revise them “as necessary (taking into account developments in practices, processes, and control technologies)” no less frequently than every 8 years, pursuant to CAA section 112(d)(6). In conducting this review, the EPA is not required to recalculate the MACT floor. *Natural Resources Defense Council (NRDC) v. EPA*, 529 F.3d 1077, 1084 (D.C. Cir. 2008). *Association of Battery Recyclers, Inc. v. EPA*, 716 F.3d 667 (D.C. Cir. 2013). Under the residual risk review, we must evaluate the risk to public health remaining after application of the technology-based standards and revise the standards, if necessary, to provide an ample margin of safety to protect public health or to prevent, taking into consideration costs, energy, safety, and other relevant factors, an adverse environmental effect. The residual risk review is required within 8 years after promulgation of the technology-based standards, pursuant to CAA section 112(f). In conducting the residual risk review, if the EPA determines that the current standards provide an ample margin of safety to protect public health, it is not necessary to revise the MACT standards pursuant to CAA section 112(f).<sup>1</sup> Additionally, CAA section 112(h) allows the agency to adopt a work practice standard in lieu of a numerical emission standard only if it is “not feasible in the judgment of the Administrator to prescribe or enforce an emission standard for control of a hazardous air pollutant.” This phrase is defined as applying where “the Administrator determines that the application of measurement methodology to a particular class of sources is not practicable due to technological and economic limitations.” CAA section 112(h)(1) and (2).

---

<sup>1</sup> The U.S. Court of Appeals for the District of Columbia Circuit has affirmed this approach of implementing CAA section 112(f)(2)(A): *NRDC v. EPA*, 529 F.3d 1077, 1083 (D.C. Cir. 2008) (“If EPA determines that the existing technology-based standards provide an ‘ample margin of safety,’ then the Agency is free to readopt those standards during the residual risk rulemaking.”).

In this action, the EPA is finalizing the technology review for RS lines in accordance with section 112(d)(6) of the CAA. In addition, the EPA is amending certain emission standards promulgated on July 29, 2015, for FA lines at wool fiberglass manufacturing facilities.

*B. What is the Wool Fiberglass Manufacturing source category and how does the NESHAP regulate HAP emissions from the source category?*

The EPA promulgated the Wool Fiberglass Manufacturing NESHAP on June 14, 1999 (62 FR 31695). The standards are codified at 40 CFR part 63, subpart NNN. The Wool Fiberglass Manufacturing source category consists of facilities that produce wool fiberglass from sand, feldspar, sodium sulfate, anhydrous borax, boric acid, or any other materials. This source category currently comprises three wool fiberglass manufacturing facilities operating bonded RS lines, and two facilities operating bonded FA lines. The EPA is not currently aware of any planned or potential new or reconstructed bonded RS or FA lines.

On July 29, 2015, we published the final rule amendments to the Wool Fiberglass Manufacturing NESHAP resulting from our completion of certain aspects of the CAA section 112(f)(2) residual risk review and the CAA section 112(d)(6) technology review for that NESHAP RTR. 80 FR 45280. Specifically, the July 29, 2015, final rule:

- Established a chromium emission limit for gas-fired, glass-melting furnaces under CAA section 112(f)(2);
- Revised the particulate matter emission limit for gas-fired, glass-melting furnaces at major sources under CAA section 112(d)(6);
- Established work practice standards for hydrogen chloride and hydrogen fluoride emissions from glass-melting furnaces at wool fiberglass manufacturing facilities under CAA section 112(h);

- Eliminated the use of formaldehyde as a surrogate and established revised limits for formaldehyde and first-time limits for methanol and phenol emitted from FA lines under CAA sections 112(d)(2) and (d)(3);
- Eliminated FA line subcategories;
- Removed the exemption for startup and shutdown periods and established work practice standards that apply during startup and shutdown periods; and
- Established chromium emission limits for both new and existing gas-fired, glass-melting furnaces at area sources in the Wool Fiberglass Manufacturing source category under CAA section 112(d)(5).

In the July 2015 rule, we did not finalize proposed emission limits for formaldehyde, methanol, and phenol emissions from forming, cooling, and collection processes on bonded RS lines under CAA sections 112(d)(2) and (3). We explained that this decision was based on comments we received on our various proposals indicating that the proposed limits likely relied on incorrect data. We explained that we had issued an Information Collection Request (ICR) under CAA section 114 for purposes of obtaining the requisite data. 80 FR 45293.

*C. What changes did we propose for the Wool Fiberglass Manufacturing source category in our August 29, 2017, notice?*

On August 29, 2017, the EPA published a proposed rule in the **Federal Register** for the Wool Fiberglass Manufacturing NESHAP, 40 CFR part 63, subpart NNN, that took into consideration the new data received in response to the ICR. We also explained that since our July 29, 2015, final rule, we had received new information and data from a facility that operates FA lines that cast doubts on information and data that the agency relied on in promulgating the July

2015 final rule emission limits for FA lines. In the August 29, 2017, **Federal Register**, we proposed the following:

- Readopting the formaldehyde emission limits for bonded RS lines that were in the original 1999 NESHAP under CAA section 112(d)(6);
- Establishing new emission limits for methanol from bonded RS lines under CAA section 112(d)(2) and (3);
- Establishing work practice standards for phenol from bonded RS lines under CAA section 112(h);
- Amending the incinerator operating limits to include cooling emissions from both RS and FA limits under CAA section 112(d)(2) and (3);
- Establishing new subcategories of FA lines under CAA section 112(d)(1), defined as: (1) Aerospace, Air Filtration, and Pipe Products; (2) Heating, Ventilation, and Air Conditioning (HVAC); and (3) Original Equipment Manufacturer (OEM);
- Establishing new emission limits for formaldehyde, methanol, and phenol from most of the newly proposed FA line subcategories under CAA section 112(d)(2) and (3); and
- Setting work practice standards for phenol from one newly proposed FA line subcategory under CAA section 112(h).

### **III. What is included in this final rule?**

This action finalizes the EPA's determinations, as proposed, pursuant to the CAA section 112(d)(6) review for the Wool Fiberglass Manufacturing source category and amends the Wool Fiberglass Manufacturing NESHAP based on those determinations. This action also finalizes, with minor revisions to our proposals, other changes to the NESHAP, including establishing first-time limits for methanol emissions from forming, cooling, and collection processes on new

and existing bonded RS lines at wool fiberglass manufacturing facilities under CAA sections 112(d)(2) and (3), and establishing work practices standards for phenol emissions from forming, cooling, and collection processes on new and existing bonded RS lines at wool fiberglass manufacturing facilities under CAA section 112(h).

Additionally, consistent with our proposal, this action finalizes our decision to create three subcategories of FA lines at wool fiberglass manufacturing facilities based on the type of product that is manufactured. This action also finalizes, as proposed, emission limits for formaldehyde, methanol, and phenol emissions under CAA section 112(d)(2) and (3) for two of these subcategories, and finalizes emission limits for formaldehyde and methanol under CAA section 112(d)(2) and (3), and work practices standards for phenol emissions under CAA section 112(h), for the third subcategory.

*A. What are the final rule amendments for formaldehyde emissions from RS lines based on the technology review for the Wool Fiberglass Manufacturing source category?*

We are readopting the current emissions standards for formaldehyde from forming, cooling, and collection processes on existing, new, and reconstructed bonded RS lines at wool fiberglass manufacturing facilities under CAA section 112(d)(6) as the result of our technology review.

*B. What are the final rule amendments pursuant to CAA sections 112(d)(2) and (3) for RS lines in the Wool Fiberglass Manufacturing source category?*

Under CAA sections 112(d)(2) and (d)(3), we are establishing emission limits for methanol from forming, cooling, and collection processes on existing, new, and reconstructed bonded RS lines at wool fiberglass manufacturing facilities.

*C. What are the final rule amendments pursuant to CAA section 112(h) for RS lines in the Wool Fiberglass Manufacturing source category?*

We are establishing work practice standards for phenol emissions from combined fiber/collection, curing, and cooling processes on existing, new, and reconstructed bonded RS lines at wool fiberglass manufacturing facilities under CAA section 112(h).

*D. What other changes have been made to the NESHAP?*

Other changes to the NESHAP include:

- Finalizing the proposed subcategories for FA lines and their associated emissions standards for existing, new, and reconstructed bonded FA lines at wool fiberglass manufacturing facilities;
- Adding an annual operating requirement for designating the appropriate subcategory for FA lines;
- Clarifying that the Aerospace subcategory includes pipe products;
- Establishing the compliance period for both RS and FA lines; and
- Revising the recordkeeping requirement for free-formaldehyde and free-phenol content of binders.

*E. What are the effective and compliance dates of the standards?*

The revisions to the MACT standards being promulgated in this action are effective on **[insert date of publication in the Federal Register]**. The compliance date for existing RS and FA manufacturing lines is December 26, 2020. New sources must comply with the all of the standards immediately upon the effective date of the standard, **[insert date of publication in the Federal Register]**, or upon startup, whichever is later.

CAA section 112(i)(3) requires that existing sources must comply as expeditiously as practicable, but no later than 3 years after promulgation of standards under CAA section 112(d). (“Section 112(i)(3)'s three-year maximum compliance period applies generally to any emissions standard . . . promulgated under CAA [section 112].” *Ass’n of Battery Recyclers v. EPA*, 716 F.3d 667, 672 (D.C. Cir. 2013)). Additionally, we may not reset compliance deadlines for revisions that are unaccompanied by changes to a MACT standard. *NRDC v. EPA*, 489 F.3d 1364, 1374 (D.C. Cir. 2007) (EPA may not revise compliance deadlines “for compliance with Section 112 standards anytime it adjusts reporting terms.”). This final action reflects our conclusion that sources will need the 3-year period to comply with the various final rule requirements, which are not just reporting requirements. For instance, with regard to FA lines, subcategories have been newly created, and numerical emission limits for formaldehyde and methanol emissions are being promulgated. Thus, owners or operators of affected sources will need to conduct performance tests in order to demonstrate initial compliance with these final standards. Additionally, as explained at proposal, the work practice standards for phenol emissions from both RS and FA lines call for vendor specifications, which will likely require vendor bids and selections, and the likely institution of new practices to address the final recordkeeping requirements.

*F. What are the requirements for submission of performance test data to the EPA?*

As we proposed, the EPA is taking steps to increase the ease and efficiency of data submittal and data accessibility. Specifically, the EPA is finalizing the requirement for owners or operators of wool fiberglass manufacturing facilities to submit electronic copies of certain required performance test reports.

Data will be collected by direct computer-to-computer electronic transfer using EPA-provided software. This EPA-provided software is an electronic performance test report tool called the Electronic Reporting Tool (ERT). The ERT will generate an electronic report package which will be submitted to the Compliance and Emissions Data Reporting Interface (CEDRI) and then archived to the EPA's Central Data Exchange (CDX). A description of the ERT and instructions for using ERT can be found at <http://www3.epa.gov/ttn/chief/ert/index.html>. CEDRI can be accessed through the CDX Web site (<http://www.epa.gov/cdx>). Once submitted, a performance test report will be available to the public through the EPA WebFIRE database (<https://cfpub.epa.gov/webfire/>).

The requirement to submit performance test data electronically to the EPA does not create any additional performance testing and will apply only to those performance tests conducted using test methods that are supported by the ERT. A listing of the pollutants and test methods supported by the ERT is available at the ERT Web site. With electronic reporting, industry will save time in the performance test submittal process. Additionally, this rulemaking benefits industry by reducing recordkeeping costs as the performance test reports that are submitted to the EPA using CEDRI are no longer required to be kept in hard copy.

State, local, and tribal air agencies may benefit from more streamlined and accurate review of performance test data that will become available to the public through WebFIRE. Having such data publicly available enhances transparency and accountability. For a more thorough discussion of electronic reporting of performance tests using direct computer-to-computer electronic transfer and using EPA-provided software, see the discussion in the preamble of the proposal.

In summary, in addition to supporting regulation development, control strategy development, and other air pollution control activities, having an electronic database populated with performance test data will save industry, state, local, and tribal air agencies, and the EPA significant time, money, and effort.

**IV. What is the rationale for our final decisions and amendments for the Wool Fiberglass Manufacturing source category?**

For each issue, this section provides a description of what we proposed and what we are finalizing for the issue, the EPA's rationale for the final decisions and amendments, and a summary of key comments and responses. For all comments not discussed in this preamble, comment summaries and the EPA's responses are contained in the comment summary and response document available in the docket for this action.

*A. Technology Review for the Wool Fiberglass Manufacturing Source Category*

1. What did we propose pursuant to CAA section 112(d)(6) for the Wool Fiberglass Manufacturing source category?

In the August 29, 2017, action (82 FR 40970), we proposed readopting the current NESHAP emission limits for formaldehyde from forming, cooling, and collection processes on existing, new, and reconstructed bonded RS lines at wool fiberglass manufacturing facilities under CAA section 112(d)(6).

2. How did the technology review change for the Wool Fiberglass Manufacturing source category?

We are not changing our technology review findings from the August 29, 2017, proposal.

3. What key comments did we receive on the technology review, and what are our responses?

One commenter disagreed with our proposal to readopt the current formaldehyde emission limits for existing and new sources. The commenter stated that the EPA's refusal to increase protections against formaldehyde emissions from RS lines is unlawful and irrational and is not consistent with 42 U.S.C. 7412(d)(6), which is intended to drive pollution reductions. The commenter said that the EPA's proposal to retain the current NESHAP emission limits for formaldehyde from RS lines, even though the EPA identified developments in practices, processes, and control technologies under the technology review, does not meet the requirements of 42 U.S.C. 7412(d)(6) which requires the EPA to "account" for such developments consistent with the CAA. The commenter asserted that failing to strengthen the emission limits will allow sources to emit at higher levels without consequence, and will remove a strong incentive for the industry to complete the transition to non-phenol formaldehyde (PF) binders.

We disagree with the commenter. As explained in the August 29, 2017, action (82 FR 40975), we considered mandating the use of non-PF binders for lines currently using PF binders, and/or mandating the use of non-PF binders for all bonded lines as part of the required CAA section 112(d)(6) technology review. We did not propose this option, however, and, instead, we proposed to readopt the current limits because the source category has already achieved approximately 95-percent reduction in formaldehyde emissions due to the replacement of the PF binders with non-PF binders. We explained that this industry trend would likely continue given industry indications that non-PF binders are less expensive than PF binders and, as also explained at proposal, that cost considerations will move the industry in the direction of complete elimination of PF binders in the absence of regulation. However, as also noted at proposal, the remaining sources that continue to operate RS lines using PF binders manufacture products for customers with specifications that preclude the use of any currently available non-

PF binders and, therefore, if PF binders were banned, these facilities would likely no longer be able to produce these products. Furthermore, we noted that mandating non-PF binders would likely be viewed as penalizing sources that continued to utilize PF binders. Therefore, we continue to conclude that it would be inappropriate to ban PF binders at this time. We also explained that our review of the 2015 ICR indicated that all bonded RS lines are equipped with air pollution control devices for formaldehyde emissions as compared to the time of promulgation of the 1999 MACT standards. Specifically, we found that formaldehyde emissions were significantly below the 1999 MACT and we attributed these reductions to both control technologies in use and the phase out of PF binders. We expressed our belief that sources would maintain these control technologies and, thus, that the lower emissions remain somewhat assured, even without our lowering of the existing MACT standards. We continue to believe that sources will maintain control technologies that address formaldehyde emissions from the various processes on RS lines post promulgation of standards that they are already meeting, partly because most (or potentially all) of these sources would likely not be able to comply with the current formaldehyde limits or the new methanol limits without these controls. We also note that because we were confident of the continued use of existing control technologies that achieve formaldehyde emissions reductions that are well below the existing MACT, we also did not propose requiring initial compliance demonstration, but rather proposed to allow sources to use test reports submitted in response to the 2015 ICR as a means of demonstrating initial compliance with the proposed emission limits, when finalized (82 FR 40976). This final rule contains this requirement, as proposed. Additionally, these existing MACT limits are reflected in operating permits for these sources and, thus, remain enforceable until otherwise revised.

4. What is the rationale for our final approach for the technology review?

As noted in the proposal preamble (82 FR 40974), this source category has already achieved approximately 95-percent reduction in formaldehyde emissions due to the replacement of PF binders with non-PF binders. We conclude that the industry will continue this trend without the need for tighter regulation due to cost considerations (*i.e.*, non-PF binders are less expensive than PF binders). Additionally, as explained above, facilities are currently using PF binders because of customers' specifications for certain products and, thus, would be unable to manufacture such products if we mandate the use of non-PF binders. Therefore, we are finalizing our proposal to readopt the current NESHAP formaldehyde emission limits for existing, new, and reconstructed bonded RS lines at wool fiberglass manufacturing facilities.

*B. Amendments Pursuant to CAA Sections 112(d)(2) and (3) for the Wool Fiberglass Manufacturing Source Category*

1. What did we propose pursuant to CAA sections 112(d)(2) and (3) for the Wool Fiberglass Manufacturing source category?

In the August 29, 2017, action (82 FR 40970), we proposed first-time standards for methanol emitted from forming, cooling, and collection processes on existing, new, and reconstructed bonded RS lines at wool fiberglass manufacturing facilities. We established the MACT floor for methanol emissions based on application of the upper prediction limit (UPL) method to the best-performing five sources in the test data collected under Part 2 of the 2015 ICR. We considered beyond-the-floor options for methanol for all combined collection and curing operation designs as required by CAA section 112(d)(2); however, we did not propose any limits based on the beyond-the-floor analyses because of the potential adverse impacts of additional controls, including the cost of control devices, non-air environmental impacts, and energy implications associated with use of these additional controls.

2. How did our findings pursuant to CAA sections 112(d)(2) and (3) review change for the Wool Fberglass Manufacturing source category?

In this final action, we are revising the methanol emission limits for new and existing bonded RS lines by reflecting just two significant figures, based on comments received on the August 29, 2017, proposal. This is consistent with current bonded RS line emission limits.

3. What key comments did we receive on our findings pursuant to CAA sections 112(d)(2) and (3), and what are our responses?

One commenter stated that the EPA's proposal illegally and arbitrarily relied on the UPL, instead of following the CAA's requirement to set an emission limitation that is not less stringent than the "average emission limitation achieved" by the relevant best-performing sources. The commenter also argued that there was ample support in the record for proposal and adoption of beyond-the-floor limits such as material switching.

We disagree with the commenter. Section 112(d)(3) of the CAA requires the EPA to promulgate standards for major sources of HAP that are based on MACT performance. For existing sources, MACT standards must be at least as stringent as the average emission limitation achieved by the best-performing 12 percent of existing sources (for which the Administrator has emissions information) or the best-performing five sources for source categories with less than 30 sources. For new sources, the MACT standards must be at least as stringent as the control level achieved in practice by the best-controlled similar source. MACT standards also have to be continuously achievable as specified by CAA section 302(k).

Although CAA section 112(d) includes language such as "existing source," "best performing," and "achieved in practice" in referring to source operations, the CAA language does not address whether sources' emission levels should be evaluated over time or be based on

a single test result. In fact, the D.C. Circuit has long recognized the ambiguity in the term “average emission limitation.” See *NACWA v. EPA*, 734 F.3d at 1131 (noting that the court has accorded Chevron deference to the EPA’s interpretation of CAA sections 129 MACT floor requirement) and 112 (“the phrase ‘average emission limitation achieved by the best performing 12 percent of units’ could be interpreted several different ways, with several different variations of what the MACT floor is supposed to represent”). The phrase “average emission limitation achieved by the best performing 12 percent of units” does not specify the methodology that the EPA should use to determine the emissions levels achieved by the best-performing sources. Therefore, the EPA has discretion to interpret the phrase “average emission limitation achieved” by the best performing source or sources. Further, the D.C. Circuit has held repeatedly that the EPA may take the variability of best-performing sources into account in establishing MACT floors. *Sierra Club v. EPA*, 479 F.3d 875, 881-882 (D.C. Cir. 2007). See also, *Cement Kiln Recycling Coalition v. EPA*, 255 F. 3d 861, 865 (D.C. Cir. 2001); *National Lime Ass’n v. EPA*, 627 F.2d 416, 431 n.46, 443 (D.C. Cir. 1980). Consequently, we apply the UPL approach in developing numeric emission standards when using short-term test data, rather than calculating a straight average of test runs which does not address the performance of a source over time. The UPL is a statistical method to compensate for limited data and account for variability in emissions in determining what emission limitations have been achieved by the best-performing sources. The EPA’s use of the UPL has been upheld based on explanations previously provided in *U.S. Sugar Corp. v. EPA*, 830 F.3d 579, 632-637 (D.C. Cir. 2016). “We believe that the EPA has carried its burden of demonstrating that the UPL reflect[s] a reasonable estimate of the emissions achieved in practice by the best performing sources.” *Id.*, at 635 (Internal citations omitted).

With regard to the comment that we should have set beyond-the-floor limits in light of evidence of material switching, as explained at proposal, there are potential adverse impacts of additional controls for methanol, such as control devices costs, non-air quality health impacts, and energy implications (82 FR 40976). Additionally, as also previously explained, customer specifications preclude the use of products with any currently available non-PF binders and, therefore, requiring non-PF binders as a beyond-the-floor measure would result in these products likely no longer being produced. (“Nothing in section 7429(a)(2) requires the agency to impose a cost so disproportionate to the expected gains.” *Id.*, at 640).

4. What is the rationale for our final approach pursuant to CAA sections 112(d)(2) and (3)?

We based the final methanol emission limits for the forming, cooling, and collection processes on existing, new, and reconstructed RS lines at wool fiberglass manufacturing facilities on data collected under Part 2 of the 2015 ICR. We conclude that, based on the UPL for the best-performing five sources, these limits represent the MACT level of control for methanol emissions currently being achieved on RS line processes by using add-on control devices (*e.g.*, gas scrubbers, thermal oxidizers). In response to the proposed rule, we did not receive any additional emissions and process data for consideration.

*C. Amendments Pursuant to CAA Section 112(h) for the Wool Fiberglass Manufacturing Source Category*

1. What did we propose pursuant to CAA sections 112(h) for the Wool Fiberglass Manufacturing source category?

In the August 29, 2017, action (82 FR 40970), we proposed establishing work practice standards under CAA section 112(h) that represent MACT for phenol emissions from forming, cooling, and collection processes on bonded RS lines. We concluded that it was not feasible to

prescribe or enforce an emission limit for these processes due to the prevalence of emission test values reported as below the detection limit (BDL) of the test method.

2. How did our findings pursuant to CAA section 112(h) change for the Wool Fiberglass Manufacturing source category?

We did not change our proposal to establish work practice standards for phenol emissions under CAA section 112(h) for RS lines. However, based on our evaluation of public comments, we concluded that methods for determining the free-formaldehyde and free-phenol content of binder formulations does not exist. We have, therefore, removed the proposed requirement for facilities to record the free- formaldehyde and free-phenol content of binder formulations, and instead revised the proposed requirement for facilities to record and maintain records of the free-formaldehyde and free-phenol content of the resin purchased. In addition, facilities are required to record and maintain records of the formaldehyde and phenol content of the product binder formulations.

3. What key comments did we receive on our findings pursuant to CAA section 112(h), and what are our responses?

One commenter noted that the proposed rule requires owners or operators to record the free-formaldehyde and free-phenol content of binder, but did not specify the method for determining these values. The proposed rule did not specify the procedures for determining the binder free-formaldehyde and free-phenol content because we were unaware of a published method for conducting the measurement. Based on discussions with the commenter, the industry does not have methods for assessing these parameters in binder formulations. Consequently, we are removing the requirement in the final rule to record the free-formaldehyde and free-phenol

content of binder formulations. We have revised the rule to require facilities to record and maintain records of the free-formaldehyde and free-phenol content of the resin purchased.

One commenter said that the EPA failed to meet the required tests for setting only work practice standards instead of numerical emission limits. The commenter noted that the EPA may promulgate work practice standards instead of numerical standards “only if measuring emission levels is technologically or economically impracticable” (*Sierra Club v. EPA*, 479 F.3d 875, 883- 84 (D.C. Cir. 2007)) and only if doing so “is consistent with the provisions of subsection (d) or (f).” 42 U.S.C. 7412(h)(1). The commenter stated that the presence of BDL values in the test data does not provide an excuse for the EPA to evade the requirement to set numeric standards.

We disagree with the commenter that numerical standards are appropriate for phenol emissions from RS lines. Sections 112(h)(1) and (h)(2)(B) of the CAA provide the EPA with the discretion to adopt a work practice standard, rather than a numeric standard, when “the application of measurement methodology to a particular class of sources is not practicable due to technological and economic limitations.” The “application of measurement methodologies” (described in CAA section 112(h)(2)(B)) means not only conducting a measurement, but also that a measurement has some reasonable relation to what the source is emitting (*i.e.*, that the measurement yields a meaningful value). That is not the case here. Therefore, as proposed, we concluded that it is not feasible to establish a numerical standard for phenol emissions from RS lines. Moreover, a numerical limit established at some level greater than the detection limit (which would be a necessity since any numeric standard would have to be measurable) could authorize and allow more emissions of these HAP than would otherwise be the case.

4. What is the rationale for our final approach pursuant to CAA section 112(h)?

As explained in the proposal preamble, approximately 60 percent of the phenol concentration values were reported as BDL values. Under these circumstances, it is not technologically and economically feasible to measure reliably phenol emissions from RS lines. This is also consistent with our approach in previous rulemakings (*e.g.*, NESHAP for Coal- and Oil-Fired Electric Utility Steam Generating Units, NESHAP for Primary Aluminum Reduction Plants) where test results were predominantly found to be BDL (*e.g.*, more than 55 percent of the test run results). In these instances, the EPA established work practice standards for the pollutants in question from the subject sources because we concluded that emissions of the pollutants are too low to reliably measure and quantify. Similarly, we are finalizing work practice standards for phenol emissions from FA lines.

*D. Amendments for FA Lines in the Wool Fiberglass Manufacturing Source Category*

1. What amendments did we propose for FA lines in the Wool Fiberglass Manufacturing source category?

In the August 29, 2017, action (82 FR 40976), we proposed three subcategories for FA lines under CAA section 112(d)(1) based on recent information indicating that there are technical or design differences that distinguish FA lines that manufacture different wool fiberglass products: (1) Aerospace and Air Filtration; (2) HVAC; and (3) OEM. (See also proposed 40 CFR 63.1381.) We also proposed revisions to the formaldehyde, methanol, and phenol emission limits for FA lines promulgated on July 29, 2015 (80 FR 45280), to reflect these new subcategories and proposed a 1-year compliance period. In a separate action on July 6, 2017 (82 FR 34858), we proposed extending the compliance period for the July 29, 2015, final rule requirements for existing FA lines to 3 years in order to allow the EPA time to review corrected data provided by the industry.

2. How did our findings regarding the FA line proposal change for the Wool Fiberglass Manufacturing source category?

Consistent with our August 29, 2017, proposal, we revised the formaldehyde, methanol, and phenol limits for FA lines to incorporate updated production data received from the industry. We also revised the definition of the Aerospace subcategory to include FA lines that manufacture pipe products to reflect comments we received on our proposal. Table 2 shows the final emission limits for the FA line subcategories.

**Table 2. Final Emission Limits for FA Line Subcategories (lb/ton)**

<b>Subcategory</b>	<b>Pollutant</b>	<b>Existing Sources</b>	<b>New and Reconstructed Sources</b>
Aerospace, Air Filtration, and Pipe Products	Formaldehyde	27	18.0
	Methanol	8.9	4.0
HVAC	Formaldehyde	2.8	2.4
	Methanol	7.3	1.5
	Phenol	0.4	0.4
OEM	Formaldehyde	5.0	2.9
	Methanol	5.7	1.1
	Phenol	31	22

3. What key comments did we receive regarding the FA line proposal?

One commenter noted that we did not use the correct production rate values in calculating the test run values (expressed in terms of pounds of pollutant per ton of glass pulled) that we used in the UPL analysis. We acknowledge the error in the industry data, and the emission limits for FA lines in the final rule, reflects the updated production values.

One commenter noted that the Aerospace and Air Filtration Products subcategory should include pipe products because the same base resin is used in manufacturing these products. We agree with the commenter that it is appropriate for pipe products and the Aerospace and Air

Filtration Products subcategory to meet the same emission limits; therefore, we revised the Table 2 to 40 CFR part 63, subpart NNN in the final rule.

Another commenter stated that the EPA's proposal to subcategorize FA lines so that each individual source is its own subcategory is irrational and unlawful and does not meet the statutory test for subcategorization specified in CAA section 112(d)(1), which is based on the "classes, types, and sizes" of sources. The commenter said that the EPA failed to provide the necessary determination to subcategorize, including a demonstration of: (1) why these different products make the different lines somehow appropriate to divide into subcategories; (2) why the different products require the use of different binders, some with greater amounts of pollutants; or (3) why the EPA is changing its prior proposal not to subcategorize FA lines. The commenter also stated that there was no support for the work practice standard for phenol emissions from the Aerospace, Air Filtration, and Pipe Products subcategory.

We disagree with the commenter. In the April 15, 2013, proposal (78 FR 22387), we proposed to eliminate the heavy density and pipe subcategories of FA manufacturing lines because we no longer believe that a technical basis exists to distinguish these subcategories, and, in the July 29, 2015, action, we finalized emission limits for FA lines that apply to all types of products. However, as noted in the August 29, 2017, proposal (82 FR 40977), the data (that we used to determine that FA line emission limits) contained errors in the analytical results for formaldehyde, methanol, and phenol. In fact, the data used to set the 2015 emission limits did not represent every product manufactured by the source category. Our review of the corrected FA line data received from the industry identified that the phenol emission from certain FA production lines were 1- to 2-orders of magnitude higher than other FA lines. In addition, we found that some FA lines, due to their lower pull rates, were never represented in the data used to

set the 2015 emission limits for FA lines. Based on discussions with Johns Manville (the only company currently operating FA lines), we were able to attribute the differences in phenol emissions to the use of different binder formulations in the manufacture of different wool fiberglass products for specific customer demands and end uses. We had also explained that PF binder application varies with the result that phenol emissions are either higher or lower depending on the product being manufactured (82 FR 40977). Additionally, proposed 40 CFR 63.1381 presented the proposed subcategories. Based on our proposal, we conclude that the different products manufactured, and their represented manufacturing processes are an acceptable basis that Congress intended for distinguishing between classes or types of sources. We also note that “type” is “undefined and unrestricted” in CAA section 112(d)(1). *U.S. Sugar Corp.*, 830 F.3d at 656.

One commenter noted that the final rule should include criteria for designating the appropriate subcategory for individual FA lines and suggested that the subcategory be assigned based on the type of product manufactured for 75 percent of the FA line’s operating hours. We agree with the commenter. Therefore, we have revised the subcategory definitions in the final rule to include the percent-operating time criteria.

One commenter objected to the EPA’s proposal to extend the compliance date for FA lines because the EPA’s action violates: (1) the clear compliance deadline requirements for air toxics standards provided in 40 U.S.C. 7412(i)(3); (2) the prohibition on a delay of effectiveness of more than 3 months for the purpose of reconsideration according to 40 U.S.C 7607(d)(7)(B); and (3) the core public notice-and-comment requirements of the CAA and reasoned decision-making because the EPA did not provide any information, data, or documents related to the erroneous data in the public docket. The commenter also asserted that the EPA’s proposed action

is arbitrary and capricious because it is unsupported by evidence in the record and it conflicts with evidence in the record. The commenter argued that the EPA is changing its prior determination of the 2-year compliance date without the required acknowledgment and a reasoned explanation, including a justification for disregarding the facts previously found. The commenter also said EPA has given no indication that the concern it raised applies to more than one facility or a sufficient number of facilities to justify considering a new compliance date for all sources, as opposed to evaluating a request for a single compliance date extension of 1 year under the statutory mechanism for that purpose. In addition, the EPA has failed to consider or address in any way the health and environmental effects of the compliance delay it proposes.

We disagree with the commenter. The direct final action did not stay the effectiveness of the July 29, 2015, final rule but rather extended the compliance date for FA lines by one year. (82 FR 34858). Moreover, because the EPA received adverse comments, the direct final notice was subsequently withdrawn and did not go into effect. Additionally, in a separate action, of August 29, 2017, the EPA proposed a different approach that was based on new data and information provided by Johns Manville, which can be found in the docket for this rulemaking. In this document, the EPA is taking action to finalize the approach presented in the August 29, 2017, that includes the creation of subcategories for FA lines. As such, assertions that the approach presented in the direct final and parallel proposal were insufficiently supported by the record are not relevant to this action. The final action is consistent with the statutory mandate and fully supported by the rulemaking record. As previously explained, CAA section 112(i)(3)(A) specifies that the compliance date for existing sources must provide for compliance as expeditiously as practicable, no later than 3 years after the effective date of the standard. The compliance deadline in this final rule does not exceed the 3-year period allowed under CAA

section 112(i)(3)(A). As also previously explained, it reflects the period the EPA believes sources need to comply with these revised standards and conduct the necessary compliance tests (refer to section III.E of this action).

We also disagree that the 3-month period for staying the effectiveness of a rule is relevant. The compliance extension contained within this action does not stay the effectiveness of a rule by altering the effective date. Instead, it simply extends the compliance date -- an action which has its own effective date. Moreover, the CAA requirements at 40 U.S.C. 7607(d)(7)(B) specify the conditions for submitting and the requirements for responding to a petition for reconsideration. As we explained in the July 2017 action, we extended the compliance date on our own initiative because we discovered that the data on which the July 2015 final rule was based contained errors. We were not proceeding in response to a petition for reconsideration of the rule.

As previously discussed regarding the response to comments on our proposed work practice standards for phenol emissions from RS lines, in section IV.C of this preamble, we disagree with the commenter that numerical standards are appropriate for phenol emissions from FA lines. For the reasons provided in section IV.C, we conclude that it is not feasible to establish a numerical standard for phenol emissions from FA lines manufacturing aerospace, air filtration, and pipe products.

#### 4. What is the rationale for our final approach for FA lines?

Based on the corrected phenol emissions data and the different binder formulations used, we conclude it is appropriate to establish the Aerospace, HVAC, and OEM subcategories and their associated emission standards for FA lines in this final rule. We are providing a period of 3 years to allow owners and operators of FA lines sufficient time to plan and conduct compliance

tests, submit notifications and compliance status reports, and to evaluate current control technology conditions, if needed.

*E. Other Amendments to the Wool Fiberglass Manufacturing NESHAP*

1. What other amendments did we propose to the Wool Fiberglass Manufacturing NESHAP?

In the August 29, 2017, action we proposed amendments to the incinerator operating limits specified in 40 CFR 63.1382(c)(6) to clearly indicate that the subsection applies to total RS or FA line emissions. In addition, we proposed revisions to 40 CFR 63.1383(g)(1) to include this clarification as it relates to monitoring requirements.

In the August 29, 2017, proposed rule, we revised 40 CFR 63.1382(c)(8)(i) to include corrective action requirements as they apply to the new RS line emission limits, and the revised FA line emission limits. Similarly, we proposed revisions to 40 CFR 63.1383(h) to reflect monitoring requirements applicable to the new RS line emission limits, and the revised FA line emission limits. In addition, we revised 40 CFR 63.1383(i)(1) to address owner or operators who use process modifications to control both formaldehyde and methanol emissions.

The August 29, 2017, proposed rule included clarification for performance test requirements, as included in 40 CFR 63.1384(a)(3), and revised 40 CFR 63.1384(a)(9) to require the requirement to monitor and record the free-phenol content of the binder formulation.

Lastly, we proposed to allow owners or operators that conducted emissions tests in 2016 in response to the EPA's ICR to submit those performance test results to demonstrate initial compliance with the new methanol emission limits for RS lines, rather than conducting additional tests.

2. How did our findings change for the Wool Fiberglass Manufacturing NESHAP?

Based on comments received, we reiterate in this final action that the incinerator operating limits of 40 CFR 63.1382(c)(6) apply to total emissions from forming, cooling, and collection for RS lines and to total emissions from forming, cooling, and collection for FA lines.

3. What key comments did we receive regarding the Wool Fiberglass Manufacturing NESHAP in general?

One commenter noted that in the August 29, 2017, proposed rule preamble the EPA stated that “We are also proposing amendments to the incinerator operating limits specified in 40 CFR 63.1382(c)(6) to clearly indicate that the subsection applies to cooling emissions. Incinerators would be required to control the final formaldehyde, methanol, and, where applicable, phenol emissions from forming, curing, and cooling processes for both FA and bonded RS lines.” 82 FR 40976. The commenter suggested that the EPA should make clear that an owner or operator must meet the incinerator requirements *in the event* the cooling section on a particular line uses incineration as a means of control. The commenter indicated that the rule text revision was acceptable, but the preamble language was contradictory.

We have finalized 40 CFR 63.1382(c)(g) as proposed, but have provided clarification in this preamble to indicate that the incinerator operating limit applies to the total emissions from the production line, and does not apply to individual incinerators used for each of the processes within the production line.

As noted in section IV.C.2 of this preamble, one commenter noted that the proposed rule requires owners or operators to record the free-phenol content of binder, but did not specify the method for determining free-phenol content of the binders. Based on discussions with the commenter, the industry does not have a method for assessing this parameter in binder formulations. We have, therefore, revised 40 CFR 63.1384(a)(9) to require facilities to record

and maintain records of the free-phenol content of the resin purchased. In addition, the facilities are required to maintain records of the formaldehyde and phenol content of the binder formulations used in the products.

4. What is the rationale for our final approach for the additional amendments to the Wool Fiberglass Manufacturing NESHAP?

We have revised the requirement for monitoring and recording the free-phenol content to specify that facilities must monitor and record the free-phenol content of the resin purchased, and not of the binder formulation. All other proposed rule revisions are finalized as proposed. We provide clarification in this preamble the intent of the incinerator operating limits included in the final rule, and indicate they are applicable to the RS and FA lines at wool fiberglass manufacturing facilities.

## **V. Summary of Cost, Environmental, and Economic Impacts and Additional Analyses Conducted**

*A. What are the affected facilities?*

Currently, only three wool fiberglass manufacturing facilities continue to use RS lines to manufacture a bonded product. These three facilities operate six bonded RS lines that would be affected by the revised emission limits. Additionally, two facilities continue to use FA lines to manufacture a bonded product. The EPA is not currently aware of any planned or potential new or reconstructed bonded RS or FA lines.

*B. What are the air quality impacts?*

Based on the test data received in response to the 2015 ICR, the three facilities with bonded RS lines currently meet the final emission limits for formaldehyde and methanol. Furthermore, based on available information, we expect the two facilities with bonded FA lines

will be able to meet the emission limits for formaldehyde, methanol and phenol without additional controls. Therefore, the emission limits for formaldehyde, methanol and phenol will likely not result in further HAP emissions reductions. Also, we do not anticipate secondary environmental impacts from the final amendments to the Wool Fiberglass Manufacturing NESHAP because we expect that owners or operators will not need to install additional control devices to meet any of the standards.

*C. What are the cost impacts?*

Because the existing facilities will not need to install add-on control devices or implement process modifications to comply with the final emissions standards, and because the EPA is allowing facilities to use the test reports submitted in response to Part 2 of the ICR to demonstrate initial compliance with the final emission limits for RS lines, the five facilities that are subject to the final emission standards will not incur increased costs for installing or upgrading emissions control systems. However, the facilities that are subject to this final action will each incur costs related to the testing and notifications requirements related to emission limits, and additional monitoring and recordkeeping activities related to work practice standards. The total annual cost of this final action is approximately \$13,131/year (2016 dollars).

*D. What are the economic impacts?*

Economic impact analyses evaluate changes in market prices and output levels. If changes in market prices and output levels in the directly affected markets are significant, impacts on other markets are also examined. Both the magnitude of costs needed to comply with the rule and the distribution of these costs among affected facilities can have a role in determining how the market will change in response to a rule.

The final standards for RS lines at wool fiberglass manufacturing facilities do not impose control costs or additional testing costs on affected facilities. However, affected facilities will have reporting requirements (*i.e.*, an initial notification and a notification of compliance status) associated with the final formaldehyde and methanol emission limits and monitoring and recordkeeping requirements associated with the phenol work practice standard. We estimate that the total annual cost of this final action is approximately \$13,131/year (2016 dollars). The economic impacts associated with the costs of this final action are quite low; each affected firm is estimated to experience an impact of less than 0.01 percent of their revenues.

*E. What are the benefits?*

Based on the data collected under Part 2 of the ICR, the actual formaldehyde emissions from all bonded RS lines are lower than the level allowed under the 1999 NESHAP. Although the final standards for formaldehyde from RS lines do not achieve further emissions reductions, the final emission limits for methanol and the work practice standards for phenol ensure that the emissions reductions that have been achieved since the 1999 NESHAP will persist into the future and that emissions will not increase.

*F. What analysis of environmental justice did we conduct?*

This action does not have disproportionately high and adverse human health or environmental effects on minority populations, low-income populations, and/or indigenous peoples, as specified in Executive Order 12898 (59 FR 7629, February 16, 1994), and it does not establish an environmental health or safety standard.

*G. What analysis of children's environmental health did we conduct?*

This final action is not subject to Executive Order 13045 because it does not concern an environmental health risk or safety risk.

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

Additional information about these statutes and Executive Orders can be found at <http://www2.epa.gov/laws-regulations/laws-and-executive-orders>.

### *A. Executive Orders 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. OMB has previously approved the information collection activities contained in the existing regulations and has assigned OMB control number 1160.10. This action does not change the information collection requirements.

### *D. Regulatory Flexibility Act (RFA)*

I certify that this action will not have a significant economic impact on a substantial number of small entities under the RFA. This action will not impose any requirements on small entities. None of the five entities affected by this action are small entities, using the Small Business Administration definition of small business for the affected NAICS code (327993), which is 1,500 employees for the ultimate parent company.

### *E. Unfunded Mandates Reform Act (UMRA)*

This action does not contain an unfunded mandate of \$100 million or more 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 action readopts the existing emission limit for formaldehyde and establishes new emission limits for methanol and a work practice standard for phenol emissions for RS lines. This action also includes revisions to the standards for FA lines. Thus, Executive Order 13175 does not apply to this action.

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

The EPA interprets Executive Order 13045 as applying only to those regulatory actions that concern environmental health or safety risks that the EPA has reason to believe may disproportionately affect children, per the definition of “covered regulatory action” in section 2-202 of the Executive Order. This action is not subject to Executive Order 13045 because it does not concern an environmental health risk or safety risk.

*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. Therefore, the EPA conducted searches for the Wool Fiberglass Manufacturing Area Source NESHAP through the Enhanced National Standards Systems Network (NSSN) Database managed by the American National Standards Institute (ANSI). We also contacted voluntary consensus standards (VCS) organizations and accessed and searched their databases.

As discussed in the November 2014 supplemental proposal (79 FR 68029), under 40 CFR part 63, subpart NNN, we conducted searches for EPA Methods 5, 318, 320, 29, and 0061 of 40 CFR part 60, Appendix A. These searches did not identify any VCS that were potentially applicable for this rule in lieu of EPA reference methods.

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

The EPA believes that this action does *not* have disproportionately high and adverse human health or environmental effects on minority populations, low-income populations, and/or indigenous peoples, as specified in Executive Order 12898 (59 FR 7629, February 16, 1994). It does not establish an environmental health or safety standard.

*L. Congressional Review Act (CRA)*

This action is subject to the CRA, and the 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).

**List of Subjects in 40 CFR Part 63**

Environmental protection, Administrative practice and procedures, Air pollution control, Hazardous substances, Reporting and recordkeeping requirements, Wool fiberglass manufacturing.

Dated: December 15, 2017.

E. Scott Pruitt,  
Administrator.

For the reasons stated in the preamble, the EPA is amending title 40, chapter I, part 63 of the Code of the Federal Regulations as follows:

**PART 63—NATIONAL EMISSION STANDARDS FOR HAZARDOUS AIR  
POLLUTANTS FOR SOURCE CATEGORIES**

1. The authority citation for part 63 continues to read as follows:

**Authority:** 42 U.S.C. 7401 *et seq.*

**Subpart NNN--National Emission Standards for Hazardous Air Pollutants for Wool  
Fiberglass Manufacturing**

2. Section 63.1381 is amended by adding the definitions, in alphabetical order, for “Aerospace and air filtration products”; “Heating, ventilation, and air conditioning (HVAC) products”; and “Original equipment manufacturer (OEM) products” and revising the definition of “Pipe product” to read as follows:

**§63.1381 Definitions.**

\* \* \* \* \*

*Aerospace and air filtration products* means bonded wool fiberglass insulation manufactured for the thermal and acoustical insulation of aircraft and/or the air filtration markets. For the purposes of this subpart, a production line that manufactures these types of products for 75 percent or more of the line’s annual operating hours is considered to be an aerospace and air filtration products line.

\* \* \* \* \*

*Heating, ventilation, and air conditioning (HVAC) products* means bonded wool fiberglass insulation manufactured for use in HVAC systems for the distribution of air or for thermal and acoustical insulation of HVAC distribution lines. For the purposes of this subpart, a

production line that manufactures these types of products for 75 percent or more of the line's annual operating hours is considered to be an HVAC products line.

\* \* \* \* \*

*Original equipment manufacturer (OEM) products* means bonded wool fiberglass insulation manufactured for OEM entities that fabricate the insulation into parts used as thermal or acoustical insulation in products including, but not limited to, appliances, refrigeration units, and office interior equipment. For the purposes of this subpart, a production line that manufactures these types of products for 75 percent or more of the line's annual operating hours is considered to be an OEM products line.

*Pipe product* means bonded wool fiberglass insulation manufactured on a flame attenuation manufacturing line and having a loss on ignition of 8 to 14 percent and a density of 48 to 96 kg/m<sup>3</sup> (3 to 6 lb/ft<sup>3</sup>). For the purposes of this subpart, a production line that manufactures these types of products for 75 percent or more of the line's annual operating hours is considered to be a pipe product line.

\* \* \* \* \*

3. Section 63.1382 is amended by revising paragraphs (c)(6), (c)(8)(i), and (c)(9) to read as follows:

**§63.1382 Emission standards.**

\* \* \* \* \*

(c) \* \* \*

(6) The owner or operator must operate each incinerator used to comply with the emission limits for rotary spin or flame attenuation lines specified in Table 2 to this subpart such

that any 3-hour block average temperature in the firebox does not fall below the average established during the performance test as specified in §63.1384.

\* \* \* \* \*

(8)(i) The owner or operator must initiate corrective action within 1 hour when the monitored process parameter level(s) is outside the limit(s) established during the performance test as specified in §63.1384 for the process modification(s) used to comply with the emission limits for rotary spin or flame attenuation lines specified in Table 2 to this subpart, and complete corrective actions in a timely manner according to the procedures in the operations, maintenance, and monitoring plan.

\* \* \* \* \*

(9) The owner or operator must use a resin in the formulation of binder such that the free-formaldehyde and free-phenol contents of the resin used do not exceed the respective ranges contained in the specification for the resin used during the performance test as specified in §63.1384.

\* \* \* \* \*

4. Section 63.1383 is amended by revising paragraphs (g)(1), (h), (i)(1), and (j) to read as follows:

**§63.1383 Monitoring requirements.**

\* \* \* \* \*

(g)(1) The owner or operator who uses an incinerator to comply with the emission limits for rotary spin or flame attenuation lines specified in Table 2 to this subpart must install, calibrate, maintain, and operate a monitoring device that continuously measures and records the operating temperature in the firebox of each incinerator.

\* \* \* \* \*

(h) The owner or operator who uses a wet scrubbing control device to comply with the emission limits for rotary spin or flame attenuation lines specified in Table 2 to this subpart must install, calibrate, maintain, and operate monitoring devices that continuously monitor and record the gas pressure drop across each scrubber and the scrubbing liquid flow rate to each scrubber according to the procedures in the operations, maintenance, and monitoring plan. The pressure drop monitor must be certified by its manufacturer to be accurate within  $\pm 250$  pascals ( $\pm 1$  inch water gauge) over its operating range, and the flow rate monitor must be certified by its manufacturer to be accurate within  $\pm 5$  percent over its operating range. The owner or operator must also continuously monitor and record the feed rate of any chemical(s) added to the scrubbing liquid.

(i)(1) The owner or operator who uses process modifications to comply with the emission limits for rotary spin or flame attenuation lines specified in Table 2 to this subpart must establish a correlation between formaldehyde, methanol, and phenol emissions, as appropriate, and the process parameter(s) to be monitored.

\* \* \* \* \*

(j) The owner or operator must monitor and record the free-formaldehyde and free-phenol content of each resin shipment received and of each resin used in the formulation of binder.

\* \* \* \* \*

5. Section 63.1384 is amended by revising paragraphs (a) introductory text, (a)(3), (a)(9), and (c) introductory text to read as follows:

**§63.1384 Performance test requirements.**

(a) The owner or operator subject to the provisions of this subpart shall conduct a performance test to demonstrate compliance with the applicable emission limits in §63.1382. Compliance is demonstrated when the emission rate of the pollutant is equal to or less than each of the applicable emission limits in §63.1382. The owner or operator shall conduct the performance test according to the procedures in 40 CFR part 63, subpart A and in this section. If the owner or operator conducted an emissions test in 2016 according to the procedures specified in §63.1384(a)(9) and §63.1385 in response to the EPA's Information Collection Request, the owner or operator can use the results of the emissions test to demonstrate initial compliance with the emission limits for rotary spin lines specified in Table 2 to this subpart.

\* \* \* \* \*

(3) During each performance test, the owner or operator must monitor and record the glass pull rate for each glass-melting furnace and, if different, the glass pull rate for each rotary spin manufacturing line and flame attenuation manufacturing line. Record the glass pull rate every 15 minutes during any performance test required by this subpart and determine the arithmetic average of the recorded measurements for each test run and calculate the average of the three test runs. If a rotary spin or flame attenuation line shares one or more emissions points with another rotary spin or flame attenuation line(s), owners or operators can conduct the performance test while each of the process lines with the shared emissions point(s) is operating as specified in paragraph (a)(8) of this section, rather than testing each of the shared lines separately. In these cases, owners or operators must use the combined glass pull rate for the process lines with the shared emissions point(s) to demonstrate compliance with the emission limits specified in Table 2 to this subpart.

\* \* \* \* \*

(9) The owner or operator of each rotary spin manufacturing line and flame attenuation manufacturing line regulated by this subpart must conduct performance tests using the resin with the highest free-formaldehyde content. During the performance test of each rotary spin manufacturing line and flame attenuation manufacturing line regulated by this subpart, the owner or operator shall monitor and record the free-formaldehyde and free-phenol contents of the resin, the binder formulation used, and the product LOI and density.

\* \* \* \* \*

(c) To determine compliance with the emission limits specified in Table 2 to this subpart, for formaldehyde and methanol for rotary spin manufacturing lines; formaldehyde, phenol, and methanol for flame attenuation manufacturing lines; and chromium compounds for gas-fired glass-melting furnaces, use the following equation:

\* \* \* \* \*

6. Section 63.1385 is amended by revising paragraph (a)(8) to read as follows:

**§63.1385 Test methods and procedures**

(a) \* \* \*

(8) Method contained in appendix B of this subpart for the determination of the free-formaldehyde content of resin. The owner or operator shall use vendor specifications to determine the free-phenol content of resin.

\* \* \* \* \*

7. Section 63.1386 is amended by revising paragraph (d)(2)(v) to read as follows:

**§63.1386 Notification, recordkeeping, and reporting requirements**

\* \* \* \* \*

(d) \* \* \*

(2) \* \* \*

(v) The formulation of each binder batch and the LOI and density for each product manufactured on a rotary spin manufacturing line or flame attenuation manufacturing line subject to the provisions of this subpart, and the free-formaldehyde and free-phenol contents of each resin shipment received and of each resin used in the binder formulation;

\* \* \* \* \*

8. Table 2 to subpart NNN of part 63 is amended by:

- a. Revising entries 7 and 8;
- b. Redesignating entries 9 through 13 as entries 11 through 15;
- c. Adding new entries 9 and 10;
- d. Revising newly redesignated entries 11 through 15;
- e. Adding entries 16 through 19; and
- f. Adding footnote 5.

The revisions and additions read as follows:

**TABLE 2 TO SUBPART NNN OF PART 63 – EMISSION LIMITS AND COMPLIANCE DATES**

<b>If your source is a:</b>	<b>And you commenced construction:</b>	<b>Your emission limits are:<sup>1</sup></b>	<b>And you must comply by:<sup>2</sup></b>
* * *	* * *	*	
7. Rotary spin manufacturing line	On or before March 31, 1997	1.2 lb formaldehyde per ton of glass pulled <sup>5</sup>	June 14, 2002.
8. Rotary spin manufacturing line	After March 31, 1997	0.8 lb formaldehyde per ton of glass pulled <sup>5</sup>	June 14, 1999.
9. Rotary spin manufacturing line	On or before November 25, 2011	1.2 lb formaldehyde per ton of glass pulled 1.1 lb methanol per ton of glass pulled	December 26, 2020.
10. Rotary spin manufacturing	After November 25, 2011	0.8 lb formaldehyde per ton of glass pulled	<b>[insert date of publication in the</b>

line		0.65 lb methanol per ton of glass pulled	<b>Federal Register].<sup>4</sup></b>
11. Flame-attenuation line manufacturing a heavy-density product	After March 31, 1997, but on or before November 25, 2011	7.8 lb formaldehyde per ton of glass pulled <sup>5</sup>	June 14, 1999.
12. Flame-attenuation line manufacturing a pipe product	On or before March 31, 1997	6.8 lb formaldehyde per ton of glass pulled <sup>5</sup>	June 14, 2002.
13. Flame-attenuation line manufacturing a pipe product	After March 31, 1997, but before November 25, 2011	6.8 lb formaldehyde per ton of glass pulled <sup>5</sup>	June 14, 1999.
14. Flame-attenuation line manufacturing an aerospace, air filtration, or pipe product	On or before November 25, 2011	27 lb formaldehyde per ton of glass pulled 8.9 lb methanol per ton of glass pulled	December 26, 2020.
15. Flame-attenuation line manufacturing an aerospace, air filtration, or pipe product	After November 25, 2011	18.0 lb formaldehyde per ton of glass pulled 4.0 lb methanol per ton of glass pulled	<b>[insert date of publication in the Federal Register].<sup>4</sup></b>
16. Flame-attenuation line manufacturing an HVAC product	On or before November 25, 2011	2.8 lb formaldehyde per ton of glass pulled 7.3 lb methanol per ton of glass pulled 0.4 lb phenol per ton of glass pulled	December 26, 2020.
17. Flame-attenuation line manufacturing an HVAC product	After November 25, 2011	2.4 lb formaldehyde per ton of glass pulled 1.5 lb methanol per ton of glass pulled 0.4 lb phenol per ton of glass pulled	<b>[insert date of publication in the Federal Register].<sup>4</sup></b>
18. Flame-attenuation line manufacturing an OEM product	On or before November 25, 2011	5.0 lb formaldehyde per ton of glass pulled 5.7 lb methanol per ton of glass pulled 31 lb phenol per ton of glass pulled	December 26, 2020.

19. Flame-attenuation line manufacturing an OEM product	After November 25, 2011	2.9 lb formaldehyde per ton of glass pulled 1.1 lb methanol per ton of glass pulled 22 lb phenol per ton of glass pulled	<b>[insert date of publication in the Federal Register].<sup>4</sup></b>
---	-------------------------	--	--

<sup>1</sup>The numeric limits do not apply during startup and shutdown.

<sup>2</sup>Existing sources must demonstrate compliance by the compliance dates specified in this table. New sources have 180 days after the applicable compliance date to demonstrate compliance.

\* \* \* \* \*

<sup>4</sup>Or initial startup, whichever is later.

<sup>5</sup>This limit does not apply after December 26, 2020.

[FR Doc. 2017-27797 Filed: 12/22/2017 8:45 am; Publication Date: 12/26/2017]