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6560-50-P

The EPA Administrator, Andrew Wheeler, signed the following document on March 6, 2020, and the agency is submitting it for publication in the Federal Register (FR). While we have taken steps to ensure the accuracy of this Internet version of the document, it is not the official version. Please refer to the official version in a forthcoming FR publication, which will appear on the Government Printing Office's FDSys website (<http://fdsys.gpo.gov/fdsys/search/home.action>) and on Regulations.gov ([www.regulations.gov](http://www.regulations.gov)) in Docket No. **EPA-HQ-OAR-2013-0597**. Once the official version of this document is published in the FR, this version will be removed from the Internet and replaced with a link to the official version.

## **ENVIRONMENTAL PROTECTION AGENCY**

### **40 CFR Part 82**

**[EPA-HQ-OAR-2013-0597; FRL-XXXX-X]**

**[RIN 2060-AO75]**

### **Protection of the Stratospheric Ozone: Motor Vehicle Air Conditioning System Servicing**

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

**ACTION:** Notice of Proposed Rulemaking.

**SUMMARY:** The U.S. Environmental Protection Agency is proposing to adopt three technical standards developed by SAE International (SAE) for equipment that recovers, recycles, and/or recharges the refrigerant 2,3,3,3-Tetrafluoroprop-1-ene (HFO-1234yf or R-1234yf) in motor vehicle air conditioners (MVACs). The three standards are SAE J2843, SAE J2851, and SAE J3030. This proposed rule would adopt the most current versions of these standards by incorporating them by reference into the regulations related to the protection of stratospheric ozone. This will provide additional flexibility for industry stakeholders that wish to select recovery and recycling equipment certified to these standards.

**DATES:** Comments on this notice of proposed rulemaking must be received on or before

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**[INSERT DATE 45 DAYS AFTER PUBLICATION IN THE FEDERAL REGISTER]**. Any party requesting a public hearing must notify the contact listed below under FOR FURTHER INFORMATION CONTACT by 5 p.m. Eastern Daylight Time on **[INSERT DATE 5 DAYS AFTER PUBLICATION IN THE FEDERAL REGISTER]**. If a public hearing is requested, the hearing will be held on **[INSERT DATE 15 DAYS AFTER PUBLICATION IN THE FEDERAL REGISTER]** in Washington, DC. More details concerning the hearing, including whether a hearing will be held, will be available at <https://www.epa.gov/mvac>. The EPA does not intend to publish any future notices in the *Federal Register* regarding a public hearing on this proposed rule and directs all inquiries regarding a hearing to the website and contact listed below under FOR FURTHER INFORMATION CONTACT.

**ADDRESSES:** You may send comments, identified by Docket ID No. EPA-HQ-OAR-2013-0597, by any of the following methods:

- Federal eRulemaking Portal: <https://www.regulations.gov> (our preferred method). Follow the online instructions for submitting comments.
- Email: [a-and-r-docket@epa.gov](mailto:a-and-r-docket@epa.gov). Include Docket ID No. EPA-HQ-OAR-2013-0597 in the subject line of the message.
- Fax: (202) 566-9744. Attention Docket ID No. EPA-HQ-OAR-2013-0597
- Mail: U.S. Environmental Protection Agency, EPA Docket Center, Docket ID No. EPA-HQ-OAR-2013-0597, Mail Code 28221T, 1200 Pennsylvania Avenue, NW, Washington, DC 20460.
- Hand/Courier Delivery: EPA Docket Center, WJC West Building, Room 3334, 1301 Constitution Avenue, NW, Washington, DC 20004. The Docket Center's hours of operation are 8:30 a.m. – 4:30 p.m., Monday – Friday (except federal holidays).

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*Instructions:* All submissions received must include the Docket ID No. EPA-HQ-OAR-2013-0597. Comments received may be posted without change to <https://www.regulations.gov>, including any personal information provided. For detailed instructions on sending comments and additional information on the rulemaking process, see the **SUPPLEMENTARY INFORMATION** section of this document. All documents in the docket are listed on the <https://www.regulations.gov> website. Standards from SAE Surface Vehicle Standards referenced in the index are property of SAE and are reasonably available for purchase at <https://www.sae.org/standards/.org>. Publicly available docket materials are available electronically through <https://www.regulations.gov> and all information, including the three SAE standards that are being incorporated by reference, is available in hard copy at the Air and Radiation Docket, EPA/DC, EPA West, Room 3334, 1301 Constitution Avenue, NW. Washington, D.C. 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 Air and Radiation Docket is (202) 566-1742.

**FOR FURTHER INFORMATION CONTACT:** Christina Motilall, Stratospheric Protection Division, Office of Atmospheric Programs (Mail Code 6205T), Environmental Protection Agency, 1200 Pennsylvania Ave. NW., Washington, DC 20460; telephone number: 202-564-1287; email address: [motilall.christina@epa.gov](mailto:motilall.christina@epa.gov).

**SUPPLEMENTARY INFORMATION:** Direct your comments to Docket ID No. EPA-HQ-OAR-2013-0597. The EPA's policy is that all comments received will be included in the public docket without change and may be made available online at <https://www.regulations.gov>, including any personal information provided, unless the comment includes information claimed to be Confidential Business Information (CBI) or other information whose disclosure is restricted

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by statute. Do not submit information that you consider to be CBI or otherwise protected through <https://www.regulations.gov> or email. This type of information should be submitted by mail as discussed below.

The EPA may publish any comment received to its public docket. Multimedia submissions (audio, video, etc.) must be accompanied by a written comment. The written comment is considered the official comment and should include discussion of all points you wish to make. The EPA will generally not consider comments or comment contents located outside of the primary submission (i.e., on the Web, cloud, or other file sharing system). For additional submission methods, the full EPA public comment policy, information about CBI or multimedia submissions, and general guidance on making effective comments, please visit <https://www.epa.gov/dockets/commenting-epa-dockets>.

The <https://www.regulations.gov> website allows you to submit your comment anonymously, which means the EPA will not know your identity or contact information unless you provide it in the body of your comment. If you send an email comment directly to the EPA without going through <https://www.regulations.gov>, your email address will be automatically captured and included as part of the comment that is placed in the public docket and made available on the Internet. If you submit an electronic comment, the EPA recommends that you include your name and other contact information in the body of your comment and with any digital storage media you submit. If the EPA cannot read your comment due to technical difficulties and cannot contact you for clarification, the EPA may not be able to consider your comment. Electronic files should not include special characters or any form of encryption and be free of any defects or viruses. For additional information about the EPA's public docket, visit the EPA Docket Center homepage at <https://www.epa.gov/dockets>.

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*Submitting CBI.* Do not submit information containing CBI to the EPA through <https://www.regulations.gov> or email. Clearly mark the part or all of the information that you claim to be CBI. For CBI information on any digital storage media that you mail to the EPA, mark the outside of the digital storage media as CBI and then identify electronically within the digital storage media the specific information that is claimed as CBI. In addition to one complete version of the comments that includes information claimed as CBI, you must submit a copy of the comments that does not contain the information claimed as CBI directly to the public docket through the procedures outlined in Instructions above. If you submit any digital storage media that does not contain CBI, mark the outside of the digital storage media clearly that it does not contain CBI. Information not marked as CBI will be included in the public docket and the EPA's electronic public docket without prior notice. Information marked as CBI will not be disclosed except in accordance with procedures set forth in 40 Code of Federal Regulations (CFR) part 2. Send or deliver information identified as CBI only to the following address: OAQPS Document Control Officer (C404-02), OAQPS, U.S. Environmental Protection Agency, Research Triangle Park, North Carolina 27711, Attention Docket ID No. EPA-HQ-OAR-2013-0597

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## **I. General Information**

- A. *Does this action apply to me?*

Potentially regulated entities, identified by the North American Industrial Classification System (NAICS) Code, may include, but are not limited to, the following which all fall under the category of “Industry”:

- New and used car dealers (NAICS code 441110)
- Gas service stations (NAICS codes 447110 and 447190)
- General automotive repair shops (NAICS code 811111)
- Automotive repair shops not elsewhere classified, including air conditioning and radiator specialty shops (NAICS code 811198)
- Other Motor Vehicle Parts Manufacturing (NAICS code 336390)

This list is not intended to be exhaustive, but rather provides a guide for readers regarding entities likely to be regulated by this proposed action. Other types of entities not listed above could also be regulated. To determine whether your entity is regulated by this action, you should carefully examine the applicability criteria found in Clean Air Act (CAA) section 609,

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and relevant implementing regulations at 40 CFR part 82, subpart B. If you have questions regarding the applicability of this action to a particular entity, consult the person listed in the FOR FURTHER INFORMATION CONTACT section.

*B. What acronyms and abbreviations are used in the preamble?*

AHRI	Air-Conditioning, Heating, and Refrigeration Institute, formerly Air-Conditioning and Refrigeration Institute (ARI)
CAA	Clean Air Act
CFC	Chlorofluorocarbon
CFR	Code of Federal Regulations
EPA	United States Environmental Protection Agency
ETL	ETL Testing Laboratories
HCFC	Hydrochlorofluorocarbon
HFC	Hydrofluorocarbon
HFO	Hydrofluoroolefin
MVACs	Motor Vehicle Air Conditioners
MY	Model Year
NAICS	North American Industrial Classification System
NTTAA	National Technology Transfer and Advancement Act
OMB	Office of Management and Budget
PRA	Paperwork Reduction Act
RFA	Regulatory Flexibility Act
SAE	SAE International, formerly the Society of Automotive Engineers
SNAP	Significant New Alternatives Policy
UMRA	Unfunded Mandates Reform Act
UL	Underwriters Laboratories

## **II. Background**

*A. CAA section 609*

CAA section 609 directs the EPA to issue regulations establishing standards and requirements for the servicing of MVACs. For purposes of the regulations implementing CAA section 609, MVACs<sup>1</sup> are defined as equipment that use mechanical vapor compression

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<sup>1</sup> A related definition for MVAC-like is found at 40 CFR 82.152: MVAC-like appliance means a mechanical vapor compression, open-drive compressor appliance with a full charge of 20 pounds or less of refrigerant used to cool the driver's or passenger's compartment of off-road vehicles or equipment. This includes, but is not limited to, the air-conditioning equipment found on agricultural or construction vehicles. This definition is not intended to cover appliances using R-22 refrigerant.

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refrigeration to cool the driver's or passenger's compartment of any motor vehicle. This definition is not intended to encompass the hermetically sealed refrigeration systems used on motor vehicles for refrigerated cargo and the air conditioning systems on passenger buses using hydrochlorofluorocarbons (HCFC)-22 or R-22 refrigerant. For purposes of the section 609 regulations, motor vehicle is defined as any vehicle which is self-propelled and designed for transporting persons or property on a street or highway, including but not limited to passenger cars, light-duty vehicles, and heavy-duty vehicles. This definition does not include a vehicle where final assembly of the vehicle has not been completed by the original equipment manufacturer.

Under CAA section 609 and regulations that implement it, no person repairing or servicing motor vehicles for consideration may perform any service on an MVAC that involves the refrigerant without properly using approved refrigerant recovery or recovery and recycling equipment, and no such person may perform such service unless such person has been properly trained and certified. Section 609 also restricts the sale of class I and class II substances for use as a refrigerant in MVACs in containers of 20 pounds or less, except to certified technicians. Class I substances (chlorofluorocarbons (CFCs), halons, carbon tetrachloride, methyl chloroform, methyl bromide, hydrobromofluorocarbons, and chlorobromomethane) and class II substances (HCFCs) are ozone-depleting compounds and are listed in 40 CFR part 82, subpart A, Appendix A and Appendix B, respectively.

Regulations issued under CAA section 609, codified at 40 CFR part 82, subpart B, include, among other things, prohibited and required practices for persons repairing and servicing MVACs for consideration (40 CFR 82.34); requirements for refrigerant handling equipment (40 CFR 82.36); approval processes for independent standards testing organizations

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(40 CFR 82.38); and requirements for certifications that any person servicing or repairing MVACs for consideration must submit to the EPA, and related recordkeeping requirements (40 CFR 82.42). Appendices A-F at 40 CFR 82, subpart B, provide minimum operating requirements for equipment used for the recovery, recycling and/or recharging of refrigerant used in MVACs.

*B. Major rules under section 609*

In 1992, the EPA published a rule (57 FR 31242; July 14, 1992) under CAA section 609 establishing standards and requirements for servicing of MVACs and restricting the sale of small containers of ozone-depleting substances. The regulations, which appear in 40 CFR Part 82, subpart B, require persons who repair or service MVACs for consideration to be certified in refrigerant recovery and recycling and to properly use approved equipment when performing service involving the refrigerant. “Refrigerant” is defined in subpart B as any class I or class II substance used in MVACs, and to include any substitute substance effective November 15, 1995. The 1992 rule also defined approved refrigerant recycling equipment as equipment certified by the Administrator or an approved organization as meeting either one of the standards in 40 CFR 82.36. Such equipment extracts and recycles refrigerant or extracts but does not recycle refrigerant, allowing that refrigerant to be subsequently recycled on-site or to be sent off-site for reclamation.<sup>2</sup> The EPA based the regulatory equipment standards in subpart B on those developed by SAE. They cover service procedures for dichlorodifluoromethane (CFC-12 or R-12) recover/recycle equipment (SAE J1989, issued in October 1989), test procedures to evaluate R-12 recover/recycle equipment (SAE J1990, issued in October 1989 and revised in 1991) and a purity standard for recycled R-12 refrigerant (SAE J1991, issued in October 1989). Only

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<sup>2</sup> Equipment that extracts and recycles refrigerant is referred to as recover/recycle equipment. Equipment that extracts but does not recycle refrigerant is referred to as equipment that recovers but does not recycle refrigerant, or as recover-only equipment.

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equipment certified to meet the standards set forth in Appendix A at 40 CFR part 82, subpart B, or that meet the criteria for substantially identical equipment, was approved under CAA section 609 for use in the servicing of MVACs at that time.

The 1992 rule also implemented the statutory prohibition on the sale or distribution of any class I or class II substance suitable for use in MVACs that is in a container of less than 20 pounds, to anyone other than a properly trained and certified section 609 technician. The rule also contained standards by which: (1) an independent standards testing organization may apply to the agency for approval to test and approve refrigerant recycling equipment; and (2) a training and certification program may apply to the agency for approval to train and certify technicians in the proper use of refrigerant recycling equipment for MVACs. Underwriters Laboratories (UL) and ETL Testing Laboratories (ETL) are the approved independent standards testing organizations that currently certify equipment using the standards that appear in Appendix A of 40 CFR part 82, subpart B.

Finally, the 1992 rule established recordkeeping and reporting requirements that include: certifying that only properly trained and certified individuals are repairing or servicing MVACs for consideration; certifying the use of approved recycling equipment and that each individual authorized to use the equipment has obtained the proper training and certification; and requiring that owners of approved refrigerant recycling equipment retain records demonstrating that all persons authorized to operate the equipment obtained the required certification.

In 1995, the EPA issued a rule (60 FR 21682; May 2, 1995) establishing regulatory standards, based on standards developed by SAE, which applied to certification of R-12 recover-only equipment, in Appendix B at 40 CFR part 82, subpart B. Specifically, for recover-only equipment, the agency adopted the recommended service procedure for the containment of R-12

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(SAE J1989, issued in October 1989 and set forth in subpart B Appendix B) and test procedures to evaluate recover-only equipment (SAE J2209, issued in June 1992). The definition of “approved refrigerant recycling equipment” was revised in the 1995 rule to include this recover-only equipment. UL and ETL were also approved to certify recover-only equipment. Finally, service technicians previously certified to handle recover/recycle equipment were grandfathered so that they would not have to be recertified to handle recover-only equipment.

The EPA issued a third rule under CAA section 609 in 1997 (62 FR 68026; December 30, 1997) in response to the increasing use of alternative refrigerants, particularly 1,1,1,2-tetrafluoroethane (HFC-134a or R-134a). The 1997 rule established standards and requirements for the servicing of MVACs that use any refrigerant other than R-12. The rule also stated refrigerant (whether R-12 or a substitute) recovered from motor vehicles at motor vehicle disposal facilities may be re-used in the MVAC service sector only if it has been properly recovered and recycled by persons who are either employees, owners, or operators of the facilities, or technicians certified under CAA section 609, using approved equipment. The 1997 rule also established conditions under which owners and operators of motor vehicle disposal facilities may sell refrigerant recovered from such vehicles to technicians certified under CAA section 609.

Additionally, the 1997 rule established standards for recover/recycle equipment for R-134a; recover-only equipment for R-12, R-134a, and R-1234yf; recycling equipment intended for use with both R-12 and R-134a; and recover-only equipment for a single refrigerant other than R-12 or R-134a. The 1997 rule established appendices C through F at 40 CFR part 82, subpart B. Specifically, Appendix C contains standards based on SAE J2788 for recovery/recycle and recovery/recycle/recharging equipment for R-134a refrigerant. Appendix D is based upon

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SAE J1732 and establishes standards for recover-only equipment for R-134a. Appendix E contains standards for recover-only equipment for both R-12 and R-134a, while Appendix F establishes standards for recover-only equipment for any single refrigerant other than R-12 and R-134a.

Since the publication of the 1997 rule, the EPA has published two rules, one in 2007 (72 FR 63490; November 9, 2007) and one in 2008 (73 FR 34644; June 18, 2008), to reflect updated SAE standards. Research showed that equipment certified to meet SAE J2210 and SAE J1732<sup>3</sup> left as much as 30% of the refrigerant in MVACs. As a result of these findings, SAE developed SAE J2788 and SAE J2810, which require that equipment be capable of recovering 95% of refrigerant from MVACs. The two rules adopted SAE J2788 and SAE J2810, which replaced SAE J2210 and SAE J1732, respectively, allowing for an increased percent of refrigerant to be recovered during servicing.

### **III. What is the EPA Proposing in This Action?**

The EPA is proposing to incorporate by reference three standards developed by SAE for equipment servicing MVACs that use a hydrofluoroolefin (HFO)-1234yf or R-1234yf. This proposed rulemaking would adopt three standards that provide technical specifications for equipment used for servicing MVACs containing the refrigerant R-1234yf consistent with section 609 of the CAA and the regulations in 40 CFR part 82, subpart B. R-1234yf was listed by the EPA's Significant New Alternatives Policy (SNAP) program as acceptable, subject to use conditions, in MVACs in new cars and new light-duty trucks (76 FR 17488; March 29, 2011), and in certain new heavy-duty vehicles—new medium-duty passenger vehicles, new heavy-duty

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<sup>3</sup> SAE J2210 (HFC-134a (R-134a) Recovery/Recycling Equipment for Mobile Air-Conditioning Systems(Cancelled Nov 2010)). SAE J1732 (HFC-134a (R-134a) Refrigerant Recovery Equipment for Mobile Automotive Air-Conditioning Systems (STABILIZED Nov 2011))

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pickup trucks, and new complete heavy-duty vans (81 FR 86778; December 1, 2016).

The regulations at 40 CFR 82.34 state that no person repairing or servicing MVACs for consideration may perform any service involving refrigerant for such MVACs without properly using equipment approved pursuant to 40 CFR 82.36. The EPA is proposing that equipment certified to meet the three SAE standards (that the EPA is proposing to incorporate by reference) would be approved to recover, recycle, and/or recharge the refrigerant R-1234yf for MVACs.

*A. What are the standards the EPA is proposing to adopt?*

The EPA is proposing to amend 40 CFR part 82, subpart B, sections 82.32, 82.36, 82.38, and 82.40 to adopt three equipment standards for the servicing of MVACs that use R-1234yf and incorporate these standards by reference. The three standards are:

- SAE J2843 (revised July 2019), “R-1234yf [HFO-1234yf] Recovery/Recycling/Recharging Equipment for Flammable Refrigerants for Mobile Air-Conditioning Systems;”
- SAE J2851 (revised February 2015), “Recovery Equipment for Contaminated R-134a or R-1234yf Refrigerant from Mobile Air Conditioning Systems;” and
- SAE J3030 (revised July 2015), “Automotive Refrigerant Recovery/Recycling/Recharging Equipment Intended for use with Both R-1234yf and R-134a.”

SAE J2843, J2851, and J3030 were developed by SAE, which is a global association of more than 138,000 engineers and related technical experts in the aerospace, automotive, and commercial-vehicle industries. The SAE Interior Climate Control Standards Committee consists of a Steering Committee plus sub-committees: Fluids, MAC Supplier, Service, and Vehicle

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OEM. The SAE Interior Climate Control Standards Committee has published more than 50 documents and has an HS-2900 handbook that include standards on safety, refrigerants, components, testing, service procedures, service equipment, and training. The EPA has previously cited some of these standards in regulations. This committee includes representatives from across the MVAC industry including but not limited to system component manufacturers, automobile manufacturers, servicing equipment manufacturers, and refrigerant manufacturers. Each of the SAE Ground Vehicle Standards for technical specifications related to MVAC servicing undergoes a rigorous peer review process.

All three of the SAE standards that the EPA is proposing to adopt relate to recycling and/or removal of R-1234yf. R-1234yf has gained significant market share in motor vehicles since its introduction in the 2013 model year (MY). According to the 2018 EPA Automotive Trends Report, in the 2017 MY, use of R-1234yf has grown to ten manufacturers (accounting for almost 40% of the US new vehicle fleet) and some manufacturers have implemented R-1234yf across their entire vehicle brands.<sup>4</sup> This increased use of R-1234yf will lead to more MVACs needing to be serviced and/or repaired compared to when R-1234yf was first introduced. Adopting the three standards would assist technicians choosing to repair or service MVACs containing R-1234yf to properly use approved refrigerant handling equipment when performing any service involving the refrigerant. As R-1234yf is classified as mildly flammable, the equipment meeting these standards must have electrical components deemed acceptable for exposure to refrigerants at that level of flammability, ensuring the safety of technicians. This proposed rule would also increase industry flexibility in selecting proper recovery, recycling, and recharging equipment by expanding their options. These standards would also help to mitigate

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<sup>4</sup> <https://www.epa.gov/automotive-trends/download-automotive-trends-report>

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the risk to human health and the environment by directing technicians towards equipment that should limit unintentional releases of automotive refrigerant during the service or repair of MVACs. Moreover, use of equipment that meets the standards the EPA is proposing to incorporate by reference should reduce mixing of refrigerants. Preventing the mixing of refrigerants facilitates refrigerant recycling and reduces releases into the atmosphere. Equipment certified to meet SAE J2843, J2851, and/or J3030 would be approved under CAA section 609 implementing regulations. Equipment meeting these standards are capable of near-complete recovery of refrigerant from such MVACs. Some of this equipment is designed for use with MVACs containing either R-134a or R-1234yf; this equipment is certified to prevent contamination when switching between refrigerants. Below is a further description of each of the standards.

*i. SAE J2843*

SAE J2843 (adopted July 2019) establishes standards for equipment that recovers, recycles, and/or recharges R-1234yf in MVACs. This standard applies to equipment intended for use with R-1234yf refrigerant only. Equipment meeting this standard must be capable of recovering refrigerant within 30 minutes, which is consistent with other SAE standards, resulting in convenience for the car owner as well as the technician. The recycling capabilities of equipment meeting SAE J2843 can return the refrigerant to the same level of purity as newly manufactured (virgin) refrigerant, ensuring that the refrigerant recharged into the system will provide the same level of performance and durability as virgin refrigerant. This recycling allows for the continued use of recovered refrigerant. Prior to recharging an MVAC, service technicians using equipment meeting this standard can check for leaks that could be repaired to avoid refrigerant releases. Maintaining a properly charged MVAC should result in efficient operation.

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*ii. SAE J2851*

SAE J2851 (adopted February 2015) establishes minimum performance and operating standards for equipment that recovers contaminated R-134a and/or R-1234yf refrigerant from MVACs. Refrigerant recovered with this equipment cannot be recycled on-site and instead should be returned to an EPA-approved reclamation facility that will process it appropriately as per Air-Conditioning, Heating, and Refrigeration Institute (AHRI) 700 standard entitled *Specifications for Fluorocarbon Refrigerants*. Refrigerant recovery equipment should ensure adequate refrigerant recovery and reduce emissions during the removal of refrigerant from MVACs.

*iii. SAE J3030*

SAE J3030 (adopted July 2015) establishes the minimum requirements for recovery/recycling/recharging equipment intended for use to service MVACs that contain either R-1234yf or R-134a. New equipment capable of performing any service on MVACs that involves recovery of, recycling of, or recharging with either R-134a or R-1234yf would be required to meet SAE J3030 requirements for both refrigerants. The dual-refrigerant equipment covered by this standard may be useful given that R-134a and R-1234yf are both widely used in motor vehicles in the United States.

*B. What is the effect of adopting these standards?*

Adopting these standards would assist approved independent standards testing organizations (currently UL and ETL) in certifying equipment for commercial refrigerant recovery/recycling that meet the EPA's minimum performance requirements outlined in the CAA. In addition, service and repair shops would be required to use equipment certified to meet SAE J2843, J2851, and J3030 if servicing MVACs using R-1234yf.

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EPA's proposed amendments to 40 CFR 82.36 would revise paragraph (a)(7), add paragraphs (a)(8), (a)(9), (a)(10) and add a note following (a)(10) to add additional options to the list of approved refrigerant handling equipment. This revision would allow servicing equipment manufactured to meet SAE J2843, J2851, and J3030 certified by the EPA or an independent standards testing organization approved by the EPA under 40 CFR 82.38 to meet the requirements of 40 CFR 82.34(a)(1). The EPA is also proposing to amend 40 CFR 82.32(e)(1), 82.38, and 82.40 to include references to 40 CFR 82.36(a)(8)-(10). The revisions to 40 CFR 82.32(e)(1) update the definition of the term "properly using" to add the standards incorporated by reference at 40 CFR 82.36(a)(8)-(10) to the list of recommended service procedures and practices for the containment of refrigerant. The revisions to 40 CFR 82.38 allow independent standards testing organizations to apply for approval to certify equipment as meeting the standards incorporated by reference at 40 CFR 82.36(a)(8)-(10), as well as the currently existing standards in appendices A, B, C, D, E and F. The revisions to 40 CFR 82.40 add the standards incorporated by reference at 40 CFR 82.36(a)(8)-(10) to the list of standards that any technician training program seeking approval must demonstrate are covered by their certification tests. It would be appropriate for approved technician training and certification programs to update their materials to reflect the standards incorporated by reference at 40 CFR 82.36(a)(8)-(10) and to submit a summary of the conforming changes to the Administrator as part of the summary required by 40 CFR 40.82(c). Current regulations at 40 CFR 82.36 contain the requirements for approved refrigerant handling equipment, including the requirement for certification of such equipment by the EPA or an independent, standards testing organization approved by the EPA. The Agency maintains a list of approved equipment by manufacturer and model, found here: <https://www.epa.gov/mvac/section-609-certified-equipment>.

Lastly, the EPA is proposing to amend Appendix F to subpart B of part 82. This appendix contains specifications for recovery equipment that extracts a single, specific refrigerant other than those named in the other appendices to subpart B. Since the EPA is proposing to add standards for recovery equipment for MVACs containing R-1234yf, the EPA is proposing to note that as appropriate, in this appendix.

The EPA is proposing to require technicians servicing MVACs containing R-1234yf to use servicing equipment that meets the minimum requirements of these standards to protect human health and the environment. Use of equipment that meets these standards also supports compliance with the prohibition in section 608(c) of the CAA on knowingly venting or otherwise knowingly releasing or disposing of refrigerant in a manner that allows the refrigerant to enter the environment in the course of servicing, maintaining, repairing, or disposing of an appliance. In addition, proper handling of R-1234yf is important given it is listed by ASHRAE as an A2L refrigerant meaning it is mildly flammable.<sup>5</sup> The EPA requests comment on the adoption of the three SAE standards described in this proposed rulemaking.

#### **IV. Incorporation by Reference**

The EPA is proposing to adopt the following three standards by incorporating them by reference—SAE J2843 (adopted July 2019), “R-1234yf [HFO-1234yf] Recovery/Recycling/Recharging Equipment for Flammable Refrigerants for Mobile Air-Conditioning Systems;” SAE J2851 (adopted February 2015) “Recovery Equipment for Contaminated R-134a or R-1234yf Refrigerant from Mobile Air Conditioning Systems;” and

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<sup>5</sup> American National Standards Institute (ANSI)/ASHRAE Standard 34—2016 assigns a safety group classification for each refrigerant which consists of two alphanumeric characters (*e.g.*, A2 or B1). The capital letter indicates the toxicity (*i.e.*, A=no evidence of toxicity, B=signifies toxicity) and the numeral denotes the flammability. Refrigerants with flammability classification “3” are highly flammable while those with flammability classification “2” are less flammable and those with flammability classification “2L” are mildly flammable.

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SAE J3030 (adopted July 2015) “Automotive Refrigerant Recovery/Recycling/Recharging Equipment Intended for use with Both R-1234yf and R-134a.” This action would approve and provide technical specifications for MVAC recovery/recycling/recharging equipment so that it may be used for R-1234yf under CAA section 609 and 40 CFR part 82, subpart B.

Incorporation by reference allows Federal agencies to comply with the requirement to publish rules in the *Federal Register* and the Code of Federal Regulations by referring to material already published elsewhere. The legal effect of incorporation by reference is that the material is treated as if it were published in the *Federal Register* and Code of Federal Regulations.

SAE J2843, J2851, and J3030 are available for purchase by mail at: SAE Customer Service, 400 Commonwealth Drive, Warrendale, PA 15096-0001; Telephone: 1-877-606-7323 in the U.S. or Canada (other countries dial 1-724-776-4970); Internet address for SAE J2843: [https://www.sae.org/standards/content/j2843\\_201907](https://www.sae.org/standards/content/j2843_201907); Internet address for SAE J2851: [https://www.sae.org/standards/content/j2851\\_201502](https://www.sae.org/standards/content/j2851_201502); Internet address for SAE J3030: [https://www.sae.org/standards/content/j3030\\_201507](https://www.sae.org/standards/content/j3030_201507). The cost of SAE J2843, SAE J2851, and SAE J3030 is \$83 each for an electronic or hard copy. The cost of obtaining these standards is not a significant financial burden for manufacturers of MVACs or recovery equipment manufacturers and purchase is not required for those selling, installing, or using the refrigerant handling equipment covered by these standards. Therefore, the EPA concludes that SAE J2843, SAE J2851, and SAE J3030 are reasonably available. Also, as noted above, a copy of the standards will be available in hard copy during the public comment period in the Public Reading Room for the Air and Radiation Docket. The EPA requests comment on incorporating by reference these three standards.

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

Additional information about these statutes and Executive Orders can be found at

<https://www.epa.gov/laws-regulations/laws-and-executive-orders>.

### *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 Regulation and Controlling Regulatory Costs*

This action is not expected to be 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 2060-0247. This rule contains no new requirements for reporting or recordkeeping.

### *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. 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 action proposes to adopt and incorporate by reference three technical standards developed by SAE for equipment that recovers, recycles, and/or recharges R-

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1234yf in MVACs.

*E. Unfunded Mandates Reform Act (UMRA)*

This action does not contain any Federal mandates or unfunded mandates 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. It will not have substantial direct effects on tribal governments, on the relationship between the Federal government and Indian tribes, or on the distribution of power and responsibilities between the Federal government and Indian tribes, as specified in Executive Order 13175. Thus, Executive Order 13175 does not apply to this action.

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

This action is not subject to Executive Order 13045 because it is not economically significant as defined in Executive Order 12866, and because the EPA does not believe the environmental health or safety risks addressed by this action present a disproportionate risk to children.

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

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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 for the servicing of MVACs that use R-1234yf. The EPA is proposing to incorporate by reference three industry consensus standards: SAE J2843 “R-1234yf [HFO-1234yf] Recovery/Recycling/Recharging Equipment for Flammable Refrigerants for Mobile Air-Conditioning Systems”; SAE J2851 “Recovery Equipment for Contaminated R-134a or R-1234yf Refrigerant from Mobile Automotive Air Conditioning Systems”; and SAE J3030 “Automotive Refrigerant Recovery/Recycling/Recharging Equipment Intended for use with Both R-1234yf and R-134a.” Specifically, these standards are:

1. *SAE J2843: R-1234yf [HFO-1234yf] Recovery/Recycling/Recharging Equipment for Flammable Refrigerants for Mobile Air-Conditioning Systems (adopted July 2019)*. This standard applies to refrigerant handling equipment intended for use with R-1234yf refrigerant from MVACs only. It establishes requirements for equipment used to recover, recycle, and/or recharge R-1234yf. This standard is available at [https://www.sae.org/standards/content/j2843\\_201907](https://www.sae.org/standards/content/j2843_201907).

2. *SAE J2851: Recovery Equipment for Contaminated R-134a or R-1234yf Refrigerant from Mobile Automotive Air Conditioning Systems (adopted February 2015)*. This standard applies to recovery equipment that removes contaminated R-134a and/or R-1234yf from MVACs. This standard is available at [https://www.sae.org/standards/content/j2851\\_201502](https://www.sae.org/standards/content/j2851_201502).

3. *SAE J3030: Automotive Refrigerant Recovery/Recycling/Recharging Equipment Intended for use with Both R-1234yf and R-134a (adopted July 2015)*. This standard establishes the minimum equipment requirements for recovery/recycling/recharge equipment intended for

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use with both R-1234yf and R-134a in a common refrigerant circuit that has been directly removed from, and is intended for reuse, in MVACs. This standard is available at [https://www.sae.org/standards/content/j3030\\_201507](https://www.sae.org/standards/content/j3030_201507).

These standards may be purchased by mail at: SAE Customer Service, 400 Commonwealth Drive, Warrendale, PA 15096-0001; by telephone: 1-877-606-7323 in the United States or 1-724-776-4970 outside the United States or in Canada. The cost of SAE J2843, SAE J2851, and SAE J3030 is \$81 each for an electronic or hard copy. The cost of obtaining these standards is not a significant financial burden for manufacturers of MVACs and purchase is not required for those selling, installing, or servicing MVACs. Therefore, the EPA concludes that SAE J2843, SAE J2851, and SAE J3030 are reasonably available.

*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). This action proposes to adopt and incorporate by reference three technical standards for equipment that recovers, recycles, and/or recharges R-1234yf in MVACs. The proper use of servicing equipment prevents the intentional release of refrigerant to the environment and decreases the amount of such emissions to which all affected populations are exposed.

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## **Proposed Rule**

### **Protection of the Stratospheric Ozone: Motor Vehicle Air Conditioning System Servicing**

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#### **List of Subjects in 40 CFR Part 82**

Environmental protection, Administrative practice and procedure, Air pollution control, Incorporation by reference, Recycling, Reporting and recordkeeping requirements, Stratospheric ozone layer.

Dated:

Andrew R. Wheeler,  
Administrator.

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For the reasons set out in the preamble, 40 CFR part 82 is amended as follows:

## **PART 82 - PROTECTION OF STRATOSPHERIC OZONE**

1. The authority citation for part 82 continues to read as follows:

**Authority:** 42 U.S.C. 7414, 7601, 7671 - 7671q.

### **Subpart B - Servicing of Motor Vehicle Air Conditioners**

2. Amend §82.32 by revising paragraph (e)(1) to read as follows:

#### **§ 82.32 Definitions**

\*\*\*\*\*

(e) *Properly using.* (1) Properly using means using equipment in conformity with the regulations set forth in this subpart, including but not limited to the prohibitions and required practices set forth in § 82.34, and the recommended service procedures and practices for the containment of refrigerant set forth in appendices A, B, C, D, E, F, and incorporated by reference at § 82.36(a)(8)-(10) of this subpart, as applicable. In addition, this term includes operating the equipment in accordance with the manufacturer's guide to operation and maintenance and using the equipment only for the controlled substance for which the machine is designed. For equipment that extracts and recycles refrigerant, properly using also means to recycle refrigerant before it is returned to a motor vehicle air conditioner or MVAC-like appliance, including to the motor vehicle air conditioner or MVAC-like appliance from which the refrigerant was extracted. For equipment that only recovers refrigerant, properly using includes the requirement to recycle the refrigerant on-site or send the refrigerant off-site for reclamation.

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3. Amend § 82.36 by revising paragraph (a)(7), by adding paragraphs (a)(8), (a)(9), and (a)(10), and by adding a Note following paragraph (a)(10) to read as follows:

### § 82.36 Approved refrigerant handling equipment

(a) \*\*\*

(7) Equipment that recovers but does not recycle refrigerants other than CFC-12, HFC-134a, and HFO-1234yf must meet the standards set forth in Appendix F of this subpart (Recovery Only Equipment that Extracts a Single, Specific Refrigerant Other Than CFC-12, HFC-134a, or HFO-1234yf).

(8) Equipment that recovers and recycles HFO-1234yf refrigerant from MVACs and recharges MVAC systems with HFO-1234yf refrigerant must meet the standards set forth in SAE J2843 (July 2019) (Recovery Equipment for Contaminated R-134a or R-1234yf Refrigerant from Mobile Air Conditioning Systems).

(9) Equipment that recovers but does not recycle contaminated HFC-134a and/or HFO-1234yf refrigerant from MVACs must meet the standards set forth in SAE J2851 (February 2015) (Recovery Equipment for Contaminated R-134a or R-1234yf Refrigerant from Mobile Air Conditioning Systems).

(10) Equipment that recovers, recycles, and recharges both HFO-1234yf and R-134a from MVACs must meet the standards set forth in SAE J3030 (July 2015) (Automotive Refrigerant Recovery/Recycling/Recharging Equipment Intended for Use with Both R-1234yf and R-134a).

**NOTE:** Paragraphs (a)(8), (a)(9), and (a)(10) contain references to certain standards from SAE International. The standards are incorporated by reference, and the referenced sections are made part of the regulations in part 82:

1. SAE J2843. R-1234yf [HFO-1234yf] Recovery/Recycling/Recharging Equipment for Flammable Refrigerants for Mobile Air-Conditioning Systems. July 2019.

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2. SAE J2851. Recovery Equipment for Contaminated R-134a or R-1234yf Refrigerant from Mobile Automotive Air Conditioning Systems. February 2015.
3. SAE J3030. Automotive Refrigerant Recovery/Recycling/Recharging Equipment Intended for Use with Both R-1234yf and R-134a. July 2015.

The Director of the Federal Register approves the incorporation by reference of the material under paragraphs (a)(8)-(10) in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. Copies of SAE J2843, J2851, and J3030 may be purchased by mail at: SAE Customer Service, 400 Commonwealth Drive, Warrendale, PA 15096-0001 USA; E-mail: CustomerService@sae.org; Telephone: 1-877-606-7323 (U.S. and Canada only) or 1-724-776-4970 (outside the U.S. and Canada); Internet address: <http://store.sae.org/dlabout.htm>.

You may inspect a copy at U.S. EPA's Air Docket; EPA West Building, Room 3334; 1301 Constitution Ave., NW.; Washington, DC or at the National Archives and Records Administration (NARA). For questions regarding access to these standards, the telephone number of EPA's Air Docket is 202-566-1742. For information on the availability of this material at NARA, call 202-741-6030, or go to: [http://www.archives.gov/federal\\_register/code\\_of\\_federal\\_regulations/ibr\\_locations.html](http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html).

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4. Amend § 82.38 by revising paragraph (a) to read as follows:

**§ 82.38 Approved independent standards testing organizations**

(a) Any independent standards testing organization may apply for approval by the Administrator to certify equipment as meeting the standards in Appendix A, B, C, D, E, F, and incorporated by reference at § 82.36(a)(8)-(10) of this subpart, as applicable. The application shall be sent to: MVACs Recycling Program Manager, Stratospheric Protection Division

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(6205T), U.S. Environmental Protection Agency, 1200 Pennsylvania Ave., NW., Washington, DC 20460.

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5. Amend § 82.40 by revising paragraph (a)(2)(i) to read as follows:

**§ 82.40 Technician training and certification**

(a) \*\*\*

(2) \*\*\*

(i) The standards established for the service and repair of MVACs and MVAC-like appliances as set forth in appendices A, B, C, D, E, F, and incorporated by reference at § 82.36(a)(8)-(10) of this subpart. These standards relate to the recommended service procedures for the containment of refrigerant, extraction equipment, extraction and recycle equipment, and the standard of purity for refrigerant in motor vehicle air conditioners.

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6. Amend Appendix F to subpart B of part 82 by revising the appendix title to read as follows:

APPENDIX F TO SUBPART B OF PART 82 – STANDARD FOR RECOVER-ONLY EQUIPMENT THAT EXTRACTS A SINGLE, SPECIFIC REFRIGERANT OTHER THAN CFC-12, HFC-134a, OR R-1234yf.

7. Amend Appendix F to subpart B of part 82 by revising the paragraph under the undesignated center heading “Forward” to read as follows:

Foreword

These specifications are for equipment that recovers, but does not recycle, any single, specific automotive refrigerant other than CFC-12, HFC-134a, or HFO-1234yf, including a blend refrigerant.

8. Amend Appendix F to subpart B of part 82 by revising paragraph 1 with the center heading

“Scope to read as follows:

1. Scope

The purpose of this standard is to provide equipment specifications for the recovery of any single, specific refrigerant other than CFC-12, HFC-134a, or HFO-1234yf, including a blend refrigerant, which is either (1) to be returned to a refrigerant reclamation facility that will process the refrigerant to ARI Standard 700-93 or equivalent new product specifications at a minimum, or (2) to be recycled in approved refrigerant recycling equipment, or (3) to be destroyed. This standard applies to equipment used to service automobiles, light trucks, and other vehicles with similar air conditioning systems.

\* \* \* \* \*

9. Amend Appendix F to subpart B of part 82 by revising paragraph 3.1 to read as follows:

3.1 The equipment must be able to extract from a mobile air conditioning system the refrigerant other than CFC-12, HFC-134a, or HFO-1234yf to which the equipment is dedicated.

\* \* \* \* \*

10. Amend Appendix F to subpart B of part 82 by revising the paragraph under the undesignated

center heading “Application” to read as follows:

Application

The purpose of this standard is to provide equipment specifications for the recovery of any

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refrigerant other than CFC-12, HFC-134a, or HFO-1234yf for return to a refrigerant reclamation facility that will process it to ARI Standard 700-93 (or for recycling in other EPA approved recycling equipment, in the event that EPA in the future designates a standard for equipment capable of recycling refrigerants other than CFC-12, HFC-134a, or HFO-1234yf).

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