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The EPA Administrator, Andrew Wheeler, signed the following document on January 11, 2021, 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.

6560-50-P

## **ENVIRONMENTAL PROTECTION AGENCY**

### **40 CFR Part 82**

**[EPA-HQ-OAR-2013-0597; FRL-10014-63-OAR]**

**[RIN 2060-A075]**

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

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

**ACTION:** Final rule

**SUMMARY:** The Environmental Protection Agency (EPA) is adopting 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 rule adopts the most current versions of these standards by incorporating them by reference into the regulations under Title VI of the Clean Air Act (CAA). This will provide additional flexibility for industry stakeholders that wish to select recovery and recycling equipment certified to these standards.

**DATES:** This final rule is effective on **[INSERT DATE 30 DAYS FROM DATE OF PUBLICATION IN THE FEDERAL REGISTER]**, 30 days after publication in the **Federal**

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**Register.** The incorporation by reference of certain publications listed in the rule is approved by the Director of the **Federal Register** as of [INSERT DATE 30 DAYS AFTER PUBLICATION IN THE FEDERAL REGISTER].

**ADDRESSES:** The EPA has established a docket for this action under Docket ID No. EPA-HQ-OAR-2013-0597. 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., 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 electronically through <http://www.regulations.gov>.

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#### **SUPPLEMENTARY INFORMATION:**

##### **Table of Contents**

- I. General Information
  - A. Does this action apply to me?
  - B. What acronyms and abbreviations are used in the preamble?
- II. Background
  - A. CAA section 609
  - B. Major rules under CAA section 609
- III. What is the EPA Finalizing in This Action?
  - A. What are the standards the EPA is adopting?
    - i. SAE J2843
    - ii. SAE J2851
    - iii. SAE J3030
  - B. What is the effect of adopting these standards?
- IV. Incorporation by Reference
- V. Response to Comments

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- A. Support for adoption of the standards
- B. Concerns regarding SAE J3030
- C. Other suggestions and concerns
- VI. Statutory and Executive Order Reviews
  - A. Executive Order 12866: Regulatory Planning and Review and Executive Order 13563: Improving Regulation and Regulatory Review
  - B. Executive Order 13771: Reducing Regulation 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 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, 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

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entities likely to be regulated by this 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 CAA section 609, 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)
ASHRAE	American Society of Heating, Refrigerating and Air-Conditioning Engineers
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
ICCSC	Interior Climate Control Standards Committee
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

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section 609, MVACs<sup>1</sup> are defined as equipment that use mechanical vapor compression 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 (e.g., payment or bartering) may perform any service on an MVAC that involves the refrigerant<sup>2</sup> without properly using approved refrigerant recovery or recovery and recycling equipment, and no such person may perform such service for consideration 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

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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.

<sup>2</sup> Section 609(b)(1) defines the term "refrigerant," "[a]s used in this section", to mean "any class I or class II substance used in a motor vehicle air conditioner. Effective 5 years after November 15, 1990, the term 'refrigerant' shall also include any substitute substance."

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 (40 CFR 82.38); 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 part 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 CAA 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. Consistent with the definition in CAA section 609(b)(1), “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>3</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 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 certify 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 Intertek (formerly 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

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<sup>3</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.

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 (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

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facilities may sell refrigerant recovered from such vehicles to technicians certified under CAA section 609.

Additionally, the 1997 rule established standards for recover/recycle and recovery/recycling/recharging equipment for R-134a; recover-only equipment for R-12, R-134a, and hydrofluoroolefin (HFO)-1234yf or 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/recycling and recovery/recycling/recharging equipment for R-134a refrigerant. Appendix D is based upon 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. Test results from the SAE Improved Mobile Air Conditioning Cooperative Research Project,<sup>4</sup> an MVAC industry sponsored research project, showed that equipment certified to meet SAE J2210 and SAE J1732<sup>5</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

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<sup>4</sup> SAE, Improved Mobile Air Conditioning Cooperative Research Program. <https://www.regulations.gov/document?D=EPA-HQ-OAR-2006-0428-0003> and <https://www.regulations.gov/document?D=EPA-HQ-OAR-2008-0231-0002>.

<sup>5</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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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 Finalizing in This Action?**

The EPA is amending 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 the refrigerant R-1234yf by incorporating them by reference into the CAA section 609 regulations. The standards provide technical specifications for equipment used for servicing MVACs containing R-1234yf consistent with CAA section 609 regulations, codified at 40 CFR part 82, subpart B. The refrigerant 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 pickup trucks, and new complete heavy-duty vans (81 FR 86778; December 1, 2016).

The existing 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. This final rule adds equipment certified to meet SAE J2843, J2851, and J3030 to the equipment approved under CAA section 609 implementing regulations to recover, recycle, and/or recharge the refrigerant R-1234yf for MVACs.

#### *A. What are the standards the EPA is adopting?*

The EPA is adopting the following three equipment standards for the servicing of MVACs that use R-1234yf:

- SAE J2843 (revised July 2019), “R-1234yf [HFO-1234yf]

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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 (ICCSC) consists of five sub-committees: Steering, Service, Fluids, MAC Supplier, and Vehicle OEM. The SAE ICCSC includes representatives from across the MVAC industry, including system component manufacturers, automobile manufacturers, servicing equipment manufacturers, and refrigerant manufacturers. The members of each committee have expertise in that area and are responsible for the development of SAE standards or recommended practice documents. The committee has published more than 50 documents and has an HS-2900 handbook that includes standards on safety, refrigerants, components, testing, service procedures, service equipment, and training. Each of the SAE Ground Vehicle Standards (e.g., SAE J2843, J2851, and J3030) for technical specifications related to MVAC servicing undergoes a rigorous peer review process. The EPA has previously cited some of these standards in regulations.

The three SAE standards that are being adopted and incorporated by reference relate to recycling, recovery, and/or recharging 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

2019 EPA Automotive Trends Report, in the 2018 MY, use of R-1234yf has grown to 13 manufacturers (accounting for more than 60% of the US new vehicle fleet) and some manufacturers have implemented R-1234yf across their entire vehicle brands.<sup>6</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 SAE J2843, J2851, and J3030 will 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 by the American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE) 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 rule also increases industry flexibility in selecting proper recovery, recycling, and recharging equipment by expanding the available options. Adoption of the standards also helps to mitigate 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 SAE J2843, J2851, and J3030 should reduce mixing of refrigerants. Preventing the mixing of refrigerants facilitates refrigerant recycling and reduces releases into the atmosphere. Equipment meeting the three standards are capable of near-complete recovery of refrigerant from such MVACs. Below is further description of each standard.

*i. SAE J2843*

SAE J2843 (revised July 2019) establishes standards for equipment that recovers,

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<sup>6</sup> EPA, 2019. Automotive Trends Report. Available at: <https://www.epa.gov/automotive-trends/download-automotive-trends-report>.

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.

*ii. SAE J2851*

SAE J2851 (revised 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 Refrigerants*. Refrigerant recovery equipment should ensure adequate refrigerant recovery and reduce emissions during the removal of refrigerant from MVACs.

*iii. SAE J3030*

SAE J3030 (revised 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. Equipment certified to J3030 are designed to prevent contamination when switching between refrigerants.

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

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

The EPA's amendments to 40 CFR 82.36 revise paragraph (a)(7), add paragraphs (a)(8), (a)(9), (a)(10), and inserts a note following (a)(10) to add additional options to the list of approved refrigerant handling equipment. These revisions establish that servicing equipment manufactured to meet SAE J2843, J2851, or J3030 that is certified by the EPA (or by an independent standards testing organization approved by the EPA under 40 CFR 82.38) may be used for repairing or servicing MVACs consistent with 40 CFR 82.34(a)(1). The EPA is also amending 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

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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 at: <https://www.epa.gov/mvac/section-609-certified-equipment>.

Lastly, the EPA is amending 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 adding standards for recovery equipment for MVACs containing R-1234yf, the EPA is noting that as appropriate, in this appendix.

Existing EPA regulations that are not modified by this action require stakeholders who chose to service or repair vehicles that use R-1234yf to use certified equipment. Equipment certified to meet SAE J2843, J2851, and J3030 will provide additional flexibility for industry stakeholders and protect human health and the environment. Use of equipment that meets the three 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

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listed by ASHRAE as an A2L refrigerant meaning it is mildly flammable.<sup>7</sup>

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

The EPA is adopting the following three standards by incorporating them by reference—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 Automotive 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.” Section III.A. of this preamble discusses these standards in greater detail. This action approves and provides 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:

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<sup>7</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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[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.

## V. Response to Comments

The EPA received eight comments on the proposed rule from individuals and organizations with various interests in the MVAC industry. Most commenters supported the proposal to adopt SAE J2843, J2851, and J3030 by incorporating them by reference into the regulations implementing CAA section 609. A few commenters also suggested changes the EPA should consider incorporating into the CAA section 609 regulations or requested additional information concerning the three standards. Some of the commenters raised issues that are outside the scope of this rulemaking and the EPA is not providing a specific response to those comments. We have grouped comments together and responded to the issues raised by the commenters in the sections that follow.

### *A. Support for adoption of the standards*

*Comment:* Seven commenters supported the proposal to adopt the three SAE standards. One commenter stated that adopting the standards would reduce the amount of refrigerant currently being used and needed to meet future demand. One commenter stated that adopting the standards would establish clear guidance for the automotive repair sector to ensure

the equipment and procedures being used effectively support the overall goal of reducing the global warming impact of air conditioning. Another commenter stated that having proper equipment, usage/handling of the materials/vapors, and being certified to use the equipment is paramount to environmental protection.

*Response:* EPA acknowledges the comments and is adopting the three standards as proposed.

*B. Concerns regarding SAE J3030*

*Comment:* One commenter expressed support for the adoption of SAE J2843 and J2851, but objected to the adoption of SAE J3030, which covers R-134a and R-1234yf dual refrigerant equipment. The commenter stated that by allowing machines to service both R-134a and R-1234yf MVACs there is potential for misuse and refrigerant cross-contamination, which would be problematic for service providers, consumers, original equipment manufacturers (OEMs), and reclaimers due to flammability concerns. The commenter also stated that any environmental benefit from the use of a lower global warming potential (GWP) refrigerant and carbon dioxide (CO<sub>2</sub>)-equivalent credits<sup>8</sup> generated by OEMs for mileage allowance from the transition to R-1234yf will be lost if R-134a is used to service R-1234yf MVACs. Additionally, the commenter also stated that the value of the refrigerant for recovery, recycling, and recharging would be lost as it would be impossible to separate the refrigerants from one another.

*Response:* The EPA acknowledges the commenter's support for the adoption of SAE J2843 and J2851. With regard to the commenter's concerns regarding SAE J3030, the EPA does not agree that the use of equipment certified to meet SAE J3030 would result in cross-

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<sup>8</sup> CO<sub>2</sub> equivalence (CO<sub>2</sub>e) expresses the global warming potential of a greenhouse gas (for A/C, hydrofluorocarbons) by normalizing that potency to CO<sub>2</sub>'s. Thus, the maximum A/C credit for direct emissions is the equivalent of 18.8 grams/mile of CO<sub>2</sub> for cars.

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contamination of MVACs. SAE J3030 was developed to prevent the misuse and tampering of servicing equipment, the mixing of R-134a and R-1234yf, and the contamination of MVACs by technicians while a significant number of vehicles with R-134a are in use and R-1234yf is being used in an increasing number of new motor vehicles. A similar standard was developed to certify equipment intended for use with both R-12 to R-134a MVACs in 1995: *SAE J1770, Automotive Refrigerant Recovery/Recycling Equipment Intended for use With Both R12 and R134a (Cancelled November 2010)*. SAE J1770 established specific minimum equipment requirements for recovery/recycling equipment intended for use with both R-12 and R-134a in a common refrigerant circuit that had been directly removed from and intended for reuse in MVACs. We have no information suggesting that proper use of equipment certified to SAE J1770 led to any increase in emissions of R-12 or R-134a. Based on our experience with SAE J1770, we are confident that proper use of equipment certified to SAE J3030 also will not lead to any increase in emissions of R-134a.

The EPA acknowledges the potential safety hazards, flammability risks, and potential for cross-contamination when multiple refrigerants are used to service MVACs. The agency also acknowledges the potential loss of environmental benefits if a refrigerant other than the one for which the vehicle is designed is used to service the system. However, incorporating SAE J3030 by reference does not alter the regulatory requirements governing which refrigerants can be used for servicing. Instead, as explained below, SAE J3030 was specifically designed to minimize cross contamination and thus preserve environmental benefits. The commenter's concern about a potential loss of CO<sub>2e</sub> credits is also misplaced. Under EPA's light-duty Greenhouse Gas (GHG) standards for MY 2017-2025, vehicle manufacturers may generate credits toward compliance with the CO<sub>2e</sub> GHG emission standards, both for improving the efficiency of MVACs and for

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reducing MVAC HFC emissions by reducing leakage or using alternative, lower-GWP refrigerants. (see 40 CFR 86.1865-12 and 1867-12). Any credits a manufacturer may generate at the time of vehicle production based on the use of a specific MVAC refrigerant are not affected by actions taken later at facilities servicing those vehicles. However, the expected GHG emission reductions from the GHG program can only be achieved if the proper refrigerant is used throughout the useful life of the vehicles, so avoiding cross contamination of the servicing equipment maintains the intended benefits of the GHG program when vehicle MVAC systems are recharged.

SAE J3030 was developed to mitigate potential risks and concerns by establishing equipment specifications and testing procedures for certifying laboratories to ensure that equipment does not cross contaminate refrigerant above specified limits when used under normal operating conditions. For example, as discussed in section 3.3 of the standard, equipment certified to SAE J3030 “must meet all feature content and functional requirements of both SAE J2788 for R-134a and SAE J2843 for R-1234yf and pass all test requirements of these standards. In addition, it must pass a changeover test to determine that any refrigerant cross-contamination is within the limits of this standard.” Additionally, section 4.1.1 of the standard describes the requirement for SAE J3030-certified equipment to have “an electronically-controlled electro-mechanical lockout to permit the recovery, recycle, recharge sequence of either R-1234yf or R-134a. If [the equipment determines that the MVAC system] does not contain R-1234yf or R-134a in the required purity, it shall not permit refrigerant recovery.” For these reasons, we conclude that proper use of equipment certified to SAE J3030 is not related to GHG credits generated by auto manufacturers and will not lead to a loss in either the expected environmental benefits of the GHG program or CO<sub>2</sub>e credits.

*C. Other suggestions and concerns*

*Comment:* One commenter noted a technical error in the title of SAE J2843 in the proposed regulatory text at 40 CFR 82.36(a)(8).

*Response:* The EPA appreciates this comment and has corrected the title of SAE J2843 in the final rule.

*Comment:* One commenter would like to see more enforcement of the CAA 609 regulations as they pertain to technicians and service shop owners. The commenter requested that the EPA require that all certified AC shops have their technicians certified under the ASE Refrigerant Recovery and Recycling Program and provide proof when applying for their business license. The commenter also requested that the EPA require that proper storage procedures are in place for refrigerants. Additionally, the commenter voiced concern about the cost to service centers that would need to purchase new equipment.

*Response:* The EPA acknowledges the commenter's suggestions. Comments concerning enforcement, technician certification, and refrigerant storage procedures are beyond the scope of this rulemaking and thus no response to comments on those topics is required. In this action, the EPA is solely adopting by incorporating by reference the three existing SAE standards that include guidelines and requirements for equipment designed to service R-1234yf MVACs. The EPA did not propose and is not requiring in this final rule that service shops service R-1234yf MVACs. Prior to the issuance of this final rule, there was and continues to be certified equipment that can be used by service shops that choose to service MVACs with R-1234yf and do not wish to use equipment that meets the standards EPA is adopting. This rule provides additional flexibility to service shops by expanding the universe of equipment that may be certified for use by technicians. As such, it does not impose costs on service shops. With regards

to the commenter's proposal that the EPA require technicians to be certified under the ASE Refrigerant Recovery and Recycling Program, as noted above, the EPA did not propose and is not making any changes to the technician certification requirements in this final rule; EPA's existing regulations currently require that all technicians who repair or service MVACs for consideration be trained and certified by one of the EPA-approved technician training and certification programs, which are listed at <https://www.epa.gov/mvac/section-609-technician-training-and-certification-programs>.

*Comment:* One commenter inquired about studies regarding efficiency of the standards, impacts of the standards for vehicle manufacturers and service centers, and the environmental benefits of recycling versus discarding R-1234yf.

*Response:* With regard to the question regarding efficiency of the standards, we assume the commenter is asking about the efficiency rate achieved by the standards. As discussed above in section II.B of this rule, SAE J2843 includes requirements established in SAE J2788 that should result in an efficient 95% refrigerant recovery rate during MVAC servicing. Research showed that equipment certified to meet SAE J2210 and SAE J1732<sup>9</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. Regarding impacts on vehicle manufacturers and service centers, this action is intended to provide additional flexibility for industry stakeholders that wish to select recovery and recycling equipment certified to the three SAE standards. This action should not affect vehicle manufacturers and does not require the purchase of R-1234yf MVAC servicing equipment.

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<sup>9</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)).

Instead it adopts existing SAE standards that include guidelines and requirements for equipment designed to service R-1234yf MVACs safely and efficiently. Regarding the question about the benefits of recycling versus discarding R-1234yf, the EPA did not propose and is neither requiring nor prohibiting either destruction or recycling of R-1234yf in this final rule, and thus this issue is not relevant to this rulemaking. Destruction of the refrigerant remains a viable option for service shops (e.g., service shops could recover and send for destruction the refrigerant if so desired). Under CAA section 609, all refrigerant, including R-1234yf, must be properly recycled or reclaimed before it can be reused, even if it is being returned to the vehicle from which it was removed. We understand that most service shops today choose to recover and either recycle or send for reclamation MVAC refrigerants. Additionally, CAA section 608 and its implementing regulations prohibit knowingly venting or otherwise knowingly releasing or disposing of refrigerants such as R-1234yf when maintaining, servicing, repairing, or disposing of air conditioning or refrigeration equipment, including MVACs. When an MVAC system enters the waste stream, the final person in the disposal chain must recover the refrigerant, or verify using a signed statement or contract that the refrigerant has been recovered, prior to disposal. Additional information and requirements regarding safe disposal is available at <https://www.epa.gov/section608/stationary-refrigeration-safe-disposal-requirements>.

*Comment:* One commenter requested that the EPA rely more on the International Laboratory Accreditation Cooperation accreditation framework for assessments, monitoring, and granting accreditations. The commenter further requested that the EPA collaborate with DOC/NIST/Standards Coordination Office in order to provide consistent guidance.

*Response:* The EPA also acknowledges the commenter's additional suggestions; however, they are outside the scope of this rulemaking, so no response is required.

*Comment:* One commenter expressed support for adoption of the three standards and stated that they are appropriate in that they help ensure the efficacy of MVAC refrigerant recycling equipment. The commenter, however, stated that the EPA does not have authority under CAA section 609 to mandate the purchase and use of R-1234yf servicing equipment and strongly objected to any mandate that requires the purchase and use of R-1234yf MVAC servicing equipment by dealerships because “R-1234yf is not an [ozone-depleting substance (ODS)].” The commenter also objected to the proposed changes to the definition of “properly using” that they asserted would require the use of R-1234yf MVAC servicing equipment in conformity with the regulations at 40 CFR part 82, subpart B. The commenter asserted that the rule “lacks both a sufficient legal basis and any plausible cost/benefit justification” and that market-based decisions alone should be considered.

*Response:* The EPA acknowledges the commenter’s support for the adoption of the three standards. In this action, the EPA is adopting and incorporating by reference the three existing SAE standards to provide additional flexibility for stakeholders who wish to select recovery and recycling equipment certified to the three standards. The EPA did not propose and is not mandating in this final rule that any person or dealership that services vehicles use R-1234yf or purchase or use R-1234yf MVAC servicing equipment. The commenter’s assertion that the EPA does not have authority to mandate the purchase and use of R-1234yf MVAC servicing equipment is thus not relevant to this action and requires no further response. CAA section 609 gives the EPA authority to promulgate regulations establishing standards and requirements regarding the servicing and repair of MVAC and this action is taken pursuant to that authority.<sup>10</sup>

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<sup>10</sup> The commenter also referenced a final rule published under CAA section 608 (85 FR 14150, March 11, 2020). EPA notes that the March 2020 final rule issued by the agency’s National Recycling and Emission Reduction

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For service shops that choose to service MVACs, including R-1234yf MVACs, the regulations requiring technicians to use certified equipment prior to service or repair have been in place since 1992 (57 FR 31242; July 14, 1992). As mentioned above in section II.B, the regulations issued in 1992 under CAA section 609, codified at 40 CFR part 82, subpart B, include, among other things, a definition of “refrigerant” that includes any class I or class II substance used in an MVAC, as well as any substitute substance effective November 15, 1995 (40 CFR 82.32(f)); 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 (40 CFR 82.38); 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). The EPA has neither reopened nor requested comment on these requirements, approval processes, and definition . This action does not alter the requirement to comply with the provisions in 40 CFR part 82, subpart B. Instead, it expands the types of equipment that can be certified to service vehicles that use R-1234yf. As such, this action provides a benefit to stakeholders by expanding the options available to and providing additional flexibility for stakeholders that choose to service vehicles that use R-1234yf. Because this action does not impose additional requirements but instead provides additional options to stakeholders, there are no compliance costs associated with this action and the commenter’s implicit suggestion that the benefits don’t justify the costs is thus misplaced. Additionally, the EPA interprets the comment regarding market-based decisions to mean that the market alone should dictate

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Program is focused on refrigerant management requirements and the scope of EPA’s authority under CAA section 608, which is a distinct statutory provision from CAA section 609.

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whether service shops purchase and use R-1234yf MVAC servicing equipment, rather than a legal mandate. As mentioned earlier, the EPA did not propose and is not mandating in this final rule that any person or dealership that services vehicles use R-1234yf or purchase or use R-1234yf MVAC servicing equipment. Rather, existing EPA regulations that are not modified by this action already require stakeholders who chose to service or repair vehicles that use R-1234yf to use certified equipment.

Regarding the definition of “properly using” at 40 CFR 82.32(e), this final rule updates the definition of properly using to add the three standards being 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. As mentioned above, the agency is not mandating in this final rule that service shops purchase or use R-1234yf MVAC servicing equipment.

## **VI. 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 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

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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 adopts and incorporates by reference three existing technical standards developed by SAE for equipment that recovers, recycles, and/or recharges R-1234yf in MVACs. We have therefore concluded that this action will have no net regulatory burden for all directly regulated small entities.

*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*

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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. The EPA has not conducted a separate analysis of risks to infants and children associated with this final rule.

*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 for the servicing of MVACs that use R-1234yf. The EPA is incorporating 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

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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 (revised 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 (revised 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 (revised July 2015)*. This standard establishes the minimum equipment requirements for recovery/recycling/recharging equipment intended for 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

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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*

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 adopts 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.

*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).

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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.

Andrew 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. Add § 82.31 to read as follows:

#### **§ 82.31 Incorporation by reference.**

(a) Certain material is incorporated by reference into this subpart part with the approval of the Director of the Federal Register under 5 U.S.C. 552(a) and 1 CFR part 51. You can obtain the material from the sources listed below. You may inspect a copy of the approved material at U.S. EPA's Air and Radiation Docket; EPA West Building, Room 3334, 1301 Constitution Ave. NW., Washington, DC, or at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, email [fedreg.legal@nara.gov](mailto:fedreg.legal@nara.gov) or go to [www.archives.gov/federal-register/cfr/ibr-locations.html](http://www.archives.gov/federal-register/cfr/ibr-locations.html).

(b) SAE International. SAE Customer Service, 400 Commonwealth Drive, Warrendale, PA 15096-0001 USA; E-mail: [CustomerService@sae.org](mailto: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>.

(1) SAE J2843™. R-1234yf (HFO-1234yf) Recovery/Recycling/Recharging Equipment for Flammable Refrigerants for Mobile Air-Conditioning Systems. Revised July 2019; IBR approved for § 82.36(a).

(2) SAE J2851. Recovery Equipment for Contaminated R-134a or R-1234yf Refrigerant from Mobile Automotive Air Conditioning Systems. Revised February 2015; IBR approved for §

82.36(a).

(3) SAE J3030. Automotive Refrigerant Recovery/Recycling/Recharging Equipment Intended for use with Both R-1234yf and R-134a. Issued July 2015 (note: SAE J3030 heading says “revised”); IBR approved for § 82.36(a).

3. 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 § 82.36(a) and appendices A, B, C, D, E and F to 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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4. Amend § 82.36 by revising paragraph (a)(7) and by adding paragraphs (a)(8) through (10) to read as follows:

**§ 82.36 Approved refrigerant handling equipment.**

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(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 (Recover-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 (incorporated by reference, see § 82.31).

(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 (incorporated by reference, see § 82.31).

(10) Equipment that recovers, recycles, and recharges both HFO-1234yf and R-134a from MVACs must meet the standards set forth in SAE J3030 (incorporated by reference, see § 82.31).

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5. 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 § 82.36(a) and appendices A, B, C, D, E and F to this subpart, as applicable. The application shall be sent to: MVACs Recycling Program Manager, Stratospheric Protection Division (6205T), U.S. Environmental Protection Agency, 1200 Pennsylvania Ave., NW., Washington, DC 20460.

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6. 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 § 82.36(a) and appendices A, B, C, D, E and F to 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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7. Amend Appendix F to subpart B of part 82 by revising the appendix heading, the “Foreword” section, sections 1 and 3.1, and the “Application” section 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.**

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.

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,

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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.

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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.

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#### Application

The purpose of this standard is to provide equipment specifications for the recovery of any refrigerant other than CFC-12, HFC-134a, or HFO-1234yf for return to a refrigerant reclamation facility that will process it to AHRI Standard 700 (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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