



ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 82

[EPA-HQ-OAR-2017-0629; FRL-10006-10-OAR]

RIN 2060-AT81

Protection of Stratospheric Ozone: Revisions to the Refrigerant Management Program's Extension to Substitutes

AGENCY: Environmental Protection Agency (EPA).

ACTION: Final rule.

SUMMARY: The Clean Air Act prohibits knowingly venting or releasing ozone-depleting and substitute refrigerants in the course of maintaining, servicing, repairing, or disposing of appliances or industrial process refrigeration. In 2016, the EPA amended the regulatory refrigerant management requirements and extended requirements that previously applied only to refrigerants containing an ozone-depleting substance to substitute refrigerants that are subject to the venting prohibition (i.e., those that have not been exempted from that prohibition) such as hydrofluorocarbons. Based on changes to the legal interpretation that supported that 2016 rule, this action revises some of those requirements – specifically, the appliance maintenance and leak repair provisions – so they apply only to equipment using refrigerant containing an ozone-depleting substance.

DATES: This final rule is effective on **[insert date 30 days after date of publication in the Federal Register]**.

ADDRESSES: The EPA has established a docket for this action under Docket ID No. EPA-HQ-OAR-2017-0629. All documents in the docket are listed on the www.regulations.gov website.

Although listed in the index, some information is not publicly available, e.g., confidential business information 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. All other publicly available docket materials are available electronically through www.regulations.gov.

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<https://www.epa.gov/section608>.

SUPPLEMENTARY INFORMATION:

I. General Information

A. What Is the National Recycling and Emission Reduction Program?

Section 608 of the Clean Air Act (CAA), titled “National Recycling and Emission Reduction Program,” has three main components. First, section 608(a) requires the EPA to establish standards and requirements regarding the use and disposal of class I and class II substances.¹ The second component, section 608(b), requires that the regulations issued pursuant to subsection (a) contain requirements for the safe disposal of class I and class II substances. The third component, section 608(c), prohibits the knowing venting, release, or disposal of ODS refrigerants² and their substitutes³ in the course of maintaining, servicing, repairing, or disposing

¹ A class I or class II substance is an ozone-depleting substance (ODS) listed at 40 CFR part 82, subpart A, appendix A or appendix B, respectively. This document refers to class I and class II substances collectively as ozone-depleting substances, or ODS.

² The term “ODS refrigerant” as used in this document refers to any refrigerant or refrigerant blend in which one or more of the components is a class I or class II substance.

³ The term “substitute” is defined at §82.152.

of appliances or industrial process refrigeration (IPR). The EPA refers to this third component as the “venting prohibition.” Section 608(c)(1) establishes the venting prohibition for ODS refrigerants effective July 1, 1992, and it includes an exemption from this prohibition for “[d]e minimis releases associated with good faith attempts to recapture and recycle or safely dispose” any such substance. Section 608(c)(2) extends 608(c)(1) to substitute refrigerants, effective November 15, 1995. Section 608(c)(2) also includes a provision that allows the Administrator to exempt a substitute refrigerant from the venting prohibition if he or she determines that such venting, release, or disposal of a substitute refrigerant “does not pose a threat to the environment.”⁴

The EPA first issued regulations under section 608 of the CAA on May 14, 1993 (58 FR 28660, “1993 Rule”), to establish the national refrigerant management program for ODS refrigerants recovered during the service, repair, or disposal of air-conditioning and refrigeration appliances. The 1993 Rule required that persons servicing air-conditioning and refrigeration equipment containing ODS refrigerants observe certain practices that reduce emissions. It established requirements for refrigerant recovery equipment, reclaimer certification, and technician certification, and also restricted the sale of ODS refrigerant so that only certified technicians could purchase it. In addition, the 1993 Rule required that ODS be removed from appliances prior to disposal, and that all air-conditioning and refrigeration equipment using an ODS be provided with a servicing aperture or process stub to facilitate refrigerant recovery. The 1993 Rule also established a requirement to repair leaking appliances containing more than 50

⁴ The EPA is using the term “non-exempt substitute” in this document to refer to substitute refrigerants that have not been exempted from the venting prohibition under CAA section 608(c)(2) and §82.154(a) in the relevant end-use. Similarly, the term “exempt substitute” refers to a substitute refrigerant that has been exempted from the venting prohibition under section 608(c)(2) and §82.154(a) in the relevant end-use. A few exempt substitutes have been exempted from the venting prohibition in all end-uses.

pounds of ODS refrigerant. The rule set an annual leak rate of 35 percent for commercial refrigeration appliances and IPR and 15 percent for comfort cooling appliances. If the applicable leak rate is exceeded, the appliance must be repaired within 30 days. Further, consistent with CAA section 608(c)(1), the 1993 Rule included a regulatory provision prohibiting the knowing venting or release of ODS refrigerant by any person maintaining, servicing, repairing, or disposing of an appliance. (58 FR 28714; 40 CFR 82.154(a) (1993)). It also provided that such releases would be considered *de minimis*, and therefore not subject to the prohibition, if they occurred when certain regulatory requirements were followed. (40 CFR 82.154(a) (1993)).

The EPA revised these regulations, which are found at 40 CFR part 82, subpart F (“subpart F”), through subsequent rulemakings published on August 19, 1994 (59 FR 42950), November 9, 1994 (59 FR 55912), August 8, 1995 (60 FR 40420), July 24, 2003 (68 FR 43786), March 12, 2004 (69 FR 11946), January 11, 2005 (70 FR 1972), April 13, 2005 (70 FR 19273), May 23, 2014 (79 FR 29682), April 10, 2015 (80 FR 19453), and November 18, 2016 (81 FR 82272).

In the April 2005 rulemaking, the EPA revised the regulatory venting prohibition in §82.154, so that it also applied to non-exempt substitute refrigerants, and included such substitutes in the regulatory provision implementing the *de minimis* exemption, so that it exempted “*de minimis* releases associated with good faith attempts to recycle or recover refrigerants or non-exempt substitutes” from the prohibition. (70 FR 19278). However, in contrast to how these regulations applied to ODS refrigerants, they did not provide that releases of non-exempt substitute refrigerants would be considered *de minimis* if certain regulatory requirements were followed.

Additionally, the 2004 and 2005 rules exempted certain substitute refrigerants from the venting prohibition either in specific end uses or in all end uses. (*See* 69 FR 11953-11954; 70 FR 19278; §82.154(a) (2005)). The EPA has periodically updated this list of exemptions from the venting prohibition in the regulations at §82.154(a) since 2005. The EPA also issued proposed rules to revise the regulations in subpart F on June 11, 1998 (63 FR 32044), elements of which were not finalized, and on December 15, 2010 (75 FR 78558), no elements of which were finalized. A more detailed history of these regulatory updates can be found at 81 FR 82275.

On November 18, 2016, the EPA published a rule updating existing refrigerant management requirements and extending the full set of the subpart F refrigerant management requirements, which prior to that rule applied only to ODS refrigerants,⁵ to non-exempt substitute refrigerants, such as hydrofluorocarbons (HFCs) and hydrofluoroolefins (HFOs) (81 FR 82272, “2016 Rule”). The 2016 Rule also clarified how regulated entities could avail themselves of the *de minimis* exemption for non-exempt substitutes. (*See, e.g.*, 81 FR 82283-82285). Among the subpart F requirements extended to non-exempt substitute refrigerants in the 2016 Rule were provisions that restrict the servicing of appliances and the sale of refrigerant to certified technicians, specify the proper evacuation levels before opening an appliance, require the use of certified refrigerant recovery and/or recycling equipment, require that refrigerant be removed from appliances prior to disposal, require that appliances have a servicing aperture or process stub to facilitate refrigerant recovery, require that refrigerant reclaimers be certified to reclaim and sell used refrigerant, and establish standards for technician certification programs, recovery equipment, and quality of reclaimed refrigerant. The 2016 Rule also extended the appliance maintenance and leak repair provisions, currently codified at §82.157, to appliances

⁵ The only subpart F requirements that applied to substitute refrigerants prior to the 2016 Rule were the venting prohibition and certain exemptions from that prohibition, as set forth in §82.154(a).

that contain 50 or more pounds of non-exempt substitute refrigerant. For ease of reference, in this document the EPA uses the terms “leak repair provisions” or “leak repair requirements” interchangeably to refer to all of the provisions at §82.157. Included in these leak repair provisions are requirements to conduct leak rate calculations when refrigerant is added to an appliance, repair an appliance that leaks above the threshold leak rate applicable to that type of appliance, conduct verification tests on repairs, conduct periodic leak inspections on appliances that have exceeded the threshold leak rate, report to the EPA on chronically leaking appliances, retrofit or retire appliances that are not repaired, and maintain related documentation to verify compliance. The regulatory changes in the 2016 Rule became effective on January 1, 2017, but the revisions to the leak repair provisions had a compliance date of January 1, 2019 to allow time for the regulated community to prepare for those changes. (81 FR 82343). The 2016 Rule additionally made numerous revisions to improve the efficacy of the refrigerant management program as a whole, such as revisions of regulatory provisions for increased clarity and readability, and removal of provisions that had become obsolete.

Two industry coalitions, the National Environmental Development Association’s Clean Air Project (NEDA/CAP) and the Air Permitting Forum (APF), filed petitions for judicial review of the 2016 Rule in the U.S. Court of Appeals for the District of Columbia Circuit (D.C. Circuit), and the cases have been consolidated. (*See NEDA/CAP v. EPA*, No. 17-1016 (D.C. Cir. filed January 17, 2017); *APF v. EPA*, No. 17-1017 (D.C. Cir. filed January 17, 2017)). The Chemours Company, Honeywell International Inc., the Natural Resources Defense Council, and the Alliance for Responsible Atmospheric Policy are participating as intervenor-respondents in that litigation, in support of the 2016 Rule. In addition, APF has filed a petition with the EPA for administrative reconsideration of the 2016 Rule. The petition for reconsideration is available in

the docket for this action and raises several issues regarding changes made in the 2016 Rule, such as the EPA’s statutory authority for its decision in the 2016 Rule to expand the scope of the refrigerant management requirements – including, but not limited to, leak repair requirements – to cover non-exempt substitute refrigerants. Honeywell International Inc. submitted a document styled as a response to APF’s petition for reconsideration, which is also available in the docket for this action.

B. Does This Action Apply to Me?

Categories and entities potentially affected by this action include those who own or operate refrigeration and air-conditioning appliances. Potentially affected entities include, but are not limited to, the following:

TABLE 1—POTENTIALLY AFFECTED ENTITIES		
Category	North American industry classification system (NAICS) code	Examples of regulated entities
Industrial Process Refrigeration (IPR)	111, 11251, 11511, 21111, 2211, 2212, 2213, 311, 3121, 3221, 3222, 32311, 32411, 3251, 32512, 3252, 3253, 32541, 3256, 3259, 3261, 3262, 3324, 3328, 33324, 33341, 33361, 3341, 3344, 3345, 3346, 3364, 33911, 339999.	Owners or operators of refrigeration equipment used in agriculture and crop production, oil and gas extraction, ice rinks, and the manufacture of frozen food, dairy products, food and beverages, ice, petrochemicals, chemicals, machinery, medical equipment, plastics, paper, and electronics
Commercial Refrigeration	42374, 42393, 42399, 4242, 4244, 42459, 42469, 42481, 42493, 4451, 4452, 45291, 48422, 4885, 4931, 49312, 72231.	Owners or operators of refrigerated warehousing and storage facilities, supermarkets, grocery stores, warehouse clubs, supercenters, convenience stores, and refrigerated transport
Comfort Cooling	45211, 45299, 453998, 512, 522, 524, 531, 5417, 551, 561, 6111, 6112, 6113, 61151, 622, 7121, 71394, 721, 722, 813, 92.	Owners or operators of air-conditioning equipment used in the following: hospitals, office buildings, colleges and universities, metropolitan transit authorities, real estate rental & leased properties, lodging and food services, property management, schools, and public administration or other public institutions

This list is not intended to be exhaustive, but rather to provide a guide for readers regarding entities likely to be affected by this action. To determine whether your facility, company, business, or organization could be affected by this action, you should carefully examine the regulations at 40 CFR part 82, subpart F and the revisions below. 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.

C. What Action Is the Agency Taking?

The EPA reviewed the 2016 Rule, focusing in particular on whether the agency had the statutory authority to extend the full set of subpart F refrigerant management regulations to non-exempt substitute refrigerants, such as HFCs and HFOs. Based on that review, Administrator Pruitt signed a letter on August 10, 2017 stating that the EPA is “planning to issue a proposed rule to revisit aspects of the 2016 Rule’s extension of the 40 CFR part 82, subpart F refrigerant management requirements to non-exempt substitutes.”⁶ Consistent with that letter, in 2018 the agency proposed to withdraw the extension of the provisions at §82.157 to appliances using only non-exempt substitute refrigerants.⁷ (83 FR 43922). As discussed above, these provisions include requirements related to appliance maintenance and leak repair. This action finalizes that proposed withdrawal and will relieve businesses from having to repair leaks, conduct leak inspections, and keep records for appliances containing only substitute refrigerant.

The 2018 proposal also requested comment on whether to withdraw the 2016 Rule’s extension of the full set of subpart F provisions to non-exempt substitute refrigerants. Subpart F

⁶ Letter from the EPA to National Environmental Development Association’s Clean Air Project and the Air Permitting Forum (Aug. 10, 2017), *available at* www.epa.gov/sites/production/files/2017-08/documents/608_update_letter.pdf and in the docket to this rule.

⁷ Ozone-depleting refrigerants and appliances that contain or use any amount of ODS continue to be subject to all applicable subpart F requirements, including those in §82.157.

includes provisions that restrict the servicing of appliances and the sale of refrigerant to certified technicians, specify the proper evacuation levels before opening an appliance, require the use of certified refrigerant recovery and/or recycling equipment, require that refrigerant be removed from appliances prior to disposal, require that appliances have a servicing aperture or process stub to facilitate refrigerant recovery, require that refrigerant reclaimers be certified to reclaim and sell used refrigerant, and establish standards for technician certification programs, recovery equipment, and quality of reclaimed refrigerant (40 CFR part 82, subpart F). In this action the EPA is not making any changes to the subpart F provisions other than (1) limiting the applicability of the leak repair provisions in §82.157 to appliances that use ODS refrigerants or a blend containing ODS refrigerants and (2) correspondingly clarifying that the reference to §82.157 in §82.154(a)(2)(i) (the regulatory provision implementing the *de minimis* exemption to the venting prohibition) only applies for appliances that contain ODS refrigerants (including in a blend). Consistent with the proposal, this action does not change any of the regulatory requirements for ODS in 40 CFR part 82, subpart F.

D. What Is the Agency's Authority for Taking this Action?

This action is based on changes to a legal interpretation of the EPA's authority under CAA section 608 that supported the extension of the leak repair requirements at §82.157 to non-exempt substitute refrigerants in the 2016 Rule. As described in greater detail in Section II below, the EPA concludes that, as a legal matter, the 2016 Rule's extension of the leak repair requirements to non-exempt substitute refrigerants exceeded the EPA's statutory authority under CAA section 608. Accordingly, the EPA is rescinding the 2016 Rule's extension of the leak repair requirements to non-exempt substitutes. However, the EPA continues to interpret section 608 as providing the agency some authority to regulate substitutes. That includes authority to

issue regulations that interpret, explain, and enforce the venting prohibition and the *de minimis* exemption under section 608(c) or that are necessary to fulfill the purposes set forth in section 608(a)(3) (i.e., to reduce the use and emission of ODS to the lowest achievable level or to maximize the recapture and recycling of ODS). Because the extension of the non-leak repair provisions in subpart F to non-exempt substitute refrigerants remains within the scope of the EPA's authority under 608 under the revised statutory interpretation described in this action, the extension of those requirements is not being rescinded.

E. What Are the Incremental Costs and Benefits of this Action?

Although this action is based on changes in the EPA's statutory interpretation, the agency is providing a summary of incremental costs and benefits associated with this action for purposes of transparency and public information. Using a 7% discount rate, agency analyses indicate that rescinding the extension of the leak repair provisions to non-exempt substitutes reduces the burden associated with the 2016 Rule by approximately \$39 million per year. The EPA also estimates this rule will increase the need to purchase non-exempt substitute refrigerant for leaking appliances, at an overall cost of approximately \$15 million per year. Thus, incremental compliance savings and increased refrigerant costs combined are estimated to be a reduction of at least \$24 million per year. These estimates are somewhat lower if a 3% discount rate is used. The EPA estimates that this action will result in forgone annual greenhouse gas (GHG) emissions reductions benefits of about 3 million metric tons of carbon dioxide equivalent (MMTCO_{2e}). This rule will not result in an increase in ODS emissions.

Table 2 presents a summary of the annual costs, forgone emission reductions, and benefits associated with rescinding the extension of the leak repair provisions to non-exempt substitutes, using a 7% or a 3% discount rate, respectively.

TABLE 2 – ANNUAL COSTS AND BENEFITS		
	Rescinding extension of leak repair provisions to non-exempt substitutes	
	7% Discount Rate	3% Discount Rate
Cost Savings (Burden Reduction)	\$38,958,000	\$35,264,000
Total Cost (Refrigerant Replacement)	-\$14,874,000	-\$14,874,000
Net Cost Savings	\$24,084,000	\$20,390,000
Forgone Emissions Reductions (non-monetized disbenefit)	2.946 MMTCO ₂ e	2.946 MMTCO ₂ e

Additional discussion of these analyses can be found in Section III of this document and in the *Analysis of the Economic Impact of the Proposed 2018 Revisions to the National Recycling and Emission Reduction Program* in the docket.

II. The Final Rule

A. Legal Background and the 2016 Rule

This action results from the EPA’s decision to revisit aspects of the 2016 Rule’s extension of the 40 CFR part 82, subpart F refrigerant management requirements to non-exempt substitutes. That process resulted in changes to the legal interpretation supporting the 2016 Rule, which are reflected in this action. For context, we begin by summarizing the key statutory provisions and the EPA’s view of its legal authority as presented in the 2016 Rule. The discussion of the EPA’s statutory authority to extend refrigerant management requirements to non-exempt substitute refrigerants in the 2016 Rule focused primarily on CAA section 608, especially on sections 608(c) and 608(a). (*See generally* 81 FR 82284-82288).

Section 608(a) requires the EPA to establish standards and requirements regarding the use and disposal of class I and class II substances. With regard to refrigerants, under sections 608(a)(1) and 608(a)(2), the EPA is required to promulgate regulations establishing standards and requirements for the use and disposal of class I and class II substances, respectively, during

the service, repair, or disposal of air-conditioning and refrigeration appliances and IPR.⁸ Section 608(a)(3) provides that regulations under section 608(a) are to include requirements to reduce the use and emission of ODS to the lowest achievable level, and to maximize the recapture and recycling of such substances. Section 608(a)(3) further provides that “[s]uch regulations may include requirements to use alternative substances (including substances which are not class I or class II substances) or to minimize use of class I or class II substances, or to promote the use of safe alternatives pursuant to section [612] or any combination of the foregoing.”⁹

Section 608(c) establishes a self-effectuating prohibition, commonly called the “venting prohibition.”¹⁰ Section 608(c)(1), effective July 1, 1992, makes it unlawful for any person, in the course of maintaining, servicing, repairing, or disposing of an appliance or IPR to knowingly vent, release, or dispose of any ODS used as a refrigerant in such equipment in a manner that permits that substance to enter the environment. Section 608(c)(1) also includes an exemption from this prohibition for “[d]e minimis releases associated with good faith attempts to recapture and recycle or safely dispose” of such a substance. Section 608(c)(2) states that, effective November 15, 1995, “paragraph (1) shall also apply to the venting, release, or disposal of any substitute substance for a class I or class II substance by any person maintaining, servicing, repairing, or disposing of an appliance or [IPR] which contains and uses as a refrigerant any such

⁸ We note that section 608(a) is not limited to refrigerants, and that the EPA has applied its authority under section 608(a) to establish or consider regulations for ODS in non-refrigerant applications. *See, e.g.*, 63 FR 11084.

⁹ While section 608(a)(3) provides that the regulations issued under section 608(a) “may include requirements to use alternative substances (including substances which are not class I or class II substances), . . . or to promote the use of safe alternatives pursuant to section [612]”, the EPA is not relying upon these provisions in 608(a)(3) in this document, as the regulatory changes effected by the 2016 Rule, which today’s action partially rescinds, do not relate to requirements to use substitutes or promote their use pursuant to section 612. (In implementing Title VI, the EPA has at times used the terms “alternative” and “substitute” interchangeably. *See, e.g.*, 81 FR 86779, n.1; 81 FR 82276, 82291.) Furthermore, the EPA did not rely on these authorities in 608(a)(3) in extending the refrigerant management requirements to substitute refrigerants in the 2016 Rule, and it is not relying on them in addressing the underlying questions of statutory interpretation at issue here.

¹⁰ In this context, the EPA uses the term “self-effectuating” to mean that the statutory prohibition on venting is itself legally binding even in the absence of implementing regulations.

substance, unless the Administrator determines that venting, releasing, or disposing of such substance does not pose a threat to the environment.” The EPA interprets section 608(c)(2)’s extension of section 608(c)(1) to substitute refrigerants to extend both the prohibition on venting and the *de minimis* exemption to non-exempt substitute refrigerants. This is a long-held position which the EPA is not revisiting in this action. (*See, e.g.*, 69 FR 11949, March 12, 2004; and 70 FR 19274-19275, April 13, 2005). Section 608(c) does not expressly provide that the EPA may write regulations under that section. Section 301, however, states that the “Administrator is authorized to prescribe such regulations as are necessary to carry out his functions under [the Clean Air Act].”

In the 2016 Rule, the EPA interpreted section 608 of the CAA as being ambiguous with regard to the agency’s authority to establish refrigerant management regulations for non-exempt substitute refrigerants because Congress had not precisely spoken to this issue. Accordingly, the EPA took the view that it had the discretion under *Chevron, U.S.A., Inc. v. Natural Res. Def. Council, Inc.*, 467 U.S. 837, 843-44 (1984), to interpret section 608 as providing the EPA with authority to extend all aspects of its refrigerant management regulations under section 608 to non-exempt substitute refrigerants, including those regulations that had previously only applied to ODS refrigerants. (*See* 81 FR 82283). The 2016 Rule explained that section 608(a) expressly requires the EPA to issue regulations that apply to class I and class II substances, but it does not expressly address whether the EPA could establish the same refrigerant management practices for substitute substances. On the other hand, section 608(c)(2) explicitly mentions substitute refrigerants and directly applies the provisions for ODS refrigerants in section 608(c)(1) to them. The 2016 Rule noted that this created a tension in the regulatory scheme for substitute refrigerants because the regulated community is subject to the prohibition on knowing venting,

releasing, or disposing of non-exempt substitute refrigerants while maintaining, servicing, repairing, or disposing of air conditioning and refrigeration equipment but at the same time section 608(a) does not direct the EPA to promulgate regulations requiring the regulated community to recover non-exempt substitute refrigerant prior to servicing or disposing of such equipment or to engage in any of the practices or behaviors that the EPA has established to minimize the emission and release of ODS refrigerants during such maintenance, service, repair, or disposal. The 2016 Rule further explained that while the subpart F regulations made clear that ODS refrigerant releases would be considered *de minimis* if (and only if) certain regulatory requirements were followed, the rules did not provide any such clarity regarding what practices regulated parties must follow to qualify for the *de minimis* exemption, and thereby comply with the venting prohibition, for non-exempt substitute refrigerants. (*See* 81 FR 82284).

In the 2016 Rule, the EPA grounded its authority for the extension of refrigerant requirements to non-exempt substitute refrigerants largely on section 608(c), which the EPA interpreted to provide it authority to promulgate regulations that interpret, explain, and enforce the venting prohibition and the *de minimis* exemption as they apply to non-exempt substitute refrigerants. (*See* 81 FR 82283-82284). In reaching this interpretation, the EPA relied in part on a policy rationale that by establishing a comprehensive and consistent framework that applies to both ODS and non-exempt substitute refrigerants, the 2016 Rule would provide clarity to the regulated community concerning the measures that should be taken to comply with the venting prohibition for non-exempt substitutes and would thus reduce confusion and enhance compliance for both ODS and non-exempt substitutes. The EPA further explained its view in the 2016 Rule that the extension of requirements under section 608 to non-exempt substitutes was also supported by section 608(a) because having a consistent regulatory framework for non-exempt

substitutes and ODS is expected to reduce emissions of ODS refrigerants. In addition, the EPA located supplemental authority for the 2016 Rule in section 301(a), which provides authority for the EPA to “prescribe such regulations as are necessary to carry out [the EPA Administrator’s] functions” under the Act. *Id.* Further, the EPA identified section 114, which provides authority to the EPA Administrator to require recordkeeping and reporting in carrying out provisions of the CAA, as providing supplemental authority to extend the recordkeeping and reporting requirements to non-exempt substitutes. *Id.*

B. The EPA’s Reassessment of Its Legal Authority under Section 608

The EPA’s ability to revisit existing regulations is well-grounded in the law. Specifically, the EPA has inherent authority to reconsider, repeal, or revise past decisions to the extent permitted by law so long as the agency provides a reasoned explanation. *See, e.g., Encino Motorcars LLC v. Navarro*, 136 S.Ct. 2117, 2125 (2016). The authority to reconsider prior decisions exists in part because the EPA’s interpretations of statutes it administers “[are not] instantly carved in stone,” but must be evaluated “on a continuing basis.” *Chevron U.S.A. Inc. v. NRDC, Inc.*, 467 U.S. 837, 863-64 (1984). This is true when, as is the case here, review is undertaken “in response to . . . a change in administrations.” *National Cable & Telecommunications Ass’n v. Brand X Internet Services*, 545 U.S. 967, 981 (2005). Indeed, “[a]gencies obviously have broad discretion to reconsider a regulation at any time.” *Clean Air Council v. Pruitt*, 862 F.3d 1, 8-9 (D.C. Cir. 2017). Similarly, the fact that an agency has previously adopted one interpretation of a statute does not preclude it from later exercising its discretion to change its interpretation. *National Cable & Telecommunications Ass’n*, 545 U.S. at 981. In addition, an agency may “justify its policy choice by explaining why that policy ‘is more consistent with statutory language’ than alternative policies.” *Encino Motorcars*, 136 S.Ct. at

2127 (quoting *Long Island Care at Home Ltd. v. Coke*, 551 U.S. 158, 175 (2007)). The CAA complements the EPA's inherent authority to reconsider prior rulemakings by providing the agency with broad authority to prescribe regulations as necessary to carry out the agency's functions under the CAA in section 301(a).

In this action the agency has reassessed the 2016 Rule's assertion of legal authority to extend the full set of subpart F requirements to non-exempt substitute refrigerants under CAA section 608. While the agency is retaining aspects of the interpretation that supported the 2016 Rule, it is revising that interpretation in some important respects for greater consistency with the statutory text, structure, and purposes, as described below. As in the 2016 Rule, the EPA continues to interpret section 608 as being ambiguous with regard to the agency's authority to establish refrigerant management regulations for non-exempt substitute refrigerants. Sections 608(a)(1) and (2) explicitly require the EPA to promulgate regulations regarding the use and disposal of ODS but as these provisions make no mention of substitutes they neither expressly preclude nor expressly authorize regulation of substitutes for the purpose of achieving the ODS goals of those provisions. Section 608(c)(2) does expressly mention substitute refrigerants, but that provision focuses on prohibiting knowing releases of substitute refrigerants in the course of specific activities (maintenance, service, repair, and disposal) and on providing an exemption for *de minimis* releases without specifying the mechanisms for carrying out this prohibition and exemption. Thus, Congress did not precisely delineate in section 608 the scope of the EPA's authority to regulate substitute refrigerants by issuing refrigerant management regulations.

The EPA also continues to believe that it is reasonable to interpret both sections 608(a) and (c) as providing authority that could support the extension of certain subpart F requirements to non-exempt substitute refrigerants. The EPA maintains the position that section 608(c) is

reasonably construed as providing the agency discretionary authority to interpret, explain, and enforce the venting prohibition and the *de minimis* exemption for substitute refrigerants, as section 608(c)(2) incorporates both the prohibition and the exemption and applies them to substitutes. Thus, these are both elements in the statutory regime that the EPA is entrusted to administer for substitute refrigerants. The fact that Congress extended the *de minimis* exemption for “releases associated with good faith attempts to recapture and recycle or safely dispose of any such substance” to substitutes under section 608(c)(2) but did not specify what practices or actions should be taken to qualify for this exemption, creates a statutory ambiguity that the EPA can resolve through regulation. However, section 608(c) is limited in the scope of releases and activities it addresses: it specifically covers knowing venting, release, or disposal of substitute refrigerants in the course of maintaining, servicing, repairing, or disposing of appliances. To the extent that the subpart F provisions extended to non-exempt substitutes in the 2016 Rule address the potential for such releases during one of these covered activities, those provisions continue to be within the scope of the EPA’s authority under section 608(c) under the interpretation supporting this action.

As for section 608(a), section 608(a)(3) requires the agency to issue regulations that reduce the use and emission of ODS to the lowest achievable level and maximize the recapture and recycling of such substances. While section 608(a)(3) contains discretionary language about what requirements those regulations *may* include, it does not contain any more specific mandates about *how* the required objectives should be achieved. Given this ambiguity, the EPA reasonably interprets section 608(a) to provide authority to issue regulations that reduce the use and emission of ODS to the lowest achievable level or that maximize the recapture and recycling of such substances, even if the regulations do not directly regulate ODS. Thus, as in the 2016 Rule,

to the extent that the extension of certain subpart F requirements to non-exempt substitutes is necessary to achieve the purposes set forth in section 608(a)(3) (i.e., reducing the use and emission of ODS to the lowest achievable level or maximizing the recapture and recycling of such substances), the EPA concludes that the extension is within the ambit of its authority under section 608(a).

In contrast to the 2016 Rule, however, the EPA has concluded that its statutory authority under section 608, taking that authority as a whole, does not extend as far with respect to substitutes as it does with respect to ODS. This conclusion is supported by the text and structure of section 608. The fact that Congress specifically included the term “substitutes” in section 608(c) but not in sections 608(a)(1) or (2), contrasted with the express references to ODS (class I and class II substances) in both subsections, suggests that the EPA’s authority to address substitutes under section 608 is more limited than its authority to address ODS. If Congress had intended to convey authority to the EPA to promulgate the same, full set of refrigerant management requirements for substitutes as for ODS, it is reasonable to expect that Congress would have expressly included substitutes in sections 608(a)(1) or (2), as it did for section 608(c)—but it did not. In addition, the differences in the verbs used in section 608(a) (authorizing regulations related to the “use and disposal” of ODS “including use and disposal during service, repair, or disposal” of appliances) compared to those used in section 608(c) (prohibiting knowing releases “in the course of maintaining, servicing, repairing, or disposing” of appliances) further supports the conclusion that Congress envisioned that the regulations under section 608(a) would affect a broader range of activities than those under section 608(c), as regulations under section 608(a) could address any use or disposal of ODS, rather than being limited to particular activities.

In sum, while the EPA continues to interpret section 608 to provide some authority to regulate substitute refrigerants, the EPA now reads sections 608(a) and (c) together to determine that its authority is more limited for substitute refrigerants than for ODS. In addition, the EPA continues to interpret CAA section 301(a), which provides that the EPA may “prescribe such regulations as are necessary to carry out [the EPA Administrator’s] functions” under the Act, to supplement its authority to issue regulations necessary to address substitute refrigerants under section 608(c). Further, the agency continues to interpret CAA section 114, which provides authority to the EPA Administrator to require recordkeeping and reporting in carrying out provisions of the CAA, as providing supplemental authority to extend the subpart F recordkeeping and reporting requirements to non-exempt substitutes.

C. The EPA Lacked Authority under Section 608 to Extend Leak Repair Requirements to Substitute Refrigerants

Applying the interpretive framework described in Section II.B above, the EPA has re-examined whether the 2016 Rule’s extension of the leak repair requirements to appliances that contain only substitute refrigerants was within its authority under section 608, either as (1) an appropriate means of interpreting, explaining, and enforcing the venting prohibition and the *de minimis* exemption under section 608(c), or (2) as regulations that are necessary to fulfill the purposes of section 608(a) to reduce the use and emission of ODS to the lowest achievable level or to maximize the recapture and recycling of ODS. As described further below, based on that legal analysis, the agency concludes that the extension of the leak repair requirements to non-exempt substitute refrigerants exceeded the EPA’s legal authority under section 608 because it relied on an unreasonable interpretation of that authority. Consequently, the EPA determines that the extension of the leak repair requirements to non-exempt substitute refrigerants must be

rescinded and is finalizing that rescission in this action. This rescission is also consistent with the agency's view that the scope of its authority under section 608 is more limited for substitutes than for ODS, and the EPA today is finalizing changes to its subpart F regulations to conform those regulations to its interpretation of the statute.

i. Section 608(c)

To justify the extension of the leak repair requirements to non-exempt substitute refrigerants in the 2016 Rule, the EPA reversed its longstanding position that “topping off” leaking appliances was not knowing venting or a knowing release of refrigerant in the course of maintaining, servicing, repairing, or disposing of an appliance within the meaning of section 608(c). The EPA's historic position, and the one that the agency is returning to through this action, is that refrigerant released during the normal operation of an appliance is generally not subject to the venting prohibition.

When establishing the original leak repair provisions in 1993, the EPA stated that:

[T]he venting prohibition itself, which applies to the maintenance, service, repair, and disposal of equipment, does not prohibit “topping off” systems, which leads to emissions of refrigerant during the use of equipment. The provision on knowing releases does, however, include the situation in which a technician is practically certain that his or her conduct will cause a release of refrigerant during the maintenance, service, repair, or disposal of equipment. Knowing releases also include situations in which a technician closes his or her eyes to obvious facts or fails to investigate them when aware of facts that demand investigation. [58 FR 28672.]

In the 2016 Rule, the EPA changed the agency's interpretation of the venting prohibition as part of the rationale that supported applying the leak repair requirements to non-exempt substitute refrigerants. The EPA stated in the 2016 Rule that it:

concludes that its statements in the 1993 Rule presented an overly narrow interpretation of the statutory venting prohibition. Consistent with the direction articulated in the proposed 2010 Leak Repair Rule, EPA is adopting a broader interpretation. When refrigerant must be added to an existing appliance, other than when originally charging the system or for a seasonal variance, the owner or operator necessarily knows that the system has leaks. At that point the owner or operator is required to calculate the leak rate.

If the leaks exceed the applicable leak rate for that particular type of appliance, the owner or operator will know that absent repairs, subsequent additions of refrigerant will be released in a manner that will permit the refrigerant to enter the environment. Therefore, EPA interprets section 608(c) such that if a person adds refrigerant to an appliance that he or she knows is leaking, he or she also violates the venting prohibition unless he or she has complied with the applicable practices referenced in §82.154(a)(2), as revised, including the leak repair requirements, as applicable. [81 FR 82285.]^[11]

The EPA now concludes that this 2016 interpretation was unreasonable and that extending the leak repair provisions to substitute refrigerants exceeded the scope of the agency's authority under section 608(c)(2). The leak repair provisions include requirements to determine whether an appliance is leaking above the threshold leak rate applicable to that type of appliance, to repair an appliance that leaks above the applicable leak rate, and to conduct verification tests and periodic leak inspections on appliances that have exceeded the threshold leak rate, as well as requirements to retrofit or retire appliances that are not repaired and recordkeeping and reporting requirements. The 2016 interpretation is an unreasonable reading of section 608(c)(2) because the refrigerant releases from such leaks typically occur during the normal operation of the appliance, rather than "in the course of maintaining, servicing, repairing, or disposing of" an appliance. The operational leaks that trigger the leak repair provisions may take the form of a slow leak that results in the need to add refrigerant, and such releases occur in the weeks or months prior to the servicing event. Leaks may also result from an unintended catastrophic failure, which leads to a subsequent service event to recharge the appliance. Neither of these types of releases typically occur in the course of maintaining, servicing, repairing, or disposing of an appliance. Rather, in these situations the release of refrigerant typically occurs before the servicing event, and the owner or operator may not be aware of the release until it affects

¹¹ The EPA did not finalize the 2010 leak repair proposal (75 FR 78558). As noted in the 2016 Rule (81 FR 82275), the EPA withdrew the 2010 proposal in the 2016 rulemaking and re-proposed elements of the 2010 proposal in the notice of proposed rulemaking (80 FR 69461) for the 2016 Rule.

equipment performance. The EPA has always understood that few appliances are leak-free, which further supports the notion that leaks commonly occur during the normal operation of an appliance, rather than during appliance maintenance, service, repair, or disposal.¹² The EPA has also recognized that “[t]his is particularly likely for larger and more complicated appliances like those subject to the subpart F leak repair provisions.” (81 FR 82313).

In addition, while the 2016 Rule cited various dictionary definitions of the term “maintain” to support an interpretation that the inclusion of the concept of maintenance in section 608(c) covered a broad range of activities involved in preserving equipment in normal working order (*see* 81 FR 82291), the EPA does not believe that Congress intended the statutory term “maintaining” in section 608(c) to include the normal operation of an appliance. Congress did use broad language in 608(a) (“use ... of class I and class II substances”) that encompasses activities during normal operation of appliances. If Congress had intended for 608(c) to apply to normal operations, it could have included the term “use” in section 608(c), as it did in section 608(a)—but it did not. In addition, the term appears in section 608(c) as part of a group with three other terms (“servicing, repairing, or disposing”) that are distinct from normal operation of an appliance. Thus, reading the term in the overall context of section 608, the EPA does not believe that it is reasonable to interpret “maintaining” to include the normal operation of the appliance.

The EPA is accordingly returning to the agency’s reasonable interpretation of 608(c) with respect to leaks, which had been long-held until it was revised in the 2016 Rule. Based on this change in interpretation, the EPA therefore concludes that the leak repair provisions apply to

¹² Recognizing that appliances can leak during their normal operation, §82.157(g) requires periodic leak inspections of appliances with 50 or more pounds of refrigerant that have been repaired after leaking above the applicable threshold rate. Automatic leak detection equipment is also allowed in lieu of inspections for such appliances, or portions of such appliances.

activities and releases that are too distinct from those identified in section 608(c) to provide the EPA with regulatory authority to extend the leak repair regulations to non-exempt substitute refrigerants.¹³

The EPA notes that under this interpretation the venting prohibition under section 608(c) would continue to apply to actions taken in the course of maintaining, servicing, repairing, or disposing of appliances containing non-exempt substitute refrigerant, including those containing 50 or more pounds of such refrigerant. For example, knowing release from cutting refrigerant lines when disposing of an appliance is prohibited. Similarly, opening an appliance to repair a component without first isolating it and recovering the refrigerant would typically lead to a knowing release of refrigerant to the environment during the service, maintenance, or repair of an appliance and thus would also be prohibited. It is also possible that some “topping off” may occur in an appliance with a leak that is so visible, audible, or frequent that adding refrigerant to the appliance creates the practical certainty that the refrigerant will be released contemporaneously with the servicing event to add refrigerant and therefore may constitute a knowing release subject to the venting prohibition. For example, hearing hissing or noticing a ruptured line while continuing to add refrigerant to an appliance would constitute a knowing release. However, the EPA has no information to suggest that this occurs in a substantial number of situations, and the mere possibility of such an event does not justify a blanket interpretation that “topping off” an appliance that has leaked, absent adherence to the requirements at §82.157, is necessarily and *per se* a violation of 608(c).

ii. Section 608(a)

¹³ Furthermore, the leak repair provisions are not sufficiently related to “good faith attempts to recapture and recycle or safely dispose” of refrigerant under the *de minimis* exemption in section 608(c) for that provision to provide independent authority for the extension of the leak repair requirements to non-exempt substitute refrigerants.

The EPA stated in the preamble to the 2016 Rule that the agency's authority for extending the refrigerant management regulations to substitute refrigerants is based in part on section 608(a), in light of the corresponding reductions in ODS emissions and increases in ODS recapture and recycling that are expected to result from requiring consistent practices for ODS and substitute refrigerants. (81 FR 82288). In part, this was based on the potential for cross-contamination, refrigerant mixing, and related releases from ODS appliances in the absence of consistent practices. The response to comments for the 2016 Rule¹⁴ also noted, in the context of explaining the EPA's authority for the revisions to §82.157, that providing a consistent standard for ODS and non-exempt substitute refrigerants would reduce emissions of ODS by reducing the incidence of failure to follow the requirements for ODS appliances due to refrigerant confusion. However, in neither discussion did the EPA address whether, if all other subpart F requirements were extended to non-exempt substitutes, it would be necessary to also extend §82.157 to non-exempt substitute refrigerants to serve the purposes of section 608(a), as articulated in sections 608(a)(3)(A) and (B).

After further consideration, the EPA believes that these statements in the 2016 Rule, which were advanced generally and without distinction to support extending all the subpart F requirements to non-exempt substitute refrigerants, failed to recognize that the leak repair provisions have a more attenuated connection to the purposes of section 608(a) when applied to non-exempt substitute refrigerants than do the rest of the subpart F requirements, especially once application of all the other subpart F requirements to such refrigerants is taken into account. After further consideration, the EPA believes that extending the leak repair requirements to

¹⁴ Response to Comments for the Notice of Proposed Rulemaking: Protection of Stratospheric Ozone: Update to the Refrigerant Management Requirements under the Clean Air Act, pages 13-14 (pdf pages 18-19). Available at: <https://www.regulations.gov/document?D=EPA-HQ-OAR-2015-0453-0226>.

appliances containing non-exempt substitutes is not necessary to meet the purposes of section 608(a). Because the EPA is retaining the other subpart F requirements for non-exempt substitute refrigerants, the rescission of the extension only of the leak repair requirements is unlikely to directly affect ODS emissions or the recapture and recycling of ODS. For example, since the EPA is retaining the requirement that only a certified technician can open an appliance containing non-exempt substitute refrigerant, it is unlikely that leaks in appliances with 50 or more pounds of ODS refrigerant would not be repaired because of a difference in the duty to repair between appliances containing ODS and those containing substitute refrigerants. The repair of leaks in ODS-containing appliances in this size range has been required since 1993, and owners and operators of such appliances as well as certified technicians are well aware of those requirements.

The EPA also does not believe that applying the leak repair provisions to appliances that use only non-exempt substitute refrigerants would independently reduce cross-contamination, refrigerant mixing, or related releases from an ODS appliance. As discussed further in Section II.D of this document, the agency will continue to apply the other elements of the 608 program, such as the refrigerant sales restriction, technician certification, reclamation requirements, and evacuation standards, to non-exempt substitute refrigerants, and these elements address those concerns. Taken together, the other subpart F requirements also reduce the incidence of failure to follow the requirements for ODS appliances. By contrast, application specifically of the leak repair requirements to equipment containing only substitute refrigerants would not lead to additional reductions in ODS emissions. Nor would it lead to additional increases in the recapture and recycling of ODS because there is no ODS in these appliances to be recaptured or recycled.

Thus, insofar as the 2016 Rule was grounded in an argument that section 608(a) supports the extension of the leak repair provisions to non-exempt substitute refrigerants, the EPA is withdrawing that interpretation. Accordingly, the EPA concludes that the connection between applying the leak repair requirements to appliances with only substitute refrigerants and serving the purposes in section 608(a)(3) is too tenuous to reasonably support reliance on CAA section 608(a) as a basis for authority to extend the leak repair requirements to non-exempt substitutes.

D. The EPA Had Authority under Section 608 to Extend Subpart F Provisions Other than Leak Repair Provisions to Substitute Refrigerants

The EPA requested comments on whether the agency should withdraw the entire extension of subpart F requirements to non-exempt substitute refrigerants in the 2016 Rule given its proposed interpretation. As described in more detail below, after considering the comments received, and analyzing the relevant provisions under the interpretive framework described in Section II.B above, the EPA concludes that, except for the leak repair provisions, the 2016 Rule's extension of the subpart F requirements to non-exempt substitute refrigerants was within the scope of its authority under section 608. Thus, aside from the rescission of the extension of the leak repair provisions discussed in Section II.C, the EPA is not withdrawing the extension of any of the non-leak repair provisions in subpart F to non-exempt substitute refrigerants.

i. Section 608(c)

The EPA is retaining the extension of the non-leak repair provisions in subpart F for non-exempt substitute refrigerants as appropriate measures to interpret, explain, and enforce the venting prohibition and the *de minimis* exemption for non-exempt substitute refrigerants under 608(c). In contrast to the leak repair requirements, the other provisions of subpart F that the EPA extended to non-exempt substitute refrigerants in the 2016 Rule relate directly to releases that

necessarily occur in the course of maintaining, servicing, repairing, or disposing of an appliance. Accordingly, those provisions directly address the potential for knowing releases of non-exempt substitute refrigerants that would be within the scope of section 608(c)(2) or the application of the *de minimis* exemption to non-exempt substitute refrigerants under section 608(c)(2), and therefore are within the EPA's authority under section 608(c)(2).

The EPA has long recognized connections between the non-leak repair requirements in subpart F and the potential for releases to occur during appliance maintenance, service, repair, or disposal, and continues to do so. For example, failure to properly evacuate an appliance (§82.156 and §82.158) before opening it for servicing will create the practical certainty that the refrigerant in the appliance will be released during the servicing event. The requirement that small appliances be equipped with a process stub (§82.154(e)(2)) facilitates the removal of refrigerant at servicing and disposal. The requirements (§§82.156 and 82.158) that recovery and/or recycling equipment be used during the maintenance, servicing, repair or disposal of an appliance, and that such equipment be tested and certified by an EPA-approved laboratory or organization, are intended "to ensure that recycling and recovery equipment on the market is capable of limiting emissions" during such servicing and disposal activities. (58 FR 28682). The vapor recovery efficiency and the efficiency of noncondensable purge devices on recycling machines affect total recovery efficiency and thus how much refrigerant will be released to the environment once the appliance is opened for maintenance, servicing, repair or disposal. After a certified technician properly evacuates an appliance according to the requirements of §82.156, any remaining refrigerant that is then released during the maintenance, service, repair or disposal of the appliance can be considered a *de minimis* release associated with good faith attempts to recycle or recover refrigerants. Similarly, disposing of an appliance without removing the

refrigerant as required under §82.155 will result in the release of any remaining refrigerant during disposal of the appliance. The EPA has long emphasized this point. When the EPA first issued the safe disposal requirements in 1993, the EPA stated: “The Agency wishes to clarify that the prohibition on venting refrigerant includes individuals who are preparing to dispose of a used appliance.” (58 FR 28703). The recordkeeping provisions at §82.155(c)(2) are necessary to ensure that disposers of small appliances are adhering to the venting prohibition and the evacuation requirements. Similarly, the recordkeeping provisions at §82.156(a)(3) ensure that technicians are adhering to the venting prohibition and evacuation requirements when disposing of mid-sized appliances. These recordkeeping requirements help ensure accountability for compliance with the venting prohibition, as well as improving the enforceability of the prohibition. With respect to the sales restriction and technician certification requirements, consistent with its long-standing view, the EPA continues to believe that “unrestricted sales will enable untrained or undertrained technicians to obtain access to refrigerants that are likely to be used improperly in connection with servicing activities that will result in the venting of refrigerants” (58 FR 28698) and that restricting servicing activities to technicians trained on the regulatory requirements and proper use of equipment reduces emissions and enhances compliance (*see* 58 FR 28692). Further, “[e]ducating technicians on how to contain and conserve refrigerant effectively, curtailing illegal venting into the atmosphere” was one of the primary reasons many technicians commented in support of the certification program when it was initially promulgated. (58 FR 28691).

Thus, the EPA continues to agree with the assessment in the 2016 Rule that these refrigerant management provisions address releases that necessarily occur in the course of maintaining, servicing, repairing, or disposing of an appliance. Accordingly, the agency

concludes that the 2016 Rule's extension of these subpart F requirements to non-exempt substitute refrigerants is within the scope of the EPA's authority under CAA section 608(c)(2), because these requirements interpret, explain, or help enforce that provision's venting prohibition and the application of the *de minimis* exemption.

The EPA views the agency's authority to extend the reclamation requirements to non-exempt substitute refrigerants under section 608(c) as relating specifically to appliance servicing and disposal. By "reclamation requirements," the EPA means: the requirements under §82.164, including the requirements to reclaim used refrigerant before it is sold for use in an appliance; the requirement that reclaimed refrigerant be tested and meet AHRI Standard 700-2016, Specifications for Refrigerants (an industry developed consensus standard that the EPA has adopted into its regulations); and the requirement that reclaimers be certified by the EPA and agree to meet certain standards. The EPA interprets section 608(c), particularly the provisions relating to the servicing and disposal of appliances as described below, to provide authority that supports the extension of the reclamation requirements to non-exempt substitute refrigerants.

Section 608(c)(1) states that "it shall be unlawful for any person in the course of maintaining, servicing, repairing, or disposing of an appliance ... to knowingly vent or otherwise knowingly release or dispose of any class I or class II substance used as a refrigerant ... in a manner which permits such substance to enter the environment." Furthermore, the *de minimis* exemption encompasses "releases associated with good faith attempts to recapture and recycle or safely dispose of any such substance" As described above, the EPA interprets section 608(c)(2) to extend the prohibitions in 608(c)(1), including the restriction on releases in the course of disposing and servicing of appliances and the *de minimis* exemption, to substitute substances.

As part of the EPA’s authority to interpret, explain, and enforce the venting prohibition under 608(c), the agency also has authority to address what constitutes disposal of an appliance. The agency defines “disposal” in Subpart F to mean “the process leading to and including” several listed activities, such as “the discharge, deposit, dumping or placing of any discarded appliance into or on any land or water;” the “disassembly of any appliance for discharge, deposit, dumping or placing of its discarded component parts into or on any land or water” or for reuse of its component parts; the “vandalism of any appliance such that the refrigerant is released into the environment or would be released into the environment if it had not been recovered prior to the destructive activity;” and the “recycling of any appliance for scrap.” (§82.152).

The reclamation requirements explain how to “recapture and recycle” refrigerants that are recovered in the course of servicing or disposing of an appliance in lieu of releasing them into the environment. Reclamation, a process whereby used refrigerant is purified to meet required specifications and then permitted to be sold for reuse, is a means of “recaptur[ing] and recycl[ing]” refrigerant. The reclamation requirements have the added benefit of supporting a market in which technicians can sell recovered refrigerant to reclaimers for compensation; this provides a financial benefit to technicians who recover refrigerant during appliance disposal rather than venting it.¹⁵

The interpretation that the reclamation requirements directly relate to interpreting, explaining, and enforcing the prohibition on venting during appliance servicing and disposal is further supported by the fact that Congress included “releases associated with good faith attempts to . . . recycle or safely dispose of any such substance” in the *de minimis* exemption to

¹⁵ Much of the refrigerant recovered and sent for reclamation occurs during the disposal of an appliance. However, some refrigerant that is sent for reclamation is also recovered during the servicing of an appliance, including the retrofitting of an appliance for use with a different refrigerant.

the venting prohibition. This indicates that Congress clearly contemplated that certain refrigerant-related actions could be implicated by the appliance-related actions covered by the venting prohibition.

The EPA further interprets the phrase “recycle or safely dispose of any such substance,” when referring to either ODS or non-exempt substitute refrigerants, to include reclamation. Accordingly, the EPA believes the extension of the reclamation requirements to non-exempt substitutes refrigerants is supported by 608(c) because these requirements interpret, explain, and enforce section 608(c)’s prohibition on releases of non-exempt substitute refrigerants during the servicing and disposal of appliances and the *de minimis* exemption for recycling or safely disposing of such refrigerants.

ii. Section 608(a)

The EPA also concludes that section 608(a) provides the EPA authority for the 2016 Rule’s extension of the non-leak repair subpart F requirements to the extent that there is demonstrably a connection between those requirements and the purposes of 608(a), as articulated in sections 608(a)(3)(A) and (B). As the EPA concluded in the preamble to the 2016 Rule:

This action extending the regulations under subpart F to non-exempt substitutes is additionally supported by the authority in section 608(a) because regulations that minimize the release and maximize the recapture and recovery of non-exempt substitutes will also reduce the release and increase the recovery of ozone-depleting substances. Improper handling of substitute refrigerants is likely to contaminate appliances and recovery cylinders with mixtures of ODS and non-ODS substitutes, which can lead to illegal venting because such mixtures are difficult or expensive to reclaim or appropriately dispose of.... In short, the authority to promulgate regulations regarding the use of class I and II substances encompasses the authority to establish regulations regarding the proper handling of substitutes where this is needed to reduce emissions and maximize recapture and recycling of class I and II substances. Applying consistent requirements to all non-exempt refrigerants will reduce complexity and increase clarity for the regulated community and promote compliance with those requirements for ODS refrigerants, as well as their substitutes. [81 FR 82286.]

The 2016 Rule discussed how failure to apply consistent standards to appliances

containing non-exempt substitute refrigerants and those containing ODS refrigerants could lead to emissions of ODS (81 FR 82288). After additional consideration, the EPA affirms the potential for such inconsistent requirements to increase ODS emissions. For example, applying the sales restriction and technician certification requirements for persons servicing appliances using non-exempt substitute refrigerants reduces the possibility that refrigerant in the appliances may be misidentified or mishandled by an uncertified person attempting to service the appliance. Improper handling of non-exempt substitute refrigerants by persons lacking the requisite training may contaminate appliances and recovery cylinders with mixtures of ODS and non-ODS substitutes. Contaminated appliances may lead to equipment failures and emissions from those systems, including emissions of ODS. Contaminated refrigerant is more costly to reclaim for re-use and the only other option besides reclamation (or recycling for use by the same owner) to avoid its entry to the environment is that it be destroyed. However, the costs of reclaiming or destroying these mixed refrigerants incentivizes intentional releases, including of ODS, to the atmosphere from contaminated appliances and recovery cylinders. Applying the same requirements for servicing and disposing of appliances containing ODS and non-exempt substitute refrigerant ensures standard procedures are followed, which reduces the possibility for errors and the risk of ODS emissions associated with misidentification or mishandling of the refrigerant.

The EPA also concludes that section 608(a) provides the EPA authority for the 2016 Rule's extension of the reclamation requirements to non-exempt substitute refrigerants. The EPA established the reclamation requirement for used ODS refrigerant in 1993 to prevent equipment damage, and the resultant emissions caused by use of contaminated refrigerant in appliances, and to provide confidence in the market for used refrigerants (58 FR 28678). Because of the venting

prohibition, combined with the phaseout of ODS, the EPA in 1993 anticipated a large increase in recovered refrigerant and was concerned about the risks to appliances posed by use of contaminated refrigerant. As the EPA stated in the 1993 Rule, damaged equipment would often leak during operation and would require servicing or replacement more often than undamaged equipment, increasing refrigerant emissions. Damage to equipment would also reduce consumer confidence in the quality of used refrigerant, leading to erosion of the market for used refrigerants and possibly to their release. As described further below, the 2016 Rule's extension of the reclamation requirements to non-exempt substitute refrigerants addresses these concerns and therefore furthers the goals of section 608(a)(3) to reduce the emissions of ODS and maximize the recapture and recycling of ODS.

An important aspect of the reclamation requirements is the requirement that used refrigerant be reclaimed to certain purity standards prior to sale for re-use. By requiring that used refrigerant be reclaimed prior to sale, the reclamation requirements also prohibit the immediate reuse of recovered refrigerant, with the exception of use in equipment owned by the same entity owning the equipment from which the refrigerant was removed. In 1993, the EPA expressed concern that recovered refrigerant may contain moisture, acids, oil, particulates, or other contaminants that can lead to serious damage to the equipment if it is reused without taking some action to remove these contaminants. Recovered non-exempt substitute refrigerants today contain those same contaminants as in 1993 with one significant difference: the increase in the use of substitute refrigerants, including multi-component blends, has resulted in more types of refrigerant encountered by technicians. Often ODS and non-ODS refrigerants are improperly recovered into the same recovery cylinder, leading to mixed refrigerant which contains both ODS and non-ODS. This is supported by data reported annually by EPA-certified reclaimers

under §82.164(d)(3) which show that the amount of mixed refrigerant they receive is increasing.¹⁶ The lack of consistent reclamation requirements for non-exempt substitutes could result in confusion about what to do if there is uncertainty about the contents of a cylinder or about the proper treatment of mixtures. Equipment can be damaged, resulting in refrigerant emissions, including ODS emissions, if such mixed refrigerant is not sent for reclamation but rather sold and recharged into appliances designed for non-exempt substitute refrigerants. Reclamation requirements to remove impurities and separate mixed refrigerants reduce the likelihood of equipment failure and subsequent emissions of ODS. These requirements also promote the recycling of ODS because once it is separated from the mixed refrigerant the ODS can subsequently be reclaimed for reuse.

In addition, the combined effect of the reclamation provisions relating to EPA's certification of reclaimers, the purity standards that reclaimed refrigerant must meet, and the testing of that refrigerant to ensure it meets those standards together provide confidence in the market for used refrigerants. Reclamation is performed by private businesses and is subject to market forces. Currently these market forces provide a financial incentive to technicians to recover refrigerant and send it to a reclaimer in as pure a state as possible to maximize the compensation they receive. Absent that financial incentive, technicians may be more likely to vent the refrigerant than to send it for reclamation, which could lead to ODS emissions when the refrigerant vented is an ODS or a mixture containing ODS. These market forces also sustain an industry whose function is to reprocess used refrigerant. Reclamation is critical to achieving the goal of maximizing the recapture and recycling of ODS, as set forth in section 608(a)(3)(B). Absent reclamation, banks of ODS refrigerant found in existing equipment, in stockpiles, or

¹⁶ These data can be found at: <https://www.epa.gov/section608/summary-refrigerant-reclamation-trends>.

mixed with other used refrigerant will instead likely be released, given the costs of destruction. In sum, the EPA concludes that the extension of the reclamation requirements to non-exempt substitutes is supported by section 608(a)(3) because extending these requirements to non-exempt substitutes serves the purposes set forth in 608(a)(3) of maximizing the recapture and recycling of ODS and reducing ODS emissions to the lowest achievable level.

In conclusion, because the application of the non-leak repair requirements to non-exempt substitute refrigerants is connected to the purposes of section 608(a)(3) via the corresponding reductions in ODS emissions and increases in ODS recapture and recycling that are expected to result from maintaining the reclamation requirements for non-exempt substitute refrigerants and retaining consistent practices for ODS and non-exempt substitute refrigerants. Therefore, the EPA concludes that the extension of these requirements is within the scope of its authority under CAA 608(a).

III. Summary and Response to Major Comments

This section summarizes many comments received on this rule, particularly those related to the EPA's legal authority to regulate substitute refrigerants under section 608, and the EPA's responses. Other comments received for this action are addressed in Sections IV and V below, as well as in the response to comments document found in the docket for this action.

A. Comments on the scope of the agency's authority to regulate substitutes under section 608(c)

The EPA received multiple comments in support of the agency's authority to interpret and explain section 608(c) through the issuance of regulations. These commenters point to the text, purpose, context, and legislative history of section 608(c) to argue that the EPA has broad authority to regulate substitute refrigerants to prevent illegal venting. Most of these commenters support the EPA's view of its authority as articulated in the 2016 Rule, both for the leak repair

provisions and the non-leak repair provisions in subpart F. Other commenters, however, state that the EPA's authority under 608(c) does not allow for the leak repair provisions established in the 2016 Rule. One of those commenters states that the EPA has authority to establish the non-leak repair requirements for substitutes, but not the leak repair provisions. Another one of those commenters states that the EPA's authority under 608(c) does not extend so far as to authorize regulations for substitutes that are co-extensive with the regulations required under 608(a) requirements for ODS. That commenter states that the lack of an explicit grant of authority from Congress for the EPA to establish a regulatory program for substitutes indicates that no such authority exists, arguing that Congressional silence is not a delegation of authority to regulate. Another commenter states that the EPA lacks authority to regulate substitutes in any manner under section 608(c). The commenter states that 608(c) is a self-effectuating enforceable requirement to use good management practices and does not provide the EPA with the authority to implement a regulatory program.

The agency agrees that the EPA's authority to issue regulations interpreting, explaining, and enforcing section 608(c) is not co-extensive with its authority to regulate under section 608(a). Thus, the agency disagrees with the comments that supported the view of the EPA's authority as articulated in the 2016 Rule. As explained in Section II above, the agency now interprets sections 608(a) and (c) together to determine that while these provisions are reasonably read to provide it some authority to regulate substitute refrigerants, its authority is more limited for substitute refrigerants than for ODS. In so doing, the EPA recognizes and gives weight to the fact that sections 608(a) and 608(c) differ from one another in some key respects, including the fact that 608(a)(1) and (2) expressly require the EPA to issue regulations for class I and class II substances, but include no such requirement for—or indeed any mention of—substitutes. In

contrast, 608(c) does explicitly apply to substitute refrigerants, but that subsection leaves the EPA discretion as to whether to promulgate regulations implementing its provisions and is focused on preventing knowing releases of refrigerants in the course of maintaining, servicing, repairing, or disposing of appliances and on providing an exemption for *de minimis* releases without specifying the mechanisms for carrying out this prohibition and exemption. In light of these differences in wording between 608(a) and 608(c), the EPA concludes in this action that the 2016 Rule's extension of the full set of subpart F requirements to non-exempt substitute refrigerants exceeded its statutory authority under section 608 because the extension of the full set of requirements (i.e., as an entirety) was inconsistent with the more limited scope of the EPA's authority under section 608 to regulate substitute refrigerants as compared with its authority to regulate ODS refrigerants. In addition, as explained in Section II of this document, the EPA has concluded that the 2016 Rule's extension of the leak repair requirements to non-exempt substitute refrigerants exceeded its authority under both sections 608(c) and 608(a). Therefore, the agency disagrees with the comments concluding that the EPA did have authority to extend the leak repair requirements to non-exempt substitute refrigerants, and agrees with the comments that the extension of these requirements exceed the agency's authority under 608(c).

To the extent that the comments are intended to suggest that any overlap between regulations under sections 608(a) and 608(c) exceeds the EPA's statutory authority, the agency disagrees. The fact that Congress required the EPA to address ODS refrigerants in a specific way under section 608(a), and then included a separate provision under 608(c) to address knowing venting, release, and disposal of ODS and substitute refrigerants during certain activities, does not demonstrate that Congress intended to preclude the EPA from implementing section 608(a) and the venting prohibition in section 608(c) by using similar requirements for ODS and

substitute refrigerants, when such an approach is independently consistent with those statutory provisions. Taking such an approach does not mean that the agency is using section 608(a) to implement section 608(c), or *vice versa*, but instead simply indicates that these regulatory approaches can be justified under both section 608(a) and 608(c).¹⁷ For example, as explained in Section II above, the EPA concludes it was within its statutory authority under both sections 608(a) and 608(c) to extend the non-leak repair provisions in subpart F to substitute refrigerants.

With regard to the comments that the EPA does not have regulatory authority under section 608(c) either because that provision is self-effectuating or because it does not contain explicit authorization to issue regulations, the EPA disagrees. The agency has long held and continues to maintain that 608(c), though self-effectuating, provides authority to issue implementing regulations that interpret, explain, and enforce the venting prohibition and the *de minimis* exemption in section 608(c) and that include the venting prohibition in the overall context of the regulatory scheme. (*See, e.g.*, 69 FR 11947). Thus, while section 608(c) does not include a requirement to issue regulations as section 608(a) does, the agency does not view the lack of a requirement as equivalent to a prohibition on issuing regulations under section 608(c). This is not a situation where Congress was silent as to whether the statutory provision applies to substitutes. Rather, Congress specifically included substitutes in the venting prohibition. It also provided the agency additional discretion to exempt substitutes from the venting prohibition when it determined that the venting, release, or disposal of the substitute did not pose a threat to

¹⁷ As explained in the 2016 Rule, the EPA continues to believe that using section 608(c) to establish similar requirements to those authorized under section 608(a) does not render section 608(a) a nullity: “Unlike section 608(c), section 608(a) is not limited to refrigerants. EPA has applied its authority under section 608(a) to establish or consider regulations for ODS in non-refrigerant applications. As an example, in 1998, EPA issued a rule on halon management under the authority of section 608(a)(2) (63 FR 11084, March 5, 1998). In that action, EPA noted that section 608(a)(2) ‘directs EPA to establish standards and requirements regarding the use and disposal of class I and II substances other than refrigerants.’ 63 FR 11085. Similarly, EPA considered whether to establish a requirement to use gas impermeable tarps to reduce emissions of methyl bromide under section 608(a)(2), ultimately determining not to do so for technological and economic reasons. 63 FR 6008 (February 5, 1998).” (82 FR 82290).

the environment. The EPA construes the inclusion of substitutes in section 608(c)(2) in these ways to indicate that Congress contemplated that regulation of substitutes would occur.

Furthermore, while the EPA is not relying on CAA section 301(a) for primary or substantive authority in this action, the agency believes that the text of CAA section 301(a), which provides that the EPA may “prescribe such regulations as are necessary to carry out [the EPA Administrator’s] functions” under the Act, supplements its authority under section 608(c) to issue regulations that interpret, explain, or enforce the venting prohibition and the *de minimis* exemption. In addition, as some commenters point out, the legislative history indicates that in establishing the venting prohibition, Congress expected the EPA to promulgate regulatory “provisions to foster implementation of this prohibition, including guidance on what constitutes ‘de minimis’ and ‘good faith’.” *Report of the Committee on Environment and Public Works United States Senate, Report Accompanying S. 1630 (S. Rept. 101-228)* (December 20, 1989) at 396 (*reprinted in 5 A Legislative History of the Clean Air Act Amendments of 1990*, at 8736 (1993)).

Furthermore, as explained in Section II of this document, the agency continues to view section 608 as ambiguous in important respects. In section 608(c) Congress provided an exemption to the venting prohibition for certain *de minimis* releases, but it did not define what releases would be considered “*de minimis*” nor which activities would be considered “good faith attempts to recapture and recycle or safely dispose” of such substances. Where Congress has not directly spoken to an issue or has left ambiguity in the statute, that silence or ambiguity creates an assumption that “Congress implicitly delegated to the agency the power to make policy choices that represent a reasonable accommodation of conflicting policies that are committed to the agency’s care by the statute.” *National Ass’n of Mfrs. v. United States DOI*, 134 F.3d 1095,

1106 (D.C. Cir. 1998). As the U.S. Supreme Court has explained, the “power of an administrative agency to administer a congressionally created . . . program necessarily requires the formulation of policy and the making of rules to fill any gap left, implicitly or explicitly, by Congress.” *Chevron*, 467 U.S. at 843–44. Accordingly, Congress’s silence with regard to carrying out the venting prohibition and the exception for certain releases leaves a gap for the Agency to fill.

Consistent with this view, the EPA’s regulations at §82.154 have included the venting prohibition since they were originally promulgated in 1993. (58 FR 28714). Even before the 2016 Rule, the subpart F regulations provided that “[n]o person maintaining, servicing, repairing, or disposing of appliances may knowingly vent or otherwise release into the environment any refrigerant or substitute from such appliances” and then provided for exceptions from this prohibition for specified substitutes in specified end-uses. (§82.154 (2014)). These exceptions implemented the discretion Congress left the EPA under 608(c)(2) to exempt certain releases from the venting prohibition, if the Administrator has determined that “venting, releasing, or disposing of such substance does not pose a threat to the environment.” CAA section 608(c)(2). Similarly, the regulations at §82.154 in place before the 2016 Rule included provisions clarifying that “[ODS] releases shall be considered *de minimis* only if they occur when” certain regulatory requirements are observed. (§82.154(a)(2) (2014)). However, those regulations did not provide the same clarity regarding releases of non-exempt substitute refrigerants or what practices would be considered to fall within the ambit of “good faith attempts to recycle or recover” non-exempt substitute refrigerants. (§82.154(a)(2)). The EPA has long interpreted section 608(c)(2) to incorporate and extend both the venting prohibition and the *de minimis* exemption in section 608(c)(1) to substitute refrigerants, but Congress did not specify what practices or actions should

be taken to qualify for this exemption in either provision. Thus, it is reasonable to interpret these provisions as indicating that Congress contemplated that the EPA would have authority to resolve this ambiguity by issuing regulations to implement section 608(c). For these reasons, and as explained in prior sections of this document, the EPA continues to believe that section 608(c) is reasonably interpreted to provide it some authority to issue regulations applicable to substitute refrigerants and thus disagrees with these comments.

B. Comments on whether “topping off” a leaking appliance constitutes a knowing release subject to the venting prohibition

The EPA received multiple comments stating that the operation of an appliance, and the “topping off” with additional refrigerant, is not knowing venting prohibited under section 608(c). They state that venting must occur during the service, maintenance, repair, or disposal of an appliance to be prohibited. Other comments disagree with the EPA’s proposed decision to return to its pre-2016 interpretation of “topping off.” A couple of commenters state that the fact that refrigerant must be added demonstrates that there is a leak, which would continue if not repaired, and that a technician that repeatedly tops off refrigerant from leaking equipment knows the refrigerant is being released. These commenters object to the proposal to return to the prior interpretation of “topping off” because under that interpretation, no matter how significant the quantity of lost refrigerant from a leaking appliance, it would not violate the venting prohibition unless there was a practical certainty refrigerant was being released during the servicing event. These commenters thought such a result conflicted with section 608’s purpose of reducing emissions of ODS and their substitutes. These commenters also generally found the EPA’s 2016 change in its historical interpretation to be reasonable and supported retaining that interpretation. Other commenters look to the word “maintenance” in section 608 as providing authority for the

leak repair provisions. One commenter states that “maintenance” includes normal operation, noting the definition of maintenance includes “keep[ing] in an existing state” or “preserv[ing]” the machinery.¹⁸ Another comment states that because proper maintenance includes fixing leaks, failure to adequately repair leaks violates the venting prohibition.

The EPA disagrees with commenters that state that the “topping off” of a leaking appliance is necessarily prohibited under section 608(c). The addition of refrigerant to an appliance during service, maintenance, or repair is typically distinct and separate in time from the release of that refrigerant into the environment from a leak during the normal operation of the appliance. As discussed elsewhere in this document, while there may be a release of refrigerant from a leaking appliance, all appliances leak and such leaks typically occur during normal operations. While there may be cases where there would be an ongoing release of refrigerant such that the refrigerant added to the system is contemporaneously released and the technician knows about such a release during the servicing event (e.g., when refrigerant is added to equipment that is audibly or visibly leaking during the servicing event), the EPA does not have any information to suggest that this is the norm. Accordingly, the EPA does not have any information to suggest that these situations are common enough to sustain an extension of the leak repair requirements to equipment using solely substitute refrigerants under the text of section 608(c).

The EPA also disagrees with the commenters suggesting that inclusion of the term “maintaining” in section 608(c) provides the agency authority to apply the leak repair provisions to appliances containing only substitute refrigerants. Contrary to the position that the EPA took in the 2016 Rule (81 FR 82291), the EPA concludes in this action that the term “maintaining” in

¹⁸ Maintain, MERRIAM-WEBSTER ONLINE DICTIONARY, <https://www.merriam-webster.com/dictionary/maintain> (last visited Nov. 15, 2018).

section 608(c) is not meant to encompass the normal operation of an appliance. Rather, as discussed in Section II above, the EPA believes it is reasonable to interpret this term in light of the other terms in section 608(c) (servicing, repairing, or disposing), all of which refer to activities that are distinct from the normal, day-to-day operation of the equipment. The EPA also disagrees with the commenters suggesting that failure to repair leaks is a failure to maintain equipment that necessarily results in releases that violate the venting prohibition. The text of section 608(c)(1) prohibits knowing releases of ODS by “any person, in the course of maintaining, servicing, repairing, or disposing” of appliances, and section 608(c)(2) extends that prohibition to knowing releases of substitute refrigerants “by any person maintaining, servicing, repairing, or disposing of” an appliance. Thus, section 608(c) requires an actor (e.g., a technician) to conduct one of a particular set of actions on an object (an appliance) in order for the venting prohibition to apply. The four terms “maintaining, servicing, repairing, or disposing” included in section 608(c) are all forms of transitive verbs that express an action by an actor (“any person”) on an object (an appliance containing or using refrigerant). Interpreting the term “maintaining” as encompassing the lack of maintenance or failure to repair leaks unreasonably transforms the prohibition against knowing releases during certain defined activities into a requirement to undertake those activities. In the EPA’s view, it is not reasonable to interpret the term “maintaining” to encompass normal, day-to-day operations of an appliance or to encompass failure to maintain an appliance. Rather, the EPA concludes that the term “maintaining” as used in section 608(c) should be interpreted to refer to work done on an appliance in furtherance of its continued functioning or to preserve its existing state of repair. (*See, e.g., The American Heritage College Dictionary*, 4th ed. (Houghton Mifflin, 2002), at 834 (listing definitions of “maintain” which include “to keep in an existing state; preserve or retain” and to “keep in a condition of good repair or efficiency”); *Merriam Webster’s Collegiate Dictionary*, 11th ed. (Merriam Webster Inc., 2003), at

749 (definitions of “maintain” include “to keep in an existing state (as of repair, efficiency, or validity): preserve from failure or decline (<~ machinery>”).

The EPA disagrees with the comments that its historic interpretation, to which it returns today, is inconsistent with the purpose of section 608(c). As explained in Section II above, a general analysis of whether a provision leads to reductions in ODS emissions would typically be undertaken under section 608(a). In contrast to section 608(a), which requires regulations to reduce emissions of ODS to the lowest achievable level, the agency interprets section 608(c) as focusing on limiting particular types of emissions of ODS and substitute refrigerants – those from knowing releases, venting, and disposal that occur in the course of maintaining, servicing, repairing, or disposing of appliances. The agency views its return to its historic interpretation in this action as consistent with the purposes of section 608(c) because it better focuses the regulations on knowing releases that occur during the activities listed in 608(c). In this interpretation it is not the quantity of refrigerant released, but rather the circumstances of the release that determine whether the venting prohibition applies. The EPA concludes that its legal authority under section 608(c)(2) does not extend to emissions of substitute refrigerants that do not occur during one of those four activities. Thus, the agency agrees with the comments stating that the release must occur during the service, maintenance, repair, or disposal of an appliance to be prohibited under the venting prohibition.

A couple of commenters request that the EPA clarify how rescinding the 2016 Rule’s interpretation -- that “topping off” a leaking appliance could in some circumstances constitute a knowing release and violate the venting prohibition -- affects appliances containing ODS refrigerant. Noting that the proposed rule states that the Agency was not modifying any ODS provisions, the commenters state that the EPA should rescind this interpretation as it applies to ODS appliances as well. The EPA responds that the agency is rescinding this interpretation for

all appliances, regardless of the type of refrigerant used. The original interpretation that topping off an appliance was not a knowing release was in the context of appliances containing ODS refrigerant. (58 FR 28672). Thus, reverting back to that original interpretation means it applies to appliances using ODS refrigerant, as well as to those using non-ODS refrigerants. We further note that this return to the original interpretation does not change the required leak repair practices in §82.157 for ODS equipment, as those requirements reduce the emissions of ODS and maximize the recapture and recycling of ODS as provided in section 608(a). In addition, the agency is not changing the requirement under §82.154(a)(2)(i) that ODS releases only qualify for the *de minimis* exemption if certain regulatory practices, including those in §82.157, have been observed.

C. Comments on whether section 608(a) provides any statutory authority to regulate substitute refrigerants

The EPA requested comment on whether, as a matter of statutory interpretation, the agency can rely on section 608(a) for the issuance of any of the subpart F requirements (leak repair or otherwise) for substitute refrigerants, including those provisions for which there is demonstrably a connection between the regulatory requirement and the purposes of section 608(a) to reduce use and emission of class I and II substances to the lowest achievable level and maximize the recapture and recycling of such substances. As the EPA discussed in the proposal, Congress specifically required the EPA in section 608(a) to issue regulations for class I and class II substances that would meet certain statutory purposes set forth in that section. But Congress did not list substitutes for coverage by those requirements. In contrast, section 608(c) does expressly apply to substitute refrigerants. This difference between section 608(a) and 608(c) could be interpreted as a manifestation of Congressional intent to distinguish between the

categories of substances covered in these respective provisions and to only convey authority to address substitute refrigerants under 608(c), not 608(a), which is an issue on which the EPA solicited comment.

Three commenters state that 608(a) is not ambiguous with respect to the extent to which Congress authorized the EPA to issue refrigerant management regulations for substitutes. The commenters state that Congress did not provide any explicit grant of authority in section 608(a) for the EPA to establish a regulatory program for substitutes. The fact that Congress so clearly provided such authority for ODS demonstrates that no such authority exists for substitutes. One of those commenters concludes that the EPA lacks the discretion it claims to regulate non-exempt substitutes in any manner.

Other commenters state that the scope of 608(a) is ambiguous and that to the extent that the EPA determines that the statutory language is ambiguous, then the EPA is free to make a policy decision to resolve the ambiguity. These commenters state that there are many policy rationales that support regulating non-ODS substitutes to an equal extent as the regulation of ODS, including cost savings to owners and operators by encouraging proper leak management, reducing harm to the atmosphere, and reduced public safety hazards.

The EPA responds that, as discussed in Section II.B. above, while section 608(a)(3) states that regulations under 608(a) shall include requirements that serve particular objectives and discretionary language about what requirements those regulations *may* include, it does not contain any more specific mandates about *how* the required objectives should be achieved. Thus, the EPA agrees with the comments that section 608(a) is ambiguous with respect to the EPA's authority to regulate substitute refrigerants to achieve those purposes. Given this ambiguity, the EPA interprets section 608(a) to provide authority to issue regulations that reduce the use and

emission of ODS to the lowest achievable level or that maximize the recapture and recycling of such substances, even if the regulations do not directly regulate ODS. Thus, as in the 2016 Rule, to the extent that the extension of certain subpart F requirements to non-exempt substitutes is necessary to achieve the purposes set forth in section 608(a)(3) (i.e., reducing the use and emission of ODS to the lowest achievable level or maximizing the recapture and recycling of such substances), the EPA concludes that the extension is within the ambit of its authority under section 608(a). However, the EPA disagrees with the comments suggesting that 608(a) is so ambiguous as to allow the agency to employ various policy rationales such as cost savings to the owners and operators, encouraging proper leak management, reducing harm to the atmosphere, and reducing public safety hazards when considering whether the extension of the subpart F requirements to substitute refrigerants is supported by 608(a). The EPA interprets section 608(a) to authorize the extension of those requirements only if they meet the explicit purpose(s) of that section, including reducing the use and emission of ODS to the lowest achievable level and/or maximizing the recapture and recycling of such substances. For the reasons discussed in Section II of this document, the EPA concludes that section 608(a) does not support the 2016 extension of the leak repair requirements in §82.157 to non-exempt substitute refrigerants but does support the extension of the non-leak repair requirements to such refrigerants.

Some commenters state that 608(a) does not provide authority to require repairing leaks of non-ODS substitutes because repairing an appliance containing a substitute will not reduce the use or emission of ODS nor maximize the recapture and recycling of ODS.

The EPA responds that, as described in greater detail in Section II above, the agency interprets CAA section 608(a) to support the 2016 Rule's extension of the existing subpart F requirements to appliances using only non-exempt substitute refrigerants only if that extension is

necessary to serve the purposes of 608(a). The EPA agrees with these commenters that applying the leak repair provisions to appliances containing only substitute refrigerants is not necessary to reduce ODS emissions or to promote the recapture and recycling of ODS. This is especially true since the EPA is retaining the non-leak repair provisions in subpart F for non-exempt substitutes.

Three commenters state that the text of 608(a) demonstrates that Congress intended the section to provide an incentive to transition to non-ODS substitutes. These commenters state that rescinding the leak repair provisions for non-exempt substitutes will restore that incentive, which will minimize use and emission of ODS. Likewise, one commenter states that applying the refrigerant management requirements to substitutes will disincentivize the development of new substitutes.

While the EPA is rescinding the leak repair provisions for non-exempt substitutes based on its determination that the extension of these provisions to such substitutes exceeded its statutory authority because it was based on an unreasonable interpretation of that authority, the EPA disagrees that section 608 drives the development of or transition to substitutes. Section 608 is one of several complementary measures in Title VI of the CAA that support the phaseout of class I and class II ODS. For example, in section 610 Congress banned certain products containing ODS and granted the EPA authority under to ban others. In section 611, Congress required the EPA to promulgate labeling requirements for certain products containing or manufactured with ODS. These aspects of Title VI more directly establish incentives and support the transition to ODS alternatives than the provisions in section 608, which establish a national recycling and emission reduction program. Further, the production and import of class I ODS has been phased out and the production and import of class II ODS is well underway. Allowances for production and import of the most common HCFC refrigerant, HCFC-22, are set to decline to

zero in 2020 (§§82.16, 82.15(e)). In addition, use restrictions issued pursuant to section 605(a) prohibit use of newly produced HCFC-22 in equipment manufactured on or after January 1, 2010 (§82.15(g)(2)). The section 605(a) use restrictions further prohibit use of newly produced HCFC-123 in equipment manufactured on or after January 1, 2020 (§82.15(g)(4)). While used HCFCs are not subject to these restrictions, the HCFC production and import phaseout and the restrictions on use of newly produced HCFCs provide clear market signals regarding future availability of HCFC refrigerants.

Thus, the provisions of Title VI, taken together, provide a variety of incentives for the transition from ODS to substitutes. In section 608(c)(2), however, Congress indicated a concern about the potential environmental impacts of substitute refrigerants by extending the venting prohibition to substitute refrigerants, unless the EPA determines that for particular substances such releases do not pose a threat to the environment.

To the extent that the extension of subpart F regulatory requirements to non-exempt substitute refrigerants is supported by section 608(c), that extension provides clarity and certainty to owners, operators, and people servicing, maintaining, repairing, or disposing of air conditioning and refrigeration equipment of how they can avoid violating the venting prohibition. Such clarity and certainty with regards to the venting prohibition are consistent with the EPA's overall efforts under Title VI to facilitate a smooth transition from ODS to substitute refrigerants. Thus, while facilitating a smooth transition to substitutes is not a basis for this action, the EPA disagrees with the comments suggesting that applying subpart F provisions to non-exempt substitute refrigerants reduces incentives for the development of or transition to substitutes.

The EPA solicited comment regarding scenarios where failure to apply consistent

standards for the non-leak repair provisions in Subpart F could lead to emissions of ODS. These scenarios include contamination caused by the improper handling of non-exempt substitute refrigerant, equipment failure due to mixed or contaminated refrigerant, venting of contaminated refrigerant due to cost of handling and reclaiming refrigerant in appliances, and venting due to an individual misidentifying an ODS refrigerant as a substitute refrigerant when performing maintenance on an appliance. (83 FR 49340).

One commenter states that the EPA provided no technical basis to warrant the extension of the non-leak repair subpart F requirements to substitutes. Specifically, the commenter states that the agency did not provide any data concerning frequency of refrigerant contamination, equipment failures due to contamination, and misidentification. The commenter states that its members, including one that has 75 separate facilities, could not identify any examples of substitute contamination or mismanagement. Multiple other commenters state that a single, uniform, and consistent management system for ODS and substitute refrigerants makes refrigerant management easier for technicians maintaining, servicing, or disposing of refrigeration equipment, and increases the chances that technicians will not release class I or class II refrigerant. Some of these comments were limited to the non-leak repair provisions of Subpart F and some were inclusive of the leak repair provisions. Several refrigerant technicians and reclaimers in their comments relay instances where a layperson has mixed refrigerant or attempted an improper retrofit or other maintenance and caused the release of refrigerant. Other commenters state that refrigerant mixing would increase if the sales restriction for non-exempt substitutes were rescinded.

The EPA's understanding of the industry indicates that technician errors can result in refrigerant mixing, and catastrophic equipment failure as a result. The agency's understanding is

consistent with and supported by information that stakeholders have provided to the agency, including information submitted during the development of this rulemaking and included in the record for this rule. Moreover, the EPA has supporting evidence from enforcement actions pertaining to R-22a and reported reclamation data that mixing does occur. Many entities including refrigerant reclaimers, equipment manufacturers, technicians, and equipment owners have notified the agency that mixed refrigerant is becoming increasingly prevalent as the number of substitutes for ODS in use increases. The EPA finds credible the information provided by commenters who identified examples of refrigerant releases related to mixing of refrigerants or attempted improper retrofit or other maintenance.

Evidence of refrigerant mixing comes from data reported to the EPA by reclaimers. The amount of mixed refrigerant being received by reclaimers has been increasing since 2012 by total volume or since 2013 as a percentage of the amount of refrigerant sent for reclamation. These data support the anecdotal statements and comments made by individual reclaimers and technicians that they are encountering more mixed refrigerant. The data are available on the EPA's website and some of the comments and statements are in the docket to this rule.¹⁹ The EPA also expects that the reported data are an underestimate of the total amount of mixed refrigerant since mixed refrigerant is often vented or not sent to reclaimers, and thus those amounts are unavailable to be reported.

In addition, as discussed in the 2016 Rule, the use of R-22a (a non-exempt substitute refrigerant) as a replacement for R-22 (an ODS refrigerant) indicates to the EPA that people are purchasing their own refrigerant and adding it to systems with ODS refrigerant. R-22a, which is propane, in some cases mixed with isobutane and an odorant, has been marketed as a "drop-in"

¹⁹ Mixed Refrigerant Received Totals by Year (Pounds), available at <https://www.epa.gov/section608/summary-refrigerant-reclamation-trends>.

(or more appropriately termed a “retrofit”) replacement for existing equipment, typically residential split air-conditioning systems, which are designed for use with HCFCs or HFCs. The EPA has listed propane and R-22a as well as all ASHRAE Flammability Class 3 Refrigerants as unacceptable for retrofit in residential and light commercial unitary split AC and heat pumps under the Significant New Alternatives Policy program. The Agency learned through its enforcement actions against Enviro-Safe and Northcutt, two distributors of R-22a, and through other investigations, that R-22a has been sold to both consumers and certified technicians. Often the buyers are not aware there is a difference between R-22 and R-22a, or even that R-22a is flammable. As a result, appliances have exploded, resulting in the release of refrigerant that consists in part of ODS, and people have been injured. Together, this data from reclaimers and information on R-22a support the view that applying the sales restriction and technician certification requirements to non-exempt substitute refrigerants serves the purposes of section 608(a) because it prevents the mixing and subsequent release of ODS refrigerants, including in mixtures with substitute refrigerants.

Two commenters state that cross-contamination of ODS and non-exempt substitute refrigerant does not occur because they operate at different pressures so there are no concerns that ODS will be emitted if there are no controls on substitute refrigerants. In contrast, another commenter states that many class II (and in some cases, class I) substances can be used interchangeably with HFCs and other substitute refrigerants, though sometimes requiring equipment modification. Other commenters state that ODS and ODS substitutes can be used interchangeably in many applications, and service technicians are likely to encounter both types of refrigerants. In California, approximately 17% of reporting facilities have both ODS and HFC systems.

The EPA disagrees with the comment saying that cross-contamination of ODS and non-exempt substitute refrigerant cannot occur because they operate at different pressures. R-22 has been the dominant ODS refrigerant and is being replaced with several non-exempt substitute refrigerants that operate at similar pressures (e.g., R-404A, R-407A, and R-407C). In those situations, cross-contamination of ODS and substitute refrigerant, refrigerant mixing, and related releases of ODS can occur. The EPA agrees with the comments that ODS and substitute refrigerants have inappropriately been used interchangeably. The EPA frequently hears from industry stakeholders, similar to comments received on the proposal, that technicians are “topping off” R-22 systems with non-exempt substitute refrigerant, particularly during the final stages of the R-22 phaseout which has seen price spikes. Improper retrofits or refrigerant mixing can occur even when the operating pressure is different, especially when appliances are serviced by untrained personnel. This mixing of refrigerant with different operating pressure makes catastrophic equipment failure and release of the refrigerant charge even more likely.

A few commenters state that eliminating the reclamation requirement for non-exempt substitute refrigerants would set in motion market forces that would ultimately result in an increase in ODS emissions. Specifically, the commenter states that technicians would resell recovered substitute refrigerants to other customers rather than sending them for reclamation. This would reduce the profitability and ability of reclaimers to reclaim the ODS refrigerants that they do receive. The comment explains that reclaimers might stop accepting ODS refrigerants and technicians would then either resell contaminated refrigerant, vent the ODS refrigerants to the atmosphere, or pay for proper disposal, likely in that order.

The EPA agrees with the comments that rescinding the reclamation requirements for non-exempt substitute refrigerants would likely result in an increase in ODS emissions. As discussed

further in Section II.D. of this document, the reclamation requirements for non-exempt substitute refrigerant prohibit the resale of mixed used refrigerant and support a market-based process from the technician or recovery company to the refrigerant distributor and ultimately the reclaimer to return used ODS and non-exempt substitute refrigerant to the same purity level as newly produced refrigerant. The requirement that recovered ODS and non-exempt substitute refrigerant be reclaimed to meet industry purity standards before being resold, with limited exceptions, implements the direction in section 608(a)(3) to reduce the use and emission of ODS to the lowest achievable level, and to maximize the recapture and recycling of such substances, as explained further in Section II.D. of this document. The EPA concludes that section 608 provides the EPA authority for the 2016 Rule's extension of the reclamation requirements to substitute refrigerants and is therefore not finalizing a rescission of the reclamation standards.

D. Comments regarding how holistic interpretations of section 608 and other sections of Title VI may relate to EPA's authority to regulate substitute refrigerants

One commenter states that the EPA must read section 608 as a whole, consistent with giving meaning to the full statutory provision. This commenter further asserts that doing so shows that Congress intended to only stagger requirements for ODS and non-exempt substitutes, with ODS requirements applying starting in 1992 and those for substitutes starting in 1995, not to create a more limited regulatory program for substitutes. A few commenters state that section 608(a) is broader than 608(c) in that it provides the EPA the authority to regulate "use" of an ODS while 608(c) is limited to service, maintenance, repair, or disposal of an appliance. These commenters state that this difference in wording indicates that Congress intended for different requirements to apply to ODS and substitutes. Another commenter states that because section 608(c)(2) extends to the "knowing release" or the disposal of substitutes, it provides broader

legal authority than exists within the Administrator's authority to establish standards regarding the "use and disposal of class I substances" under CAA section 608(a), offering the example that CAA section 608(c) authority extends to any "release" whether by means other than use or disposal.

The EPA responds that the agency has appropriately considered the authority granted to the agency under section 608, considering that section as a whole, in reaching the interpretations supporting this action. Based on that consideration, the EPA disagrees that reading 608(a) and (c) together indicates that Congress intended simply to stagger similar requirements for ODS and substitutes. Were this the case, Congress could have inserted requirements to regulate substitutes in 608(a) that were effective in 1995, in a similar manner to the way it made the venting prohibition effective for substitutes effective November 15, 1995 in 608(c)(2). But it did not. While Congress chose to stagger the requirements in 608(a) for class I and class II ODS, with section 608(a)(1) requiring the EPA to issue certain regulations for class I substances by January 1, 1992, and 608(a)(2) requiring other regulations for class I and class II substances by November 15, 1994, it did not include such a staggered date for substitutes. Nor did it even mention substitutes in these provisions. Similarly, while Congress staggered the application of the venting prohibition in section 608(c) to ODS and substitutes, that only indicates that Congress intended for the venting prohibition to apply equally to both substitutes and ODS after November 15, 1995. As explained in greater detail in Section II of this document, the EPA concludes that, reading section 608 as a whole, its authority to address substitutes under section 608 is more limited than its authority to address ODS.

The EPA agrees with the comment that that the verbs used in section 608(a) suggest a broader scope of authority than those in 608(c). As noted in Section II above, sections 608(a)(1)

and (2) broadly authorize regulations for the “use and disposal” of ODS, and section 608(a)(2) clarifies that this “includ[es] use and disposal during service, repair, or disposal” of appliances. The term “includ[es]” in 608(a)(2) indicates that “use and disposal” can occur during activities other than “service, repair, or disposal.” These are three of the four activities mentioned in section 608(c), which prohibits knowing releases “in the course of maintaining, servicing, repairing, or disposing” of appliances. As explained elsewhere in this document, the EPA interprets the fourth term, “maintaining,” as similar in scope to “servicing, repairing, or disposing” and to refer to work done on an appliance in furtherance of its continued functioning or to preserve its existing state of repair. Thus, the EPA concludes that Congress envisioned that the regulations under section 608(a) would affect a broader range of activities than those under section 608(c). In addition, as described in greater detail in Section II above, the EPA now reads sections 608(a) and (c) together to determine that its authority is more limited for substitute refrigerants than for ODS. However, the EPA does not believe that this means none of the same provisions can be applied to ODS and substitute refrigerants. Rather, the EPA believes the same provision can apply to both ODS and substitute refrigerants where the agency can reasonably conclude that extending a requirement that previously only applied to ODS refrigerants to substitute refrigerants is an appropriate application of its authority under either section 608(a) or (c), under the interpretive framework set forth in Section II above. The EPA disagrees with the comment that 608(c)(2) is broader than 608(a) because it extends to “any release.” As discussed in Section II, the releases prohibited under section 608(c)(2) are limited to those that occur “in the course of maintaining, servicing, repairing, or disposing” of appliances, a narrower range of activities than the broad range of “use and disposal” activities featured in section 608(a). Two commenters state that reading sections 608 and 612 together indicates that Congress sought to

avoid solving one problem (ozone depletion) only to create another, in this case GHG emissions. They argue that given the policy choices that are embodied in section 612—to replace ODS with substitutes that lower the overall risks to human health and the environment—and the fact that HFCs have not been exempted from the venting prohibition, the EPA should take an expansive read of the Agency’s authority to regulate substitutes.

The EPA responds that CAA sections 612 and 608 are distinct provisions, and the EPA does not believe it is reasonable to interpret the policy objectives of section 612 as expanding the agency’s ability to regulate substitutes under section 608 beyond the authority conveyed in the text of 608 itself. As explained in Section II above, because the agency has determined that the 2016 Rule’s extension of the leak repair requirements to appliances using only non-exempt substitute refrigerant exceeds its statutory authority, it is rescinding that extension.

Another commenter states that reading 608 and 609 together indicates that Congress was capable of clearly indicating when it intended for ODS and substitutes to be treated the same, and that it chose not to do so in 608. In support of this argument, the commenter points out that the definition of refrigerant in section 609 includes class I and class II substances, as well as any substitute substance beginning November 15, 1995. The EPA responds that as described in greater detail in Section II above, it interprets its authority to address substitutes under section 608 as more limited than its authority to address ODS, based in part on the inclusion of the term “substitute” in section 608(c)(2) but not sections 608(a)(1) and (2). Section 609 is a distinct provision from section 608 and is highly specialized, being focused on motor vehicle air conditioners, which were one of the first uses to transition to substitutes. The EPA believes this comment provides additional support for the agency’s conclusion that its authority to regulate substitutes under section 608 is not as extensive as its authority to regulate ODS. However, the

EPA does not believe that section 609 should be read to suggest that the agency has *no* authority to regulate substitute refrigerants under section 608, as section 608(c), like section 609, does mention both ODS and substitute refrigerants and applies the venting prohibition to both beginning November 15, 1995. Nor does anything in section 609 indicate whether certain refrigerant management requirements for substitutes might be necessary to achieve the purposes of section 608(a), which covers a broad range of uses, with widely varying timelines for the transition from ODS. For the reasons described further in Section II, the agency continues to reasonably interpret both section 608(a) and (c) to provide some authority to regulate substitute refrigerants, to the extent consistent with the text of those provisions, and this action appropriately aligns its regulation of substitute refrigerants with its statutory authority under 608.

One commenter states that the name of Title VI (Stratospheric Ozone Protection) indicates that Congress intended to only address stratospheric ozone depletion, not GHG emissions. The EPA responds that this action addresses non-exempt substitutes without distinction as to whether they are GHGs and indeed without distinction as to any other attribute. Further, the text of 608(c) demonstrates that Congress was addressing both class I and class II refrigerants and substitute refrigerants. Congress specifically applied the venting prohibition to substitutes, and, as indicated by the provision that allows the EPA to exempt substitute refrigerants from the venting prohibition if it determines that venting, release, or disposal of such substitute does not pose a threat to the environment, specifically contemplated that threats to the environment other than stratospheric ozone depletion would be considered in implementing the venting prohibition under section 608(c)(2). In addition, the Supreme Court has recognized the “wise rule that the title of a statute and the heading of a section cannot limit the plain meaning of the text”; while they may provide a “short-hand reference to the general subject matter

involved,” they are not “necessarily designed to be a reference guide or a synopsis.” *Bhd. of R.R. Trainmen v. Balt. & O.R. Co.*, 331 U.S. 519, 528-29 (1947) (internal citations omitted). Thus, the EPA does not interpret the title of Title VI as precluding it from regulating substitute refrigerants, where such regulation is otherwise authorized under the Act. Moreover, as described in Section II above, in re-assessing the scope of its authority for the 2016 Rule’s extension of subpart F provisions to substitute refrigerants, the EPA has considered whether the extension of those provisions serve the purposes of section 608(a) by maximizing recycling or recovery of ODS and/or reducing emissions of ODS to the lowest achievable level and has determined that the extension of those provisions with the exception of the leak repair requirements met such purposes.

Three commenters cite section 602(e) for the proposition that Congress did not intend to address GHGs in any of Title VI. That section requires the EPA to publish the global warming potential (GWP) of class I and class II substances but states that such required publication “shall not be construed to be the basis of any additional regulation under this chapter.” The EPA responds, as above, that this action addresses non-exempt substitutes without distinction as to whether they are GHGs and indeed without distinction as to any other attribute. Regardless, section 602(e) does not mention substitutes. Section 602(e) relates to the GWPs of ODS, and neither directs the publication of GWPs of substitutes nor makes any statement regarding regulation of such substances. In any event, the EPA is not regulating either ODS or substitutes on the basis of their GWP in this action. Furthermore, the EPA did not rely on section 602 as authority for the extension of subpart F to non-exempt substitutes in 2016, nor is it relying on section 602 for the action being taken in this rulemaking. In the 2016 Rule, the EPA extended the subpart F regulations to all substitute refrigerants that are not exempt from the venting

prohibition irrespective of their GWPs. In this action, the agency's decision to rescind the 2016 Rule's extension of the leak repair requirements to equipment containing only non-exempt substitute refrigerants is based on the conclusion that the extension exceeded the agency's authority under section 608 because it was based on an unreasonable interpretation of that authority.

E. Comments regarding whether the agency has provided a reasoned basis for this action

One commenter states that the EPA's reinterpretation of its legal authority fits squarely within the authority that supports an agency's ability to change its policy (citing *Chevron, U.S.A., Inc. v. NRDC, Inc.*, 467 U.S. 837, 863-64 (1984)). Some commenters state that the EPA has not offered an adequate rationale for this action and fault the agency for not providing substantial evidence for changing its previous findings. These commenters state that when changing policy, "a reasoned explanation is needed for disregarding facts and circumstances that underlay or were engendered by the prior policy" (citing *FCC v. Fox Television Stations*, 556 U.S. 502, 516 (2009)). Another commenter states that the EPA failed to provide the requisite "good reasons" for its change (citing *id.* at 515). Some of these commenters state that "an agency changing its course by rescinding a rule is obligated to supply a reasoned analysis for the change beyond that which may be required when an agency does not act in the first instance" (citing *Motor Vehicle Mfrs. Ass'n v. State Farm Mutual Auto Ins. Co.*, 463 U.S. 29, 42 (1983)) and argue that the EPA has failed to provide a sufficient justification for the change. Other commenters state that the EPA ignores the fact that harmful emissions would increase under today's action, arguing that this shows that the EPA has failed to "examine the relevant data and articulate a satisfactory explanation for its action including a rational connection between the facts found and the choice made" (citing *State Farm*, 463 U.S. at 43)).

The EPA disagrees that the agency has failed to provide an adequate rationale for this regulatory change. To begin, we note that the agency “obviously ha[s] broad discretion to reconsider a regulation at any time,” *Clean Air Council*, 862 F.3d at 8-9, as long as it provides a reasoned explanation for its action. *See, e.g., Encino Motorcars*, 136 S.Ct. at 2125. As discussed elsewhere in this preamble, including in detail in Section II above, the reason for today’s action is not a change in policy, but rather a determination that the agency exceeded the scope of its legal authority under the CAA in the 2016 Rule by extending the leak repair provisions to equipment containing only non-exempt substitute refrigerants based on an unreasonable interpretation of its authority. The EPA has provided a reasoned explanation of its current interpretation of its legal authority in Section II of this document and explained why that interpretation requires the rescission of the 2016 extension of the leak repair requirements to substitute refrigerants. Even if the facts and circumstances that underlay that extension, or were engendered by it, could be cited to provide a policy basis for applying the leak repair requirements to non-exempt substitute refrigerants, the EPA cannot do that because doing so exceeds its legal authority. An agency may “justify its policy choice by explaining why that policy ‘is more consistent with statutory language’ than alternative policies,” *Encino Motorcars*, 136 S.Ct. at 2127 (quoting *Long Island Care at Home Ltd. v. Coke*, 551 U.S. 158, 175 (2007)), as the agency has done here. In addition, the agency does not agree with the commenters’ claim that it needs to provide more rationale for this change than if it were acting in the first instance. *See Encino Motorcars*, 136 S.Ct. at 2126 (“When an agency changes its existing position, it ‘need not always provide a more detailed justification than what would suffice for a new policy created on a blank slate.’”) (quoting *FCC v. Fox Television Stations, Inc.*, 556 U.S. 502, 515 (2009)). However, even if it did, the EPA believes that the detailed description in Section II of

this document would satisfy that standard, especially considering that it is undertaking this action to rescind a regulatory provision that exceeds its statutory authority. Accordingly, the EPA agrees with the comments that stated this action is well within the agency's authority to change existing regulatory requirements.

Two commenters state that rescinding the leak repair provision for non-exempt substitutes is arbitrary and capricious because it would result in more of the pollution the CAA seeks to limit and then goes on to discuss the forgone annual GHG emissions reductions. They also state that the EPA has not explained how the new interpretation "is rationally related to the goals of the statute."

The EPA does not agree that this action will result in increased emissions of the pollution that section 608 seeks to limit, nor that this action is not rationally related to the goals of the statute. With respect to section 608(a), that section focuses on reducing emissions of ODS. The EPA has been implementing regulations under section 608(a) of the CAA for decades and has been appropriately reducing the use and emission of ODS refrigerants through those regulations. As discussed in Section II above, the EPA has determined that leak repair provisions as applied to appliances containing only substitute refrigerants are not needed to reduce the use and emissions of ODS refrigerants or to maximize the recapture and recycling of ODS refrigerants, especially if the other subpart F provisions are in place for non-exempt substitutes. As explained in Section II of this document, the EPA concludes that this action is necessary because the 2016 Rule exceeded its statutory authority. With respect to section 608(c), the agency interprets section 608(c) to apply only to knowing releases that occur in the course of maintaining, servicing, repairing, or disposing of appliances. Because operational leaks of substitute refrigerants that would typically trigger the leak repair provisions do not occur during one of

those four activities, the EPA does not agree that this action will result in increased emissions of the pollution that section 608(c) seeks to limit.

IV. Extension of the January 1, 2019 Compliance Date for the Appliance Maintenance and Leak Repair Provisions for Non-Exempt Substitute Refrigerants

The 2016 Rule established a January 1, 2019 compliance date for the leak repair provisions. In establishing that compliance date, the agency had found that two years was sufficient time for owners and operators of appliances with 50 or more pounds of refrigerant to learn about the updated requirements and prepare for compliance. (81 FR 82343). The 2018 proposal for this action explained that the EPA was evaluating whether that compliance date remained viable or whether it should be extended. The EPA proposed to take final action to extend the compliance date in §82.157(a) for appliances containing only non-exempt substitute refrigerants if final action on the substantive portions of the proposed rule would not occur within a reasonable time before the existing compliance date. At that time, however, the EPA lacked specific information relating to the continued viability of the compliance date. The EPA requested comment on whether facilities would encounter practical difficulties in meeting the compliance date and stated that it intended to consider such information in deciding whether a compliance date extension was needed. The EPA further requested comment on any hardship that owners or operators of appliances would face if the compliance date was not extended and on any forgone benefits from such an extension. Finally, the EPA requested comment on its ability to finalize a compliance date extension.

Multiple commenters state that the EPA has the authority and should finalize an extension of the compliance date for the leak repair provisions as they apply to non-exempt substitutes. Several commenters state that the EPA should take a separate action to extend the

compliance deadline. They argue that the extension would help eliminate the burden of implementing compliance plans that are expected to no longer be needed when the rule is finalized, and that the separate rule should be issued as far ahead of December 31, 2018 as is possible to minimize any burdens. Commenters state that a 6- to 12-month delay in compliance would provide certainty to the industry. Some suggest that the extension should be a full twelve months, which would move the compliance date to January 1, 2020. However, several other commenters do not support an extension of the compliance date. They state that the 2016 Rule has been in effect since January 1, 2017, and that responsible regulated entities have planned for, invested in, and implemented changes necessary to comply with the applicable compliance deadlines, including January 1, 2019. Commenters state that the EPA has failed to provide any lawful basis for its proposal to delay the compliance date for the 2016 Rule.

The EPA considered the comments received and is not finalizing, in this rulemaking or separately, an extension to the January 1, 2019 compliance date for the application of the updated leak repair provisions to non-exempt substitute refrigerants. Even though some commenters thought an extension would reduce compliance costs, commenters also said that they were taking steps to comply and did not suggest that they would be unable to do so by January 1, 2019. With no information in the record to contradict the EPA's earlier findings that two years provided sufficient time to prepare for the January 1, 2019 compliance date, this final rule rescinds the leak repair requirements for appliances that contain non-exempt substitute refrigerants without any extension of that compliance date.

V. Economic Analysis

The EPA does not interpret section 608 to require it to consider costs and benefits or select the option with the best cost-benefit outcome. Section 608 does not explicitly address

whether costs or benefits should be considered in developing regulations under that section. Because the statutory language does not dictate a particular means of taking economic factors into account, if at all, the EPA has discretion to adopt a reasonable method for doing so. In this rule, the EPA has focused on the proper scope of the agency's authority to regulate.

The EPA is removing the requirement to comply with the leak repair provisions for appliances containing only non-exempt substitute refrigerants as the EPA has determined that the 2016 Rule's extension of those provisions to non-exempt substitute refrigerants exceeded the agency's statutory authority because it relied on an unreasonable interpretation of that authority. These provisions include requirements to repair equipment that is leaking above the regulatory threshold, along with the associated verification tests, leak inspections, and recordkeeping.

Details of the methods used to estimate the costs and benefits of this rule are discussed in the *Analysis of the Economic Impact of the Proposed 2018 Revisions to the National Recycling and Emission Reduction Program* in the docket. For a complete description of the methodology used in the EPA's analysis, see Section VI of the 2016 Rule (81 FR 82344) and the technical support document for the 2016 Rule which is also available in the docket for this action. While the EPA is providing this information to help the public understand the implications of this action compared to those considered in the economic analysis provided for the 2016 Rule, this action is not based on consideration of this information. Rather, this action is based on changes in the agency's legal interpretation of the scope of its statutory authority, as described in earlier sections of this document.

The EPA received several comments on the economic analysis included in the proposal. One commenter states that the EPA has the authority to take costs into consideration in finalizing the proposed rule even where the statute is silent, as confirmed by recent Supreme Court

decisions. That commenter, and numerous other commenters, state that failure to consider a relevant factor such as cost could make the agency action unlawful. The EPA agrees as a general matter that the agency has the authority to consider costs and benefits in regulations promulgated under section 608. (*See, e.g.*, 81 FR 82287). However, the consideration of costs and benefits described in the technical support documents in the docket are provided for purposes of transparency and to inform the public about the implications of this action relative to those described in the economic analysis provided for the 2016 Rule following agency guidance on assessing economic costs and benefits. This action rescinds the extension of requirements that exceeded the agency's statutory authority. The agency cannot impose obligations that exceed its statutory authority, irrespective of the costs and benefits associated with those requirements.

The EPA received numerous comments on the agency's analysis of the costs and benefits of the proposed rule. Several commenters state that it is arbitrary to not monetize the climate damages caused by the forgone emission reductions resulting from rescinding the extension of the leak repair provisions to non-exempt substitutes. Commenters also argue that: use of the Interagency Working Group's social cost of GHGs metric would have found that the climate damages of the proposed rule's forgone emissions reductions outweigh the estimated cost savings; it is arbitrary for the agency to not use any monetary value for fluorinated gases; and the EPA has previously found that HFCs endanger public health and welfare, so the agency cannot ignore GHG emissions which may result. Commenters also state that the EPA did not consider the effect that the proposed rule would have on operating costs of leaking systems, the shortened lifespans and increased equipment failures of systems allowed to operate with leaks, costs to companies that have created innovative products to facilitate compliance, and decreased yields of products generated through IPR processes. Some commenters also state that rescinding the leak

detection and repair program would result in higher costs for consumers as well as lost jobs in the air conditioning and refrigeration industry. Others state that compliance costs will increase as companies will need to ensure compliance with two different regulatory frameworks.

The EPA disagrees with the comments suggesting that it has ignored the increased GHG emissions, as it has quantified the expected increase in those emissions and reflected them in its analysis. Today's action is not based on a cost-benefit analysis of retaining or rescinding various provisions or on any other consideration of the costs and benefits of various policy options, but rather is focused solely on whether the agency had the statutory authority to extend elements of the refrigerant management program to non-exempt substitute refrigerants in the 2016 Rule. If the agency does not have legal authority to impose a requirement, it cannot do so, even if that action would be environmentally or economically beneficial. As noted above, the technical support documents in the docket are provided to inform the public about the implications of this action relative to those described in the economic analysis provided for the 2016 Rule. The EPA did not monetize the GHG effects in the economic analysis for the 2016 Rule, nor did it quantify the other types of indirect costs raised in the comments. The EPA observes that the 2016 Technical Support Document for the 2016 Rule notes that the final rule, "may result in other economic health and environmental benefits that are not quantified or monetized in this conservative analysis."²⁰ EPA is rescinding the 2016 Rule's extension of the leak repair requirements to equipment containing only non-exempt substitute refrigerants, therefore the unquantified benefits related to the extension of such requirements will no longer be attributable to the EPA's refrigerant management program. Consistent with the agency's overall approach

²⁰ Technical Support Document, Analysis of the Economic Impacts and Benefits of the Final Revisions to the National Recycling and Emission Reduction Program, September 2, 2016, pgs. 60-63.

taken in the 2016 Rule, the EPA is not monetizing the GHG effects of this action. Similarly, the EPA is not quantifying other indirect costs or distributional effects raised by commenters. While such analyses are not relevant to the basis for this action, for informational purposes we observe that estimating distribution effects such as job loss is very difficult to quantitatively assess: regulatory employment impacts can vary across occupations, regions, and industries; by labor demand and supply elasticities; and in response to other labor market conditions. Isolating such impacts is a challenge, as they are difficult to disentangle from employment impacts caused by a wide variety of ongoing, concurrent economic changes.²¹

One commenter states that the agency failed to quantify the extra ODS emissions that would result from unraveling the uniform regulatory framework for substitute refrigerants. Another commenter notes that the EPA's estimated forgone GHG emissions reductions do not consider appliances' end-of-life emissions. The EPA responds that, aside from the leak repair provisions, the EPA is retaining the extension of all the subpart F requirements to non-exempt substitute refrigerants, including the service practices, which require specific evacuation levels before disposing of an appliance or opening it for service, use of certified recovery equipment, and the technician certification requirement. In addition, the venting prohibition continues to apply to any knowing release, venting, or disposal of ODS or non-exempt substitute refrigerant by any person maintaining, servicing, repairing, or disposing of an appliance. As such, the EPA believes that end-of-life emissions of both ODS and non-exempt substitute refrigerant will not be affected by this final rule and were properly not included in the agency's analysis. Similarly, the

²¹ For a more detailed discussion, *see, e.g.*, Economic Analysis for Proposed Regulation of Persistent, Bioaccumulative, and Toxic Chemicals Under TSCA section 6(h), June 2019; Regulatory Impact Analysis for the Proposed Oil and Natural Gas Sector: Emission Standards for New, Reconstructed, and Modified Sources Review; EPA-452/R-19-001, August 2019.

EPA properly did not include any ODS emissions that would result from rescinding the non-leak repair subpart F provisions in its analysis for the final rule, as it is not rescinding the extension of those provisions.

Several commenters state that the compliance costs of the 2016 Rule were too great and presented an unnecessary burden. One commenter states that the \$24 million in annual savings likely underestimates the costs of the 2016 Rule. One commenter states that the EPA has not fully considered the impacts of the 2016 Rule on companies, institutions like hospitals and schools, and homeowners. With the transition to HFCs and HFOs, these entities have made costly investments in systems, but found higher repair costs. Likewise, this commenter states that the EPA did not consider the costs to install new IPR using non-ODS refrigerants.

The EPA responds that the costs of the 2016 Rule are outside the scope of this action, which is only to rescind the 2016 Rule's extension of requirements to non-exempt substitute refrigerants that exceeded the agency's statutory authority.

The EPA received many comments from the refrigeration and air conditioning industry that they have spent time and money to comply with the various provisions of the 2016 Rule. This includes costs associated with training staff, updating reporting and recordkeeping software, revising and republishing testing materials, and identifying affected appliances and individuals responsible to ensure compliance.

The EPA responds that the consideration of costs, including reliance interests, is not relevant to this action because the rescission here is based on the agency's lack of legal authority for the 2016 Rule's extension of the leak repair provisions, not on a cost/benefit analysis or policy considerations. As noted above, if the agency does not have legal authority to impose a requirement, it cannot do so, even if retaining that requirement would be economically beneficial

to some entities. However, the EPA notes that this action does not rescind the extension of most of the provisions that the commenters mention as a concern, including the leak repair provisions for appliances containing ODS, and therefore those investments will not be stranded as a result of this action. The EPA is rescinding the 2016 Rule's extension of the leak repair provisions as they apply to equipment containing only non-exempt substitute refrigerants, but it is retaining the extension of the other subpart F requirements, such as those pertaining to reclamation. This rule does not impose any new reporting or recordkeeping obligations.

One commenter states that the EPA failed to distinguish between private and social benefits, and that some costs of this action should not be counted if the regulated entity had the same or similar options available to identify and repair refrigerant leaks prior to the rulemaking. This comment referred specifically to the estimated \$15 million in refrigerant purchases that will be made as a result of this action by owners and operators of equipment with non-exempt substitutes.

As explained above, consideration of the costs and benefits of this action is not part of the rationale for this action and does not inform the EPA's decision on this rule. Rather, this action is based on the agency's determination that the 2016 Rule's extension of the leak repair provisions to non-exempt substitute refrigerants exceeded the agency's statutory authority. The EPA additionally notes that while it is true that the costs of purchasing additional refrigerant will fall on private entities, it is those same private entities that will secure a reduction in burden from the rescission of the leak repair requirements of the 2016 Rule as they apply to equipment containing only non-exempt substitute refrigerants. To present one of these effects without the other would fail to recognize the fact that the two effects are inextricably related. Further, it is standard practice for the EPA, consistent with the agency's *Guidelines for Preparing Economic*

Analyses,²² to consider increased direct outlays of money by regulated entities due to an action relative to a baseline without that action as costs of the action. Any entity that did not repair a leaking appliance that they would have been required to repair before today's action would need to allocate some part of its resources to buying replacement refrigerant that otherwise could have been used for capital investment, increasing production, or profit. Under the agency's Guidelines, it is appropriate to consider the replacement refrigerant costs as opportunity costs when preparing an economic analysis.

The agency agrees that the nature of private costs in this case merits a separate accounting in a discussion of the total benefits and costs of a rule. We have enumerated the costs of purchasing additional refrigerant separate from the deregulatory benefits.

VI. Statutory and Executive Order Reviews

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

This action is a significant regulatory action that was submitted to the Office of Management and Budget (OMB) for review. Any changes made in response to OMB recommendations have been documented in the docket. The EPA prepared an economic analysis of the costs and benefits associated with this action which is available in Docket Number EPA-HQ-OAR-2017-0629.

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

This action is considered an Executive Order 13771 deregulatory action. Details on the estimated cost savings of this final rule can be found in the EPA's analysis of the potential costs

²² The Guidelines can be found at <https://www.epa.gov/environmental-economics/guidelines-preparing-economic-analyses>. See Chapter 8 titled "Analyzing Costs."

and benefits associated with this action.

C. Paperwork Reduction Act (PRA)

The information collection activities in this rule have been submitted for approval to OMB under the PRA. The Information Collection Request (ICR) document that the EPA prepared has been assigned EPA ICR number 1626.17; Office of Management and Budget (OMB) Control Number: 2060-0256. You can find a copy of the ICR and supporting statement in the docket for this rule, and it is briefly summarized here. The information collection requirements are not enforceable until OMB approves them.

Through this rule, EPA is revising the leak repair provisions in §82.157 so they apply only to equipment using ODS refrigerants or a blend containing ODS refrigerant.

Respondents/affected entities: This rule removes reporting and recordkeeping requirements for owners and operators of appliances containing 50 or more pounds of a non-exempt substitute refrigerant and technicians servicing such appliances. Entities required to comply with reporting and recordkeeping requirements include technicians; technician certification programs; refrigerant wholesalers; refrigerant reclaimers; refrigeration and air-conditioning equipment owners and/or operators; and other establishments that perform refrigerant removal, service, or disposal.

Respondent's obligation to respond: Mandatory (40 CFR part 82, subpart F).

Estimated number of respondents: This rule reduces the estimated number of respondents from 861,374 under the 2016 Rule to 573,731.

Frequency of response: The frequency of responses vary from once a year to daily. Public reporting burden for this collection of information is estimated to vary from one minute to 9.4 hours per response, including time for reviewing instructions and gathering, maintaining, and

submitting information.

Total estimated burden: This rule reduces the estimated annual recordkeeping and reporting burden from 580,473 hours under the 2016 Rule to 434,359 hours. Burden is defined at 5 CFR 1320.3(b).

Total estimated cost: This rule reduces the estimated annual recordkeeping and reporting cost from \$34,627,298 under the 2016 Rule to \$24,625,892. There are no estimated annualized capital or operation and maintenance costs associated with the reporting or recordkeeping requirements.

An agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a currently valid OMB control number. The OMB control numbers for the EPA's regulations in 40 CFR are listed in 40 CFR part 9.

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 rule does not impose any new regulatory requirements. It is deregulatory in that it removes required leak repair and maintenance practices and associated recordkeeping for appliances that do not contain any ODS refrigerant. We have therefore concluded that this action will relieve regulatory burden for directly regulated small entities.

E. Unfunded Mandates Reform Act

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

F. Executive Order 13132: Federalism

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

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

This action does not have tribal implications as specified in Executive Order 13175. 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 Risks and Safety Risks

This action is not subject to Executive Order 13045 because it is not economically significant as defined in Executive Order 12866. The EPA has not conducted a separate analysis of risks to infants and children associated with this rule.

I. Executive Order 13211: Actions that Significantly Affect Energy Supply, Distribution, or Use

This action is not a “significant energy action” because it is not likely to have a significant adverse effect on the supply, distribution, or use of energy.

J. National Technology Transfer and Advancement Act (NTTAA)

This rulemaking does not involve technical standards.

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

The EPA believes that it is not feasible to quantify any disproportionately high and adverse effects from this action on minority populations, low-income populations and/or indigenous peoples, as specified in Executive Order 12898 (59 FR 7629, February 16, 1994).

L. Congressional Review Act (CRA)

This action is subject to the CRA, and the EPA will submit a rule report to each House of the Congress and to the Comptroller General of the United States. This action is not a “major rule” as defined by 5 U.S.C. 804(2).

List of Subjects in 40 CFR Part 82

Environmental protection, Air pollution control, Chemicals, Reporting and recordkeeping requirements.

Dated: February 26, 2020.

Andrew R. Wheeler,
Administrator.

For the reasons set forth in the preamble, the Environmental Protection Agency amends 40 CFR part 82 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.

2. Amend § 82.154 by revising paragraph (a)(2)(i) to read as follows:

§ 82.154 Prohibitions.

(a) * * *

(2) * * *

(i) The applicable practices in §§ 82.155 and 82.156 are observed, the applicable practices in § 82.157 are observed for appliances that contain any class I or class II refrigerant or blend containing a class I or class II refrigerant, recovery and/or recycling machines that meet the requirements in § 82.158 are used whenever refrigerant is removed from an appliance, the technician certification provisions in § 82.161 are observed, and the reclamation requirements in § 82.164 are observed; or

* * * * *

3. Amend § 82.157 by revising paragraph (a) to read as follows:

§82.157 Appliance maintenance and leak repair.

(a) *Applicability.* This section applies as of January 1, 2019. As of **[INSERT DATE 30 DAYS AFTER PUBLICATION IN THE FEDERAL REGISTER]**, this section applies only to appliances with a full charge of 50 or more pounds of any class I or class II refrigerant or blend containing a class I or class II refrigerant. Notwithstanding the use of the term refrigerant in this section, the requirements of this section do not apply to appliances containing solely substitute refrigerants. Unless otherwise specified, the requirements of this section apply to the owner or operator of the appliance.

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