

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 84

[EPA-HQ-OAR-2022-0430; FRL-8838-02-OAR]

RIN 2060-AV45

Phasedown of Hydrofluorocarbons: Allowance Allocation Methodology for 2024 and Later Years

AGENCY: Environmental Protection Agency (EPA).

ACTION: Final rule.

SUMMARY: The U.S. Environmental Protection Agency (EPA) is amending existing regulations to implement certain provisions of the American Innovation and Manufacturing Act. This rule establishes the methodology for allocating hydrofluorocarbon production and consumption allowances for the calendar years of 2024 through 2028. EPA is also amending the consumption baseline to reflect updated data and to make other adjustments based on lessons learned from implementation of the hydrofluorocarbon phasedown program thus far, including to: codify the existing approach of how allowances must be expended for import of regulated substances, revise recordkeeping and reporting requirements, and implement other modifications to the existing regulations.

DATES: This final rule is effective on September 18, 2023, except for amendatory instructions 3 and 13, which are effective October 1, 2024. The incorporation by reference (IBR) of certain publications listed in the rule is approved by the Director of the Federal Register as of July 20, 2023, and for certain other publications listed in the rule as of October 1, 2024.

ADDRESSES: The (EPA) has established a docket for this action under Docket ID No. EPA-HQ-OAR-2022-0430. All documents in the docket are listed on the <https://www.regulations.gov> website. Although listed in the index, some information is not publicly available, e.g., Confidential Business Information (CBI) or other information whose disclosure is restricted by statute. Certain other material, such as copyrighted material, is not placed on the internet and will be publicly available only in hard-copy form. Publicly available docket materials are available electronically through <https://www.regulations.gov> or in hard copy at the EPA Docket Center, Room 3334, WJC West Building, 1301 Constitution

Avenue NW, Washington, DC. The Public Reading Room is open from 8:30 a.m. to 4:30 p.m., Monday through Friday, excluding legal holidays. The telephone number for the Public Reading Room is (202) 566-1744, and the telephone number for the EPA Docket Center is (202) 566-1742.

FOR FURTHER INFORMATION CONTACT: John Feather, U.S. Environmental Protection Agency, Stratospheric Protection Division, telephone number: 202-564-1230; or email address: feather.john@epa.gov. You may also visit EPA's website at <https://www.epa.gov/climate-hfcs-reduction> for further information.

SUPPLEMENTARY INFORMATION:

Throughout this document, whenever "we," "us," "the Agency," or "our" is used, we mean EPA. Acronyms that are used in this rulemaking that may be helpful include:

ABI—Automated Broker Interface
 AD/CVD—Antidumping and Countervailing Duty
 AES—Automated Export System
 AHRI—Air-Conditioning, Heating, and Refrigeration Institute
 AIM Act—American Innovation and Manufacturing Act of 2020
 ANSI—American National Standards Institute
 ASHRAE—American Society of Heating, Refrigerating and Air-Conditioning Engineers
 CAA—Clean Air Act
 CBI—Confidential Business Information
 CBP—U.S. Customs and Border Protection
 CFR—Code of Federal Regulations
 CO₂—Carbon Dioxide
 CRA—Congressional Review Act
 DoC—Department of Commerce
 DBA—Doing Business As
 e-GGRT—Electronic Greenhouse Gas Reporting Tool
 EEI—Electronic Export Information
 EPA—U.S. Environmental Protection Agency
 EVe—Exchange Value Equivalent
 FR—Federal Register
 GHG—Greenhouse Gas
 GHGRP—Greenhouse Gas Reporting Program
 GWP—Global Warming Potential
 HAP—Hazardous Air Pollutants
 HCFC—Hydrochlorofluorocarbon
 HFC—Hydrofluorocarbon
 HFO—Hydrofluoroolefin
 HTS—Harmonized Tariff Schedule
 HVAC—Heating, Ventilation, and Air Conditioning
 ICR—Information Collection Request
 IEC—International Electrotechnical Commission
 IMO—International Maritime Organization
 IPCC—Intergovernmental Panel on Climate Change
 ISO—International Organization for Standardization
 ITN—Internal Transaction Number
 LCD—Liquid Carbon Dioxide
 MMTCO₂e—Million Metric Tons of Carbon Dioxide Equivalent
 MMTVe—Million Metric Tons of Exchange Value Equivalent

MTEVe—Metric Tons of Exchange Value Equivalent
 MVAC—Motor Vehicle Air Conditioning
 NAICS—North American Industry Classification System
 NATA—National Air Toxics Assessment
 ODS—Ozone-Depleting Substances
 OEM—Original Equipment Manufacturer
 OSHA—Occupational Safety and Health Administration
 PRA—Paperwork Reduction Act
 RACA—Request for Additional Consumption Allowances
 RFA—Regulatory Flexibility Act
 RIA—Regulatory Impact Analysis
 SISNOSE—Significant Economic Impact on a Substantial Number of Small Entities
 TCE—trichloroethylene
 TRI—Toxics Release Inventory
 UMRA—Unfunded Mandates Reform Act
 XPS—Extruded Polystyrene

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I. Executive Summary

A. Purpose of the Regulatory Action

EPA is finalizing amendments to existing regulations to implement

certain provisions of the American Innovation and Manufacturing Act of 2020 (AIM Act), as enacted on December 27, 2020. The Act mandates the phasedown of hydrofluorocarbons (HFCs), which are highly potent greenhouse gases (GHGs), by 85 percent by 2036. The Act directs EPA to implement the phasedown by issuing a fixed quantity of transferrable production and consumption allowances, which producers and importers of HFCs must expend in quantities equal to the amount of HFCs they produce or import. To continue implementation of the allowance program and the overall phasedown of HFCs, this rulemaking establishes the allowance allocation methodology for calendar years 2024 through 2028,¹ adjusts the consumption baseline based on updated data received and further reviews, and revises provisions to support implementation of, compliance with, and enforcement of statutory and regulatory requirements under the AIM Act’s phasedown provisions.

Under the AIM Act, by October 1 of each calendar year EPA must calculate and determine the quantity of production and consumption allowances for the following year. Using the procedure established through this rulemaking, the Agency intends to both issue allowances for the 2024 calendar year no later than October 1, 2023, and continue allocating annually, through the calendar year 2028 allowances, no later than October 1 of the previous year.

B. Summary of the Major Provisions of the Regulatory Action

Allowance Allocation Methodology: In this rule EPA establishes the methodology for allocating production and consumption allowances for calendar years 2024 through 2028. The Agency is basing these general pool allocations on entities’ market shares derived from the average of the three highest years of production and consumption, respectively, of regulated substances between 2011 and 2019. To be eligible to receive general pool allowances for 2024 through 2028 based on historic production and import activity, an entity must have produced or imported bulk regulated substances in 2021 or 2022. For participants in the new market entrant pool, EPA will determine for each former new market entrant a stand-in high three-year average based on the number of allowances allocated in 2023 and the percent reduction all general pool

allowance holders experience in 2023 relative to the average of their three highest years of consumption. The Agency is also clarifying that entities may confer or transfer allowances at any point after they are allocated until the allowance expires at the end of the calendar year for which it was allocated.

Consumption Baseline: EPA is amending the consumption baseline from 303,887,017 Metric Tons of Exchange Value Equivalent (MTEVe) to 302,538,316 MTEVe to account for verified revisions from entities for 2011 through 2013 and the Agency’s internal review of baseline calculation methodologies.

Imports and Allowance Expenditures: EPA is revising existing language to require that allowances be expended at the time of ship berthing for vessel arrivals, border crossing for land arrivals such as trucks, rail, and autos, and first point of terminus in U.S. jurisdiction for arrivals via air. The Agency is also adding requirements that only the importer of record can expend allowances and that the importer of record be in possession of allowances in the amount that will need to be expended at the time of filing their advance report. Associated with these requirements, EPA is amending existing provisions to make it clear that any person who meets the definition of an importer in the 40 CFR part 84 regulations could be held liable for imports of regulated substances without necessary expenditure of allowances unless they can demonstrate that the importer of record possessed and expended the appropriate allowances. Furthermore, the Agency is making a revision to reflect and further clarify the existing requirement that allowances must be expended to import bulk regulated substances regardless of whether the import is of an HFC that is imported as a single component or as part of a multicomponent substance.

Recordkeeping and Reporting: EPA is revising and adding requirements to a variety of recordkeeping and reporting provisions, including provisions to specify that the importer of record or their authorized agent must file the advance notification and quarterly reports; require the submission of both the net weight (or net product weight) and gross weight (net weight plus container weight), as well as unit of mass (*i.e.*, kilogram), for each container in the shipment in the advance notification report; shorten the advance notification reporting requirements to 5 days in advance for truck, rail, air, and other non-sea arrivals and 10 days in advance for sea arrivals; reiterate that the harmonized tariff schedule (HTS)

¹ In the context of this rule, “2024 through 2028” means “2024 through, and including, 2028.”

Code for the regulated substance must be used for the import of any regulated substance; require that certain information must be submitted by any entity anticipating being the importer of record for a shipment of regulated substances by November 15 of the prior calendar year; require reporting of the name, quantity, and recipient facility for regulated substances produced at one facility for transformation, destruction, or use as a process agent at another facility owned by the same entity; and to add the Internal Transaction Numbers (ITN) and Electronic Export Information (EEI) documents as required data elements for Request for Additional Consumption Allowance (RACA) submissions.

Sampling and Testing: EPA is amending requirements related to verifying composition and specifications of regulated substances offered for sale or distribution. These revisions establish additional verification requirements and codify procedures to be followed to meet the requirement to test a representative sample. The Agency is finalizing the

following provisions to add that already required sampling and testing of regulated substances must follow a combination of methodologies to verify the label composition for all applications; require sampling and testing by exporters; add a requirement to sample and test under specified methodology to ensure compliance with the existing requirements concerning specifications; define the records required associated with testing and add recordkeeping requirements for fire suppression recyclers, repackagers, and exporters; add definitions of “batch” and “representative sample” and clarify the relationship between these terms; add a definition for “laboratory testing” such that laboratories must be certified or accredited; and add a requirement that certificates of analysis accompany all imports of regulated substances.

Other Revisions: EPA is also finalizing additional regulatory changes based on lessons learned and current practices that have proved useful in implementing the HFC phasedown. Among these, the Agency is defining “expend” to mean to subtract the

number of allowances required for the production or import of regulated substances under 40 CFR part 84 from a person’s unexpended allowances. EPA is also adding more detail and specificity concerning features on all labels or markings and specifying that no one other than the importer of record may repackage or relabel regulated substances which were initially unlabeled or mislabeled. The Agency is clarifying that allowances can be expended by parents, subsidiaries, sister, or commonly owned companies without a transfer.

II. General Information

A. Does this action apply to me?

You may be potentially affected by this action if you produce, import, export, destroy, use as a feedstock or process agent, reclaim, or recycle HFCs. Potentially affected categories, North American Industry Classification System (NAICS) codes, and examples of potentially affected entities are included in Table 1.

TABLE 1—NAICS CLASSIFICATION OF POTENTIALLY AFFECTED ENTITIES

NAICS Code	NAICS industry description
325120	Industrial Gas Manufacturing.
325199	All Other Basic Organic Chemical Manufacturing.
325211	Plastics Material and Resin Manufacturing.
325412	Pharmaceutical Preparation Manufacturing.
325414	Biological Product (except Diagnostic) Manufacturing.
325998	All Other Miscellaneous Chemical Product and Preparation Manufacturing.
326220	Rubber and Plastics Hoses and Belting Manufacturing.
326150	Urethane and Other Foam Product
326299	All Other Rubber Product Manufacturing.
333415	Air-Conditioning and Warm Air Heating Equipment and Commercial and Industrial Refrigeration Equipment Manufacturing.
333511	Industrial Mold Manufacturing.
334413	Semiconductor and Related Device Manufacturing.
334419	Other Electronic Component Manufacturing.
334510	Electromedical and Electrotherapeutic Apparatus Manufacturing.
336212	Truck Trailer Manufacturing.
336214	Travel Trailer and Camper Manufacturing.
336411	Aircraft Manufacturing.
336611	Ship Building and Repairing.
336612	Boat Building.
339112	Surgical and Medical Instrument Manufacturing.
423720	Plumbing and Heating Equipment and Supplies (Hydronics) Merchant Wholesalers.
423730	Warm Air Heating and Air-Conditioning Equipment and Supplies Merchant Wholesalers.
423740	Refrigeration Equipment and Supplies Merchant Wholesalers.
423830	Industrial Machinery and Equipment Merchant Wholesalers.
423840	Industrial Supplies Merchant Wholesalers.
423860	Transportation Equipment and Supplies (except Motor Vehicle) Merchant Wholesalers.
424690	Other Chemical and Allied Products Merchant Wholesalers.
488510	Freight Transportation Arrangement.
541380	Testing Laboratories.
541714	Research and Technology in Biotechnology (except Nanobiotechnology).
562111	Solid Waste Collection.
562211	Hazardous Waste Treatment and Disposal.
562920	Materials Recovery Facilities.
922160	Fire Protection.

This table is not intended to be exhaustive, but rather provide a guide for readers regarding entities likely to be affected by this action. Other types of entities not listed in this section could also be affected. If you have any questions regarding the applicability of this action to a particular entity, consult the person listed under the **FOR FURTHER INFORMATION CONTACT** section.

B. What are HFCs?

HFCs are anthropogenic² fluorinated chemicals that have no known natural sources. HFCs are used in a variety of applications such as refrigeration and air conditioning, foam blowing agents, solvents, aerosols, and fire suppression. HFCs are potent GHGs with 100-year global warming potentials (GWPs) (a measure of the relative climatic impact of a GHG) that can be hundreds to thousands of times that of carbon dioxide (CO₂).

HFC use and emissions have been growing worldwide due to the global phaseout of ozone-depleting substances (ODS) under the *Montreal Protocol on Substances that Deplete the Ozone Layer* (Montreal Protocol), and the increasing use of refrigeration and air-conditioning equipment globally.³ HFC emissions had previously been projected to increase substantially over the next several decades. In 2016, in Kigali, Rwanda, countries agreed to adopt an amendment to the Montreal Protocol, known as the Kigali Amendment, which provides for a global phasedown of the production and consumption of HFCs. The United States ratified the Kigali Amendment on October 31, 2022. Global adherence to the Kigali Amendment would substantially reduce future emissions, leading to a peaking of HFC emissions before 2040.^{4,5}

² While the overwhelming majority of HFC production is intentional, EPA is aware that HFC-23 can be a byproduct associated with the production of other chemicals, including but not limited to hydrochlorofluorocarbon (HCFC)-22 and other fluorinated gases.

³ World Meteorological Organization (WMO), *Scientific Assessment of Ozone Depletion: 2018*, World Meteorological Organization, Global Ozone Research and Monitoring Project—Report No. 58, 67 pp., Geneva, Switzerland, 2018. <https://ozone.unep.org/sites/default/files/2019-05/SAP-2018-Assessment-report.pdf>.

⁴ *Ibid.*

⁵ A recent study estimated that global compliance with the Kigali Amendment is expected to lower 2050 annual emissions by 3.0–4.4 Million Metric Tons of Carbon Dioxide Equivalent (MMTCO₂e). Guus J.M. Velders et al. *Projections of hydrofluorocarbon (HFC) emissions and the resulting global warming based on recent trends in observed abundances and current policies*. Atmos. Chem. Phys., 22, 6087–6101, 2022. Available at <https://doi.org/10.5194/acp-22-6087-2022>.

There are hundreds of possible HFC compounds. The 18 HFCs listed as regulated substances by the AIM Act are some of the most commonly used HFCs (neat and in blends) and have high impacts as measured by the quantity of each substance emitted multiplied by their respective GWPs. These 18 HFCs are all saturated, meaning they have only single bonds between their atoms, and therefore have longer atmospheric lifetimes. More detailed information on HFCs, their uses, and their impacts is available in this rulemaking's proposal (87 FR 66375, November 3, 2022) and associated supporting documentation, available in the docket for this action (Docket ID No. EPA-HQ-OAR-2022-0430).

We also discuss costs and benefits associated with this action in section IX of this preamble, and consider potential environmental justice impacts in section X of this preamble.

C. What is the AIM Act, and what authority does it provide to EPA as it relates to this action?

On December 27, 2020, the AIM Act was enacted as section 103 in Division S, Innovation for the Environment, of the Consolidated Appropriations Act, 2021 (42 U.S.C. 7675). The AIM Act authorizes EPA to address HFCs in three main ways: phasing down HFC production and consumption through an allowance allocation program, facilitating sector-based transitions to next-generation technologies, and promulgating certain regulations for purposes of maximizing reclamation and minimizing releases of HFCs from equipment. This rulemaking focuses on the first area—the phasedown of the production and consumption of HFCs.

Subsection (e) of the AIM Act gives EPA authority to phase down the production and consumption of listed HFCs through an allowance allocation and trading program. Subsection (c)(1) of the AIM Act lists 18 saturated HFCs, and by reference any of their isomers not so listed, that are covered by the statute's provisions, referred to as “regulated substances” under the Act. Congress also assigned an “exchange value”^{6,7} to each regulated substance

⁶ EPA has determined that the exchange values included in subsection (c) of the AIM Act are identical to the GWPs included in the Intergovernmental Panel on Climate Change (IPCC) (2007). EPA uses the terms “global warming potential” and “exchange value” interchangeably in this proposal.

⁷ IPCC (2007): Solomon, S., D. Qin, M. Manning, R.B. Alley, T. Berntsen, N.L. Bindoff, Z. Chen, A. Chidthaisong, J.M. Gregory, G.C. Hegerl, M. Heimann, B. Hewitson, B.J. Hoskins, F. Joos, J. Jouzel, V. Kattsov, U. Lohmann, T. Matsuno, M. Molina, N. Nicholls, J. Overpeck, G. Raga, V.

(along with other chemicals that are used to calculate the baseline). EPA has codified the list of the 18 regulated substances and their exchange values in appendix A to 40 CFR part 84. Congress gave EPA authority to designate new regulated substances under subsection (c)(3), but the Agency is not here designating any new regulated substances, just as the Agency did not designate any new regulated substances in the previous October 5, 2021, rulemaking (86 FR 55116; hereinafter called the Allocation Framework Rule; see “Response to Comments” page 193 for Docket ID No. EPA-HQ-OAR-2021-0044).

The AIM Act requires EPA to phase down the consumption and production of the statutorily listed HFCs on an exchange value-weighted basis according to the schedule in subsection (e)(2)(C) of the AIM Act. The AIM Act requires that the EPA Administrator ensures the annual quantity of all regulated substances produced or consumed⁸ in the United States does not exceed the applicable percentage listed for the production or consumption baseline. EPA has codified the phasedown schedule at 40 CFR 84.7.

To implement the directive that the production and consumption of regulated substances in the United States does not exceed the statutory targets, the AIM Act in subsection (e)(3) requires EPA to issue regulations establishing an allowance allocation and trading program to phase down the production and consumption of the listed HFCs. These allowances are limited authorizations for the production or consumption of regulated substances. Subsection (e)(2) of the Act has a general prohibition that no person⁹ shall produce or consume a

Ramaswamy, J. Ren, M. Rusticucci, R. Somerville, T.F. Stocker, P. Whetton, R.A. Wood and D. Wratt, 2007: Technical Summary. In: *Climate Change 2007: The Physical Science Basis. Contribution of Working Group I to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change* [Solomon, S., D. Qin, M. Manning, Z. Chen, M. Marquis, K.B. Averyt, M. Tignor and H.L. Miller (eds.)]. Cambridge University Press, Cambridge, United Kingdom and New York, NY, USA <https://www.ipcc.ch/report/ar4/wg1>.

⁸ In the context of allocating and expending allowances, EPA interprets the word “consume” as the verb form of the defined term “consumption.” For example, subsection (e)(2)(A), states the phasedown consumption prohibition as “no person shall . . . consume a quantity of a regulated substance without a corresponding quantity of consumption allowances.” While a common usage of the word “consume” means “use,” EPA does not believe that Congress intended for everyone who charges an appliance or fills an aerosol can with an HFC to expend allowances.

⁹ Under the Act's term, this general prohibition applies to any “person.” Because EPA anticipates that the parties that produce or consume HFCs—

quantity of regulated substances in the United States without a corresponding quantity of allowances.

EPA published the Allocation Framework Rule, which, among other things: established the HFC production and consumption baselines; determined an initial approach to allocating production and consumption allowances for 2022 and 2023, identifying both the entities receiving allowances and how to determine what quantities of allowances they would receive; established a process for issuing “application-specific” allowances to entities in six specific applications listed in subsection (e)(4)(B)(iv) of the AIM Act; created a set-aside pool of allowances for new entrants and entities for which the Agency did not have verifiable data prior to the finalization of the rule; established provisions for the transfer of allowances; established recordkeeping and reporting requirements; and established a suite of compliance and enforcement-related provisions. Unless otherwise stated in the sections included in this action, EPA’s requirements and revisions are based on the same interpretations of the AIM Act, and the Clean Air Act (CAA) as applicable under subsection (k) of the AIM Act, as discussed in the Allocation Framework Rule. EPA also has authority to prevent and identify noncompliance and to create a level playing field for the regulated community.

III. How is EPA determining allowance allocations starting in 2024?

Subsection (e)(3) of the AIM Act requires EPA to implement the statutorily established phasedown of the production and consumption of regulated substances through “an allowance allocation and trading program.” Additional discussion of how allowances work, including the decision to allocate consumption and production allowances on an exchange-weighted basis, is available in the Allocation Framework Rule at 86 FR 55142–43. This approach was not reopened in this action.

This section provides an overview of EPA’s methodology for issuing calendar year production and consumption

and that would thus be subject to the Act’s production and consumption controls—are companies or other entities, we frequently use those terms to refer to regulated parties in this rule. Using this shorthand, however, does not alter the applicability of the Act’s or regulation’s requirements and prohibitions. Similarly, in certain instances EPA may use these terms interchangeably in this rule preamble, but such differences in terminology should not be viewed to carry a material distinction in how EPA interprets or is planning to apply the requirements discussed herein.

allowances starting in calendar year 2024. In the Allocation Framework Rule, EPA codified an initial approach to allocating production and consumption allowances for calendar years 2022 and 2023, but did not establish any allocation methodology for further years. EPA made clear that the Agency intended to revisit how to allocate production and consumption allowances for 2024 and beyond. EPA presented and took advance comment on ideas on potential criteria and a framework for issuing allowances for 2024 and later years. EPA stated that comments received on the elements noted for advance comment would be taken under advisement by the Agency and incorporated, as appropriate, in future and separate rulemakings with an opportunity for public comment prior to finalization of any provisions. Accordingly, EPA considered the advance comments provided on potential methodologies for allocating allowances starting with calendar year 2024 allowances in development of the proposed rulemaking. Those comments can be found at Docket ID No. EPA–HQ–OAR–2021–0044. EPA is not including those comments in the docket for this rule, does not consider those advance comments to be part of this rulemaking record, and does not anticipate providing any further response to them. Comments received during the public comment period for this rulemaking on how EPA may allocate production and consumption allowances for 2024 and beyond will be addressed either in the preamble of this rulemaking or the response to comments document, available in the docket.

EPA did not reopen the methodology for issuing application-specific allowances, and the existing application-specific allowance allocation methodology codified at 40 CFR 84.13 will continue to apply as finalized in the Allocation Framework Rule. The Agency has begun development of a rule to review and consider whether to renew eligibility for each of the six applications for application-specific allowances and to consider revisions to existing regulatory requirements. EPA is planning to issue a proposed rulemaking in the first half of 2024.

A. For which years is EPA establishing the allocation methodology?

EPA is finalizing as proposed that the methodology for allocating production and consumption allowances described in this section of the preamble will apply for allocation of allowances for calendar year 2024 through calendar year 2028. During these five years, the

annual production and consumption caps established in the AIM Act will be 60 percent of the baseline.¹⁰

While the Agency’s primary proposal was to establish an allowance methodology through 2028 and reassess the methodology for allocation of calendar year 2029 production and consumption allowances, EPA also considered whether it may be less disruptive to the market to reassess and potentially change methodologies in a year prior to or after a phasedown step (e.g., alter the methodology for allocation of calendar year 2028 or 2030 allowances, instead of aligning with the next phasedown step in 2029). Additionally, EPA sought input on whether it would be appropriate to establish the methodology through a different phasedown step, such as through the allocation of calendar year 2036 allowances when the production and consumption caps reach 15 percent of baseline.

Commenters had a variety of views. Approximately half of the commenters on this topic supported EPA’s approach of covering calendar year 2024 through calendar year 2028. The remaining commenters on the issue expressed a preference for or suggested that the Agency include years beyond calendar year 2028, e.g., either through calendar year 2030 or through calendar year 2036. Of these, approximately half did not object to the Agency’s proposal of covering calendar year 2024 through calendar year 2028 but preferred a longer period, namely through 2036. Commenters that supported extending EPA’s allocation methodology further into the future cited several factors. They asserted that extending the applicable years for the methodology past 2028 would provide consistency and clarity to industry while simultaneously preventing further disruption to the industry. Commenters cited time, investments, and resources as integral to implementing the phasedown, and extending the applicable years past 2028 would facilitate effective business planning, long-term contracting, and a seamless transition to HFC substitutes. Another benefit cited by commenters is that with a longer applicability period, entities have greater ability to make critical decisions regarding usage of allocations and supply planning. Several commenters also noted that even if EPA were to extend the years covered by this rule past 2028, the mandated phasedown could still occur, i.e., a longer time period would not change

¹⁰ In 2029, the production and consumption caps decline to 30 percent of baseline.

the statutory and regulatory schedule and national targets for HFC production and consumption.

In response, as explained in the proposed rulemaking, EPA used a similar approach of periodically revisiting its allocation methodology when phasing down HCFCs under Title VI of the CAA. Periodically revisiting the allowance allocation methodology allowed the Agency to respond to changing market conditions and/or challenges in program implementation. Examples of changes in market conditions that the Agency could potentially consider in revisiting its methodology in the HFC phasedown include, among other things, companies entering or exiting the market, significant quantities of allowances unexpended at the end of the year, and/or supply shortages, or oversupplies, for specific HFCs.

Implementing the allocation methodology through calendar year 2028 will allow EPA to review and revisit it in advance of the next phasedown step, which occurs in 2029. EPA will be able to consider lessons learned from implementation, prior year use of allowances, and any concerns surrounding distribution of allowances prior to the next reduction in the production and consumption caps. Even if the Agency were to determine as part of the future rulemaking establishing an allocation methodology for calendar year 2029 allowances that it should not make any change in the allocation methodology, being able to make that assessment is important for a smooth and successful phasedown for the reasons described in this section. This approach also allows EPA to consider whether regulatory changes are warranted as a result of market shifts that may occur as a result of other regulations under the AIM Act (*e.g.*, final technology transition and HFC management rules). Establishing a methodology for five years, as opposed to a shorter period of time, is also intended to provide allowance holders a level of predictability for allocation levels through the phasedown step.

As transition to substitutes continues, the market dynamics may shift towards increased or decreased need for certain HFCs. Specifically, on commenters' points in favor of extending the methodology past calendar year 2028, EPA's proposed rulemaking also explained that establishing a methodology from 2024 through 2028 (and not shorter) is intended to provide allowance holders a predictable understanding of a likely range of allocation levels for these five years so they can make longer term decisions

and plans about how to deploy their allowances (*e.g.*, whether to transfer or produce or import directly). Any subsequent methodology rulemaking will also require notice and comment, thereby providing EPA a predictable timeline for evaluating potential challenges, sharing that information with the regulated community, along with any proposed changes to remedy those challenges, and stakeholders the opportunity to provide feedback.

Furthermore, with respect to business planning, long-term contracting, HFC substitute transitions, and other issues related to allocations and supply planning, EPA observes that independent of this rulemaking or any other methodology rulemaking, entities can run scenarios and anticipate various business, technology, or supply chain models on their own. In other words, the timeline for the phasedown of HFCs has been directed by the AIM Act and therefore entities know the phasedown schedule. Even in the absence of knowing their individual allocations for every year, companies are still able to plan for a future where the amount of HFCs produced and imported will decrease, recognizing those decreases are most acute in 2024 and 2029. Other AIM Act regulations are expected to establish requirements that may affect the HFC market, such as by restricting the use of regulated substances in certain sectors and subsectors or by encouraging maximizing reclamation and minimizing the release of a regulated substance from equipment. Entities need not rely solely on EPA's phasedown regulations—they can use all of these factors, including ongoing technology and market transitions, to drive their planning (*e.g.*, whether and when to transition their production or import to lower GWP HFCs or substitutes). Lastly, the Agency notes that other Federal regulations both with respect to HFCs and other media may inform and provide insight on industry trends and forecasting that may facilitate with entities' planning needs.

One commenter asserted that the AIM Act requires EPA to establish an allowance methodology for 2024 through 2036. The commenter stated that the AIM Act directed EPA to issue a singular "final rule" by "270 days after December 27, 2020", that provides for the phasedown of the production and consumption of regulated substances "through an allowance allocation and trading program." The commenter seems to argue that in referring to a singular final rule to establish an allowance allocation program, Congress required EPA to promulgate a singular final rule

establishing an allowance allocation methodology for the entire length of the HFC phasedown. The commenter points to EPA's prior phasedown rule as a "partial rule" to implement the HFC phasedown for 2022 and 2023 and alleges that EPA is now late in finalizing a rule to address the Congressional mandate to establish the allowance allocation program. The commenter noted that EPA was on a short timeframe (270 days) to finalize the Allocation Framework Rule, which was cited by EPA in putting out the partial rule addressing allocation methodology for just two years, but EPA cannot rely on such a rationale in this rulemaking, so the Agency now must fulfill its statutory duty to promulgate a singular rule establishing the allocation methodology through 2036. The commenter also contended that EPA's rationale for establishing the allocation methodology only through 2028, and examples of considerations for establishing future methodology such as companies entering or exiting the market, corporate mergers and acquisitions, significant quantities of allowances unexpended at the end of the year, and/or supply shortages for specific HFCs, are not a sufficient basis to ignore what the commenter contends is a statutory directive to establish the allowance allocation methodology through calendar year 2036. The commenter stated that while it is possible, perhaps even inevitable, that the HFC market will change over the next 12 to 13 years, this does not justify limiting the allowance allocation methodology to calendar year 2024 through calendar year 2028. Instead, the commenter contended that if EPA believes it has the authority to adjust the allowance methodology to address the changes in the HFC market described in the proposed rulemaking, the Agency could seek to exert authority to do so when such conditions become evident. Lastly, the commenter claimed that EPA's past practice for the phaseout of HCFCs under Title VI of the CAA, *i.e.*, a chemical by chemical and prioritized system, does not provide the Agency with either authority, direction, or relevance for the phasedown of HFCs.

EPA disagrees with the commenter's contention that AIM Act subsection (e)(3) requires EPA to establish a permanent allowance allocation methodology. EPA notes that the AIM Act required EPA to establish regulations within 270 days of enactment, and EPA met the directive of subsection (e)(3) in finalizing the Allocation Framework Rule no later than 270 days after the passage of the

AIM Act. In the Allocation Framework Rule, EPA established the baselines, codified the numeric phasedown schedule, established requirements and prohibitions around production and consumption of regulated substances without allowances, and created the regulatory framework for allowance trading. This rulemaking fulfilled the requirements of AIM Act subsection (e)(3) to “issue a final rule” phasing down production and consumption of regulated substances “through an allowance allocation and trading program.” In this section of this final rule, EPA has outlined the reasons why it is appropriate at this juncture to establish the allowance allocation methodology through 2028 at which point the Agency will revisit the allocation methodology.

Even if EPA were to agree with the commenter’s contention regarding the language in (e)(3), which the Agency does not, it is not clear why the commenter’s interpretation of it—that EPA must establish an allowance allocation methodology through 2036—is correct either. In the AIM Act, Congress mandated a phase down, not a phase out, of HFCs. The final phasedown step is 15 percent of baseline levels of production and consumption in 2036. Unless Congress acts to amend the AIM Act or EPA acts to alter the phasedown schedule according to subsection (f) of the AIM Act in response to a petition, production and consumption of HFCs will continue after 2036 indefinitely.

EPA also does not agree with the commenter’s characterization of the Agency’s ability to revisit the allocation methodology in future years. EPA has authority to reconsider and/or revise past decisions to the extent permitted by law so long as the Agency provides a reasoned explanation. Courts have recognized that “[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). The commenter seems to acknowledge that such authority exists in noting that if EPA believes it has the authority to adjust the allowance methodology to address the changes in the HFC market described in the proposed rulemaking, the Agency could seek to exert authority to do so when such conditions become evident. EPA’s authority to revisit the allocation methodology is a compelling reason why it is permissible for EPA to establish the allocation methodology in a stepwise fashion in the first instance. It is less disruptive to the regulated community for EPA to be transparent about the points in time that the Agency

will revisit the allocation methodology in the first instance, rather than establishing an allocation methodology now without a defined timeframe while retaining the ability to revisit that methodology at an undefined future point in time.

B. What is EPA’s framework for determining how many allowances each entity receives?

This section discusses how EPA will determine the quantity of production and consumption allowances each entity will receive. As noted in the Allocation Framework Rule and reiterated in the proposal for the current rulemaking, EPA seeks to provide as smooth a transition as possible from HFCs as the phasedown proceeds and ensure that allowance allocations can be made no later than October 1, 2023.¹¹ As EPA has chosen to allocate allowances based on historic production and consumption activity levels, EPA has also prioritized in such a scenario selection of a methodology that utilizes robust, verified, and well-understood data. EPA proposed to use a similar methodology to calculate allocation quantities as the initial framework used for allocating calendar year 2022 and 2023 production and consumption allowances, with adjustments to accommodate entities whose applications were granted as new market entrants¹² pursuant to 40 CFR 84.15(e)(3).

1. Which methodology is EPA using as the basis for allocations?

EPA proposed to base production allowance allocations on an entity’s market share derived from the average of the three highest years (not necessarily consecutive) of production of regulated substances between 2011 and 2019. EPA proposed to base consumption allowance allocations on an entity’s market share derived from the average of the three highest years (not necessarily consecutive) of

consumption of regulated substances between 2011 and 2019. The proposed rulemaking described the Agency’s approach for companies who do not have three years of data; EPA proposed to take the average of the years between 2011 and 2019 for which each company produced and/or imported HFCs. Production allowances would be determined for each company based on the exchange value equivalent (EVE) quantity of HFCs they produced (subtracting out the amounts of HFCs produced that are used and entirely consumed except for trace quantities in the manufacture of another chemical, *i.e.*, transformation, and the amounts of HFCs that are destroyed). Consumption allowances would be determined for each company based on the EVE quantity of HFCs they produced (see preceding sentence for description) plus the amount they imported (excluding the amount imported for transformation or destruction) minus the amount exported. EPA proposed to use historic production and consumption data from 2011 to 2019, matching the approach taken for allocating calendar year 2022 and 2023 allowances, for many of the reasons described in the Allocation Framework Rule (86 FR 55145–55147).

Most allowance holders, associations representing different parts of the industry, and environmental non-governmental organizations supported EPA’s proposal to use 2011 to 2019 production and consumption activity as the years to evaluate for allocations. Several allowance holders and a number of importers and their customers (*e.g.*, distributors and heating, ventilation, and air conditioning (HVAC)), on the other hand, asserted that EPA should include more recent years, namely 2020 and 2021, as part of the years to be considered in the allocation methodology. Commenters asserted that by not using import data after 2019, the allowance program would reflect a market that no longer exists, and already would not have existed for several years. They contended that by excluding 2020 and 2021 in the Allocation Framework Rule (thereby affecting the allocations for 2022 and 2023) the most relevant years of activity for some groups of customers and their suppliers, were unaccounted for. One of the commenters also hypothesized that market dynamics and trends in 2020 and 2021 were not only more representative of real-world conditions but also more aligned with current Department of Commerce (DoC) findings, specifically with respect to decreased import activity in 2020 and 2021 as a result of the DoC’s additional

¹¹ Under the AIM Act, by October 1 of each calendar year EPA must calculate and determine the quantity of production and consumption allowances for the following year. EPA intends to issue allowances for the 2024 calendar year no later than October 1, 2023, using the procedure established through this rulemaking.

¹² EPA allocated calendar year 2022 and 2023 consumption allowances to entities that met the criteria of 40 CFR 84.15(c)(2) from the pool of set-aside allowances established in the Allocation Framework Rule; EPA issued a final agency action determining which entities were eligible for these allowances on March 31, 2022. In the context of this action, EPA generally refers to these entities as new market entrants. As discussed in this section, EPA is not establishing another pool of set-aside allowances or extending 40 CFR 84.15(c)(2) to future new market entrants.

Antidumping and Countervailing Duty (AD/CVD) findings and actions on certain HFCs that had been imported between 2015 and 2019.

After consideration of these comments, EPA has determined that there are many advantages to using data from the 2011 to 2019 timeframe and reasons for excluding data from 2020 and 2021. EPA has considered whether to include more recent data in determining allocation levels given the comments that more recent data may be a more accurate reflection of the current state of the HFC production and import market. The commenters allege that by looking at data from 2011 through 2019, EPA would be looking to data of a market that no longer exists. EPA recognizes that 2020 and 2021 are more recent years, however EPA has determined that the data from 2020 and 2021 are less representative due to several important global and market factors, and therefore do not accurately represent companies' market share. EPA acknowledges that in making this choice, the Agency is fundamentally excluding the most recent years to date, but the Agency has determined that the market could have been so significantly skewed in those years that depending on them would lead to an unrepresentative and ill-suited data set. In subsequent paragraphs, EPA discusses recent import activity of regulated HFCs, specifically with respect to the stark, unprecedented, and otherwise inexplicable (aside from stockpiling) increase in import activity in 2021 from a limited number of entities. HFCs are not perishable goods, so stockpiling for later sale allows entities who had the resources to acquire and store HFCs in one year in anticipation of future years' demand as HFC production and consumption is phased down. Issuing allowances based on stockpiling is counter to one of the Agency's goals that allowances should be distributed and available to entities based on their historic HFC production and/or import for near-term need of those HFCs. Ensuring the HFCs are going to entities that are using them to meet near-term needs is an important way to reduce disruption to the market, especially considering the imminent production and consumption stepdown beginning in 2024, and allocating based on stockpiling would directly reduce allowance allocations for those entities who are meeting near-term need. Continuing to use the same basis years as the Agency used to allocate calendar year 2022 and 2023 allowances, combined with a using production and import activity in 2021 and 2022 to

determine eligibility, ensures the entities receiving allowances are prepared to use them to satisfy current customer demands, decreasing the likelihood of further disruption to the market.

The Agency recognizes that production and importation of HFCs in 2020 and 2021 were influenced by external factors such as the COVID-19 pandemic and supply chain disruptions, potentially including shortages of key materials necessary for the production of HFCs, which created well-documented market distortions on a global scale. In addition, data from 2020 and 2021 are distorted due to entities' awareness in 2020 of Congress's efforts to pass legislation to regulate HFCs and in 2021 awareness of the AIM Act itself. The Agency also notes that the AIM Act was first introduced in 2018, and Congressional activity picked up significantly in 2020 with a Congressional hearing in the House in January 2020 and an information gathering process in the Senate between March and April. Additionally, Senators Carper and Kennedy offered the AIM Act as an amendment to the American Energy Innovation Act in March 2020, and announced an agreement with Senator Barasso to update the AIM Act amendment to the American Energy Innovation Act in September 2020. While producers and importers may not have known the AIM Act would pass specifically in December 2020, this level of Congressional interest and activity as well as the significant industry and environmental organization support for the legislation could reasonably have affected business decisions including decisions to stockpile HFCs in advance of a phasedown. It is likely that some entities increased their production and imports to stockpile HFCs in advance of the restrictions on production and import of regulated substances. Some companies also likely increased their import and production in patterns that did not align with their actual needs or business model, gambling that EPA would set up an allocation system similar to the ODS phaseout and look at company-specific historic data. Recent feedback, including some comments on the proposed rulemaking, appear to support this assessment including a statement from one importer indicating they are still drawing down significant inventories built prior to initiation of the HFC phasedown. Moreover, updated 2021 data from EPA's Greenhouse Gas Reporting Program (GHGRP) show that the net supply of HFCs in MMTCO_{2e} in 2021 was approximately 150 percent that of the 2020 level, and additionally,

that imports of HFCs were approximately 215 percent that of the 2020 level, providing further evidence that there was significant stockpiling. For context, when evaluating year over year fluctuations in HFC import activity from GHGRP between 2011 and 2021, the next highest year over year increase was between 2014 and 2015 (approximately 167 percent), with more recent pre-pandemic years, *i.e.*, between 2015 and 2019, showing a maximum year over year increase between 2016 and 2017 of approximately 120 percent. This strongly suggests that the increased imports in 2021 may well have been due to stockpiling ahead of the commencement of the AIM Act's phasedown, rather than due to use or demand. All of these factors lead EPA to conclude that the 2020 and 2021 data is an unrepresentative data set in terms of reflecting existing market conditions. By using those years of data, EPA could unfairly give additional weight to some entities that imported amounts that were not reflective of demand from entities that are putting regulated substances to near-term productive use rather than stockpiling regulated substances in advance of the phasedown. Looking at individual company import activity in 2021 as reported to the GHGRP, provides further evidence of stockpiling. Five companies are responsible for approximately 97 percent of the net increase in import activity (expressed in MTCO_{2e}) between 2020 and 2021, and 14 companies had 2021 import activity of at least double their 2020 import activity expressed in MTCO_{2e}.

As explained in the proposed rulemaking, using an average of the three highest years during the 2011 to 2019 period incorporates consideration of both industry history and ongoing growth and market change. EPA recognizes that there is no single year that is "better" for all market participants, but for added and relevant context, the commenters above were comprised of approximately 40 entities sending several groups of similar form letters, and survey responses from approximately 290 respondents, all of which are either suppliers or customers in the HVAC aftermarket, wholesale, and service industry. On the other hand, the Agency received comments from a trade organization whose members represent 70 percent of the dollar value of the HVAC-Refrigeration market, 400 whole companies, nearly 300 manufacturing associates and nearly 100 manufacturer representatives, who supported the Agency's proposal to exclude 2020 and 2021 from evaluation

for the various reasons described in the proposed rulemaking, including the Agency's position on both industry history and ongoing growth and market change. When evaluating the comments and breadth of stakeholders that are covered, EPA does not find compelling the limited set of assertions that may only be applicable to a partial subset of entities.

EPA disagrees with one of the commenter's assertions that data from 2020 and 2021 would be more reliable because it would reflect decreased import activity as a result of the DoC's additional AD/CVDs findings and actions on certain HFCs imported between 2015 and 2019. DoC findings or actions with respect to AD/CVDs for affected regulated HFCs, *e.g.*, the February 28, 2022, "Hydrofluorocarbon Blends from the People's Republic of China: Continuation of Antidumping Duty Order" (87 FR 11044), are not intended to be a deterrent for importing HFCs; instead, they are intended to offset the value of dumping and/or subsidization, thereby leveling the playing field for domestic industries injured by such unfairly traded imports. The commenter has provided no evidence to suggest that import volumes changed in imported regulated substances in 2020 and 2021 directly as a result of DoC findings or actions. However, even if that were the case, the commenter has not provided sufficient rationale for why this would trump all of the other concerns the Agency has outlined with respect to data from 2020 and 2021. Commenters also argued the inclusion of 2020 and 2021 consumption activity would help minimize the disruption to the market. They disagreed that using the same timeframe as finalized in the Allocation Framework Rule would minimize disruption (and provide a smooth transition from HFCs through the next phasedown step) to the market in 2024. Commenters alleged the market has not adjusted to entity-specific allocations and is instead in turmoil, *e.g.*, scarcity of needed products, increased pricing, and supply chain issues to the aftermarket, partially because the Agency's initial allocations for 2022 and 2023 were premised upon data excluding 2020 and 2021. These commenters insisted that if EPA were to use the proposed set of years to evaluate allocations beginning in 2024, the same disruptions would only be compounded as the historic activity under review would be even further outdated.

EPA disagrees with these comments. Expanding the range of years considered in determining entities' market share for purposes of calculating allowance

allocations could significantly change each entity's market share. This inherently would mean a significant change in allocation levels from what was determined for calendar year 2022 and 2023 allowances. As noted at the proposal stage, this significant change in allocation levels would likely disrupt the market and negatively affect ongoing adjustments to the HFC Allocation Program that have taken place in 2022 and 2023. Allowance holders and their supply chains have been adjusting to the HFC Allocation Program, and more specifically, entity-specific allocation levels, including by reconfiguring production lines, undertaking corporate mergers and acquisitions, making importer/exporter arrangements, and transitioning business models including with the introduction of new chemicals. A key goal of EPA's administration of the HFC allocation system is to provide a smooth transition from HFCs through the next phasedown step. EPA acknowledges the assertion that there may be some instances of scarcity of needed products, increased pricing, and supply chain issues to the aftermarket, but these comments do not explain how or why this is attributable to EPA's choice of allocation methodology as opposed to market pressures inherent in the AIM Act, which phases down a group of chemicals currently in use. EPA fully expects that during the phasedown, prices will increase for all or at least for many regulated substances. The Agency recognizes there could be scarcity of certain virgin HFCs at times, though virgin HFCs can be replaced with reclaimed HFCs, which should ensure that consumer needs are met and equipment can be serviced throughout its useful lifetime. Changes in the market are inherent during a phasedown. Based on EPA's technical expertise and knowledge of the production and imports market for fluorinated gases, EPA is concerned that alterations to the years of data used for determining allocations directly ahead of this significant phasedown step would contribute to further market pressures leading to price spikes and lack of availability of HFCs in sectors that are not yet prepared to transition into different chemicals.

EPA is finalizing a continued use of the same set of years because the Agency has determined that this has the best means for reducing (though not eliminating) disruption to the market, which is valuable because reducing U.S. production and import from 90 percent of baseline to 60 percent of baseline will result in other changes to business practices, such as the increased use and

changes in production or import of substitutes and reclaimed HFCs. Using the same methodology will provide continuity between two stepdown periods and will allow producers and importers to estimate their anticipated allocation and plan accordingly. Although there will be some entity-specific revisions due to corrected historic data, entities have more specific insights on what proportion of available production and consumption allowances they would be allocated as a result of the Agency's previously established methodology and calculations.¹³ Regulated entities have also previously expressed a preference for allowances to be allocated using a consistent approach for as long as possible. Applying a similar approach as the one taken for calendar year 2022 and 2023 for calendar year 2024 through calendar year 2028 will provide a longer-term planning horizon for HFC producers and entities importing, which will enable entities to make decisions about which HFCs, and HFC substitutes, to produce and import as the market transitions away from high GWP regulated substances.

Commenters also identified several mechanisms for which EPA should already have complete sets of data (specifically consumption) for 2020 and 2021, as well as the ability to properly evaluate these datasets for the purposes of allocations beginning in 2024. They cited that EPA's position—that quality assurance procedures could not have been completed early enough in the process for the Allocation Framework Rule—would not be an issue for allocations beginning in 2024. Specifically, because GHGRP data is typically released in October for the prior year, these commenters noted that EPA should already have access to the full data sets for 2020 and 2021. These commenters also cited steps that EPA has taken to validate data for 2020 and 2021, including the electronic communications that the Agency sent to all entities who were known or likely to have had consumption activity of regulated substances from 2011 through

¹³ In addition to entity-specific revisions affecting their own allowances, entities should also be aware of other factors that may inform their insights, including the number of application-specific allowances allocated, EPA's final approach to the treatment of entities who were previous new market entrants, finalized changes to the baseline based on corrected historic reporting, changes in the number of entities who receive allowances, and the Agency's final approach to acquisitions. All of these factors are discussed in detail in the preamble to this rule, and any reference to expectations from EPA on entities for this rulemaking when compared to allowance allocations under the Allocation Framework Rule should be evaluated with these additional factors in mind.

2021, asking them to verify and, as necessary, correct, the historic consumption data that each supplier has previously certified as true, accurate, and complete in accordance with 40 CFR 98.4(e)(1). One of these commenters also noted that in the proposed rulemaking, the Agency provided until December 19, 2022, for entities to recheck their data, and therefore, multiple rounds of review will occur in time for the issuance of 2024 allocations. This commenter also maintained that entities' familiarity with the processes for the generation and submission of accurate reports has increased in more recent years.

EPA maintains that when holistically compared, the dataset for HFC consumption for 2011 through 2019 is better understood and more thoroughly vetted than the dataset from 2020 and 2021, largely due to the sheer number of iterations of review, updates, and follow-up as necessary. However, this is not a primary reason underlying EPA's decision in this rule to rely on data from 2011 through 2019 to determine allowance allocations and not include data from 2020 through 2021. The commenters' arguments with respect to EPA's ability to validate and verify data from 2020 and 2021 do not outweigh the concerns about the non-representative nature of that data noted elsewhere in this section (*e.g.*, due to awareness of the mandated HFC phasedown and due to unprecedented supply chain disruptions associated with the global COVID-19 pandemic).

Commenters also argued that EPA's proposal to exclude 2020 and 2021 from evaluation of allocations starting in calendar year 2024 as a result of the COVID-19 pandemic and any associated supply chain issues unfairly penalizes companies who were able to grow and succeed in those years. These commenters contended that the pandemic and any associated supply chain issues would have affected all entities equally, and therefore their growth while others might have experienced difficulties demonstrates that supply chain issues were not insurmountable. They continued by citing EPA's statements in the proposed rulemaking that taking an average of a wider range of years is more equitable to all entities in the market, and that each entity receives its best years regardless of actions taken by other entities. Accordingly, entities who might have experienced difficulties in 2020 and 2021 would not have those years evaluated in determining allocations, but entities that were successful in those two years should

have those two years evaluated for allocations as applicable.

EPA disagrees with the commenter's characterization. The COVID-19 pandemic had substantial and unprecedented impacts on the national economy and domestic and global supply chains. The impacts of the pandemic were largely unforeseen and differed geographically and across sectors in uncontrollable ways. The Agency acknowledges that some businesses fared better than others, and some even thrived, during the pandemic. However, EPA disagrees with the commenter's assertions that it would be appropriate to incorporate data influenced by the pandemic because some entities did well during those years. The Agency believes that an entity's growth or contraction during 2020 and 2021 was likely due to factors that are atypical of the pre-2020 market including the pandemic as well as knowledge of the AIM Act, and therefore it would be inappropriate to ignore the reality of the impacts. EPA does not find it to be reasonable to choose an approach with benefits that might accrue to an individual entity at the risk of distorting allowance share for the whole of allowance holders by providing a company with additional future allowances based on activity in years that are so unusual. Additionally, the Agency notes that the pandemic and related supply chain issues are only one set of reasons for why our final decision excludes 2020 and 2021 (*e.g.*, this would add significant additional disruption to the market at a time when allowances are decreasing significantly). Additionally, EPA noted in the proposal that we did not see any environmental benefit associated with changing the years used to determine allowance allocations. Comments did not change EPA's assessment.

Some commenters disagreed with EPA's view that stockpiling was occurring prior to the Allocation Framework Rule becoming effective, and that accordingly, such years should not be used in determining 2024 and later year allowance allocations. First, these commenters pointed to EPA's statement in the final rule that there is no year in which a forward-looking entity may not have been stockpiling in preparation for a restriction on HFCs or new duties that were imposed by DoC. They continued by citing that the Agency's proposed methodology of averaging mitigates the possibility of an entity receiving a large share of allocations based on a single very high year. These commenters also disputed EPA's claims that entities may have begun stockpiling in advance of the

passage of the AIM Act. While the commenters did acknowledge that the AIM Act was expected to be addressed at some point in time, they contended that the passage was rapid and unexpected after very little action in most of 2020 with no advance warning that the passing of the AIM Act would be so sudden in late 2020; therefore, entities would not have had time to stockpile. Additionally, these commenters cited data released by EPA's GHGRP showing that the net supply of HFCs increased between 2011 and 2020, but that the net supply of HFCs in 2020 was actually less than the supply in 2019. They posited that any fluctuations in 2020 and 2021 activity are attributable to their changing business models to meet increased aftermarket consumer demand, rather than stockpiling. Lastly, these commenters noted that any concerns the Agency may have about stockpiling can be innately mitigated by the proposed averaging approach, where one single high year's production or import activity would not result in an entity receiving a large share of allocations.

EPA disagrees with the commenters that entities would not have had time to stockpile. As described earlier in this section of the preamble, producers and importers of regulated HFCs were well aware of the phasedown of HFCs prior to the AIM Act's enactment. The Agency has reviewed updated GHGRP data through 2021,¹⁴ and notes that both the net supply of AIM-listed HFCs and the imports of AIM-listed HFCs, increased at rates that are unlikely to be explained as changing business models to meet increased aftermarket consumer demand. By commenters' own views, if import activity in 2020 when compared to 2019 were representative of changing business models where the net supply including imports of HFCs decreased slightly, one could expect within reason, a subsequent increase in imports between 2020 and 2021. This would reflect an increase to account for the decrease in 2020 along with a reasonably small increase to account for the needs of the industry due to supply chain issues in 2020. However, given the increase specifically with respect to imports in 2021, which amounted to approximately 215 percent of the 2020 value (represented in MMTCO_{2e}, which is the same as Million Metric Tons of Exchange Value Equivalent (MMTEVE)), the Agency maintains that this year was not representative of any normal or changing business model, nor would it account for any unmet lingering needs

¹⁴ <https://www.epa.gov/ghgreporting/ghgrp-data-relevant-aim-act>.

from 2020. This percentage increase is about the same when comparing 2021 to the annual reported values in 2018 and 2019 (aggregated in MMTEVe). As noted elsewhere in the preamble, when evaluating year over year fluctuations in HFC import activity from GHGRP between 2011 and 2021, the next highest year over year increase was between 2014 and 2015 (approximately 167 percent), with more recent pre-pandemic years, *i.e.*, between 2015 and 2019, showing a maximum year over year increase between 2016 and 2017 of approximately 120 percent. The Agency also maintains that 2020 import activity was also atypical, *i.e.*, import levels were almost equal to 2019 import activity, even with the various effects of COVID-19. Second, the Agency is aware of several entities with extremely limited or no bulk HFC import history who imported (or attempted to import) regulated HFCs into the United States for the first time in calendar year 2021, or who appeared to have exited the HFC import market in and around 2020 that began importing HFCs again in 2021, further supporting concerns that import activity in 2021 was atypical based on the then-imminent restrictions on production and consumption. The commenters have provided no evidence, including explanations of their own business plans, that could attribute this type of growth due to demand, and it is the Agency's view that changes to business models were a response to the AIM Act's pending restrictions on production and imports of regulated substances. EPA cannot change its technical analysis of data based solely on unsupported assertions from commenters stating that stockpiling is not a legitimate concern.

As noted earlier in this section, given the level of Congressional interest and activity, it is likely that some entities increased their production and imports to stockpile HFCs in advance of anticipated restrictions on production and import of regulated substances. Lastly, the Agency disagrees that stockpiling concerns can be simply resolved by averaging. In the case that both 2020 and 2021 would have been two of the three high years used in considering allocations, averaging exacerbates, rather than mitigates, the Agency's concerns that an entity may receive a disproportionately large amount of allowances. It would also fail to mitigate concerns about entities that began importing in 2021, or reimporting after apparent exit from the market, ahead of the HFC phasedown.

One commenter claimed that EPA's statements have been inconsistent. The commenter alleged that in the

Allocation Framework Rule, EPA stated that the methodology starting in 2024 could change; however, the commenter contended that the proposal for this rulemaking states that using 2011 through 2019 data aligns with stakeholder expectations. The commenter asserted that EPA should not disfavor companies who expected that the Agency might update the date range to reflect more recent data. This commenter also alleged that one of the Agency's proposed approaches for entities who had received allowances previously as new market entrants, *i.e.*, evaluating import data in 2022 or 2023, also innately excludes 2020 and 2021, thereby creating an equity and fairness issue.

EPA disagrees that our statement in the Allocation Framework Rule stating that the allocation methodology could change is in conflict with EPA deciding to use a substantially similar methodology. The Allocation Framework Rule stated that EPA "intends to develop another rule before allowances are allocated for 2024 that may alter the framework and procedure for issuing allowance allocations established in this rule," (86 FR 55129). It did not state that EPA would definitively change the framework or methodology in the future, and it did not indicate that any particular change would be forthcoming, so any "expectation" would necessarily have had to be speculative. The proposed rulemaking for this rule was developed based on our consideration of whether to continue the same methodology or adopt a variety of alternative methodologies, including some that were different from the approach taken in the Allocation Framework Rule. EPA's proposed rulemaking provides a detailed discussion of varying alternative methods the agency considered (87 FR 66376-66381). The Agency has concluded, after careful consideration, that maintaining a methodology substantially similar to that used for 2022 and 2023 is the best approach. As noted elsewhere, the Agency's conclusions are in part based on the Agency's intent of providing a smooth transition from HFCs through the next phasedown step, and in part on the conclusion that using the same methodology from the Allocation Framework Rule will provide continuity between two stepdown periods. Using the same time period will also enable prospective allowance recipients to estimate on an earlier timeframe their anticipated allocation and plan accordingly. Entities would generally have more specific insights on what

proportion of available production and consumption allowances they would be allocated as a result of the Agency's previously established methodology and calculations.

The Agency also disagrees with the commenter's notion that there is a fairness and equity issue created by our proposed treatment of entities who received allowances as new market entrants. As stated elsewhere in the preamble, most new market entrants are, as their name suggests, new to the HFC import market and would not reasonably be expected to have any import activity in 2020 or 2021. To be eligible as a new market entrant, an entity had to not have previously been allocated allowances by EPA. For almost all entities, this meant that the entity had no previous HFC import history. New market entrants were allocated allowances to import HFCs starting in calendar year 2022. The Agency's rationale for its approach with respect to new market entrants is fundamentally different than the question of what years of historic data the Agency will consider in allowance allocations. The allocation approach, and Agency's rationale, for new market entrants is addressed elsewhere in this preamble.

With respect to using historic production and consumption data, one commenter asserted that the Agency should not deduct exports in its determination of each company's consumption. The commenter contended that this approach is not compelled by the AIM Act, and furthermore, this approach does not align with EPA's intent to reflect the prior business activity of entities while minimizing disruption as a result of a new regulatory program. The commenter views deduction of exports as punitive towards companies, that in the past, served to expand U.S. export markets. The commenter suggested that for the calendar year 2024 through calendar year 2028 time period, EPA should determine each company's proportional market share based on gross imports and gross exports during the applicable historic time period. Alternatively, the commenter suggested that the Agency increase the allocations for affected companies for calendar year 2024 through calendar year 2028 to adjust for the exports that were excluded from allocations made in accordance with regulations finalized through the Allocation Framework Rule.

EPA disagrees with the commenter's arguments. To the extent that the commenter is raising concerns about the allocation methodology finalized in the Allocation Framework Rule for allocation of calendar year 2022 and

2023 allowances, that cannot be properly raised in the context of this rulemaking. EPA codified regulations outlining how the Agency would calculate allocation levels as a result of notice and comment rulemaking (86 FR 55116). EPA's regulations in 40 CFR 84.11(a) make clear that EPA will look to a company's consumption amounts in determining market share. The definition of "consumption" in the AIM Act mentions both imports and exports and provides that the quantity of regulated substances exported from the United States is to be subtracted from the quantity produced and imported in the United States. The time to comment and challenge the allocation methodology of the Allocation Framework Rule has passed, and the Agency is not herein revisiting allocation of calendar year 2022 or 2023 allowances.

To the extent the commenter is arguing that EPA should not wholly subtract exports when considering a company's historic consumption activity under the new methodology being finalized herein for allocation of calendar year 2024 through 2028 allowances, EPA has decided it is appropriate to look holistically at a company's consumption activity, and not import and export activity in isolation. The statutory scheme phasing down HFCs in the AIM Act measures percent reductions from a consumption baseline and places restrictions on the amount of consumption that can occur within a given year within the United States. The AIM Act and the resultant definitions in 40 CFR 84.3 are clear that exports must be excluded in evaluating consumption activity. As explained elsewhere in this preamble, EPA has determined to base allocation of consumption allowances on historic consumption activity. However, the Agency has also created mechanisms that account for and acknowledge the subtraction of export from consumption. Because calculation of consumption subtracts out exports, EPA established in 40 CFR 84.17 the RACA process under which entities exporting HFCs can be refunded consumption allowances subject to certain regulatory requirements. Consistent with the statutory and regulatory definitions of consumption, under the allowance allocation system that EPA is establishing in this rulemaking, consumption allowances that are expended to import or produce regulated substances are refunded if those regulated substances are later exported from the country. If EPA allocated allowances based on export

activity, and such entities maintained similar export activity in future years, those entities could receive double allowances (for an allocation based on export activity plus allowances refunded through the RACA mechanism). EPA does not think such double attribution is appropriate because, among other things, it would not accurately reflect the market. Finally, EPA notes that if an entity is not allocated sufficient allowances for the amount of regulated substances it is interested in acquiring, it can either transfer for allowances to import regulated substances directly, or purchase regulated substances on the open market that have already been produced or imported without an allowance.

Relatedly, one commenter argued that EPA should allow production of regulated substances for export without expenditure of consumption allowances, so long as a producer permanently designates the regulated substance for export and the substances are in fact exported. The commenter alleges that this would allow production of regulated substances near the end of a year for export in the following year. EPA notes at the outset that this comment is outside the scope of what was proposed in this rulemaking. EPA did not propose any alterations to the fundamental activities that require expenditure of allowances and did not propose or solicit comment related to creating an exemption for regulated substances produced for export. Further, even if this comment fell within the scope of this rulemaking, EPA disagrees with the commenter's suggestion. As explained in the prior paragraph, the AIM Act is clear in establishing caps on the level of consumption that can occur each year within the country. If production occurred in one year and export occurred in another year, EPA could be over the statutory cap established in the first year under the commenter's suggested approach.

Some commenters, as a part of a broader set of input on how the Agency could address anticompetitive behaviors (discussed elsewhere in the preamble), suggested in their individual comments that the Agency reduce allowance amounts for entities who have been found to be engaging in unfair trade practices, e.g., circumvention of applicable AD/CVDs. For example, the Agency could consider evaluating a percentage of their historical import activity for allocations, rather than the entire three-year average. Commenters also suggested that entities who import HFCs circumventing applicable AD/CVDs could have their future allocations

decreased by the same number of their unused allowances in the previous year.

As further explained in the following paragraph, EPA has determined that it is not appropriate to adjust for any unfair trade practices that have happened in the past when calculating allowance allocations. As noted, EPA is finalizing a methodology of allocation that is based on historic production and consumption from 2011 through 2019, which are years before the AIM Act was enacted and before EPA began the Congressionally-mandated phasedown of HFCs.

However, EPA emphasizes that the Agency is concerned about companies not complying with other similar HFC trade provisions, such as AD/CVDs, as violations of such provisions may create an unequal environment. Dumping refers to "when a foreign producer sells a product in the United States at a price that is below that producer's sales price in the country of origin ("home market"), or at a price that is lower than the cost of production."¹⁵ Foreign governments may subsidize industries by providing financial assistance to benefit the production, manufacture, or exportation of goods, thereby unfairly undercutting domestic producers. EPA has determined that the Agency is not the entity best positioned to handle these issues, and therefore has determined that it is not appropriate to account for these factors in the allocation methodology. DoC has been given statutory authority and mandates to address specific unfair trade practices that the commenter is concerned about, and DoC attempts to eliminate the unfair pricing or subsidies and the injury caused by such imports by imposing additional duties, termed countervailing subsidy duties. The amount of the subsidies the foreign producer receives from the foreign government is the basis for the subsidy rate by which the subsidy is offset, or "countervailed," through these higher import duties. Anti-dumping and countervailing duties are two ways that the United States addresses dumping and unfair foreign subsidies. The U.S. government can require that foreign companies involved in dumping and/or benefiting from subsidization are charged antidumping and/or countervailing duties. U.S. Customs and Border Protection (CBP) enforces AD/CVD laws by collecting the applicable cash deposits, administering AD/CVD entries, assessing and collecting final

¹⁵ "U.S. Antidumping and Countervailing Duties." *Trade.gov*, International Trade Administration. Available at <https://www.trade.gov/us-antidumping-and-countervailing-duties>.

AD/CVD, and enforces AD/CVD on imports that evade AD/CVD orders. This helps negate the value of the dumping/subsidization for foreign manufacturers and creates a fairer competition for manufacturers in the United States. In findings of dumping, DoC issues an order that requires importing entities to pay AD/CVD for goods covered by the order (e.g., in this case, certain HFCs and HFC blends). This remedy means that an effort by EPA to address dumping, in addition to being outside EPA's expertise, could have the effect of overcorrecting the unfair trade practice. Additionally, efforts from EPA to remedy unfair trade practices by way of allowance adjustments would require the Agency to determine details about factors including but not limited to scope, timing, appropriate premiums, rationale, and implementation criteria that EPA does not have sufficient information at this time to develop.

Accordingly, as discussed above, EPA is finalizing its proposed approach to base production allowance allocations on an entity's market share derived from the average of the three highest years (not necessarily consecutive) of production of regulated substances between 2011 and 2019 as reported to the GHGRP. EPA is finalizing its proposed approach to base consumption allowance allocations on an entity's market share derived from the average of the three highest years (not necessarily consecutive) of consumption of regulated substances between 2011 and 2019. If an entity does not have three years of data, EPA will take the average of the years between 2011 and 2019 for which each company imported HFCs.

Consistent with the regulations established in the Allocation Framework Rule,¹⁶ EPA will allocate consumption allowances to entities that imported bulk substances according to levels of historic consumption from 2011 through 2019 as reported to the GHGRP. Consistent with EPA's current practice, allowances will go to entities that "imported," meaning the entities responsible for the "land[ing] on, bring[ing] into, or introduc[ing] into" the United States (see 40 CFR 84.3 (definition of "importer")). This definition codified in 40 CFR 84.3 and pertinent to the phasedown of HFCs under the AIM Act is different than, and distinct from, what entities may meet EPA's regulatory definition of "importer" for an individual shipment. This approach

ensures that, for purposes of allowance allocation, only one entity receives credit as the "entity that imported" particular HFCs, as opposed to looking at any entity that could meet the definition of "importer" for an individual shipment, which could result in double, triple, or quadruple allocation of allowances since a number of entities could potentially be considered "importers" for an individual import action, even if they were not the entity that imported the regulated substance, such as customers of the entity that imported and others indirectly related to the import activity. EPA's approach also mirrors the AIM Act's phasedown provisions by distributing allowances to those entities that historically conducted the same activities now prohibited absent the expenditure of allowances (see 42 U.S.C. 7675(e)(2); 40 CFR. sections 84.5(a)(2), 84.5(b)(2)). Allowances are required for the act of importing, not subsequent transport, blending, or sale of regulated substances that have already been produced in or imported into the United States.

EPA will continue to rely on production, import, export, destruction, and transformation data reported to GHGRP for entity-specific consumption data.¹⁷ It is critical to develop an approach to allocation that helps ensure that only one entity receives credit as the "entity that imported" particular HFCs. Historically, EPA anticipates that only a single entity has reported import activity to GHGRP, since there is a single entity, which is "the person, company, or organization primarily liable for the payment of any duties on the merchandise" required to report a bulk HFC import to GHGRP (see 40 CFR. 98.416(c) (requiring "each bulk importer of fluorinated GHGs . . . [to] submit an annual report that summarizes its imports at the corporate level" if above specified thresholds); 40 CFR 98.6 (defining "importer")). That entity's requirement to assign a designated representative for GHGRP reporting purposes does not mean that the designated representative or alternative designated representative is the entity that is required to report to the GHGRP. See 40 CFR 98.4. However, EPA is

concerned that entities who took limited if any responsibility for the import, including responsibility for complying with EPA reporting requirements, may attempt to report import activity to GHGRP now that EPA has begun implementing the AIM Act and EPA allocates allowances based on historic import activity. EPA views this as problematic since if, for example, both a consignee and an importer of record received credit for the same historically imported HFCs, this would double-allocate allowances for that single shipment. This double-allocation would distort the allowance system such that it was not a best available reflection of historic patterns. For purposes of determining historic import levels, EPA intends to rely on the entity that has historically reported the imports for a shipment to GHGRP. If two or more entities reported the same import to GHGRP in prior reporting years, EPA would include that import in the allowance allocation calculation of the entity that first reported the import to GHGRP or assigned an employee or an authorized third party to report to GHGRP on the entity's behalf as a designated representative. EPA considers historic reporting to GHGRP as indicative of the entity that took primary responsibility for complying with EPA requirements for that import and considers this a critical data point to determining who to credit that import to.

For new market entrants that were allocated allowances in 2022 and 2023, EPA proposed an approach to allocate consumption allowances such that new market entrants would see an equivalent reduction in allowances between the 2022–2023 and 2024–2028 timeframes as general pool allowance holders. Since new market entrants did not receive allowances based on prior import history between 2011 and 2019, and many new market entrants have no such historic import activity, EPA proposed to create a value that can serve as a stand in for an average of the three highest years of consumption of regulated substances between 2011 and 2019 for each new market entrant. This approach is intended to ensure that new market entrants and general pool allowance holders would experience the same proportionate reduction between their 2023 allocation and their 2024 allocation after accounting for the stepdown caps and other factors, such as the number of application-specific allowances allocated, finalized changes to the baseline based on corrected historic reporting, or changes in the

¹⁶ EPA is finalizing a minor modification to the existing regulatory text in 40 CFR 84.11(a) to clarify EPA's position established in the Allocation Framework Rule that allowances are allocated to entities that have historic import activity.

¹⁷ The GHGRP requires various facilities and suppliers to annually report data related to GHGs to EPA (see 40 CFR part 98). 40 CFR part 98, subpart OO, "Suppliers of Industrial Greenhouse Gases," is the section relevant to reporting on HFC production and consumption. Because the HFCs listed as regulated substances under the AIM Act are industrial GHGs, EPA has collected data relevant to HFC production and consumption as defined under the AIM Act. Further discussion of the GHGRP can be found in the notices and dockets related to the Allocation Framework Rule.

number of entities who receive allowances.

The vast majority of commenters on EPA's proposed treatment of new market entrants supported EPA's approach, *i.e.*, the creation and usage of a stand in market share value. One of these commenters agreed with EPA's approach, but also asked EPA to consider issuing allowance allocations to previous new market entrants for calendar year 2024 through calendar year 2028 at the same level as 2022 and 2023. This commenter noted that the original allowance allocations to new market entrants were not large to begin with and therefore the total effect on the general pool would be small, and decreasing the allocations to these entities may potentially hamper their effective use.

After considering these comments, EPA maintains our view from the proposed rulemaking that it is appropriate for new market entrants to see an equivalent reduction in allowances between the 2022–2023 and 2024–2028 timeframes as general pool allowance holders. General pool allowance holders are entities that have historically been active in the HFC import market and have comprised the business sector supplying imported HFCs into the domestic market. As noted elsewhere, a priority for EPA in developing the allocation methodology has been to provide for a smooth and seamless phasedown as much as possible. Providing a greater number of allowances to new market entrants in a manner that does not account for the nationwide step down in HFC consumption would take away a relative share of allowances from the entities that have historically comprised this import business. The commenter has not provided a compelling reason why such an approach would be beneficial or reasonable as opposed to EPA's approach which would treat new market entrants equally to entities with historic imports. EPA does not agree with the commenter's claim that allocating at original allowance levels to new market entrants would have a small total effect on the general pool. On the contrary, new market entrants received in aggregate approximately 2.5 percent of the total consumption cap in 2023. If EPA were to allocate the same allowance totals to new market entrants in calendar year 2024 it would result in these entities receiving approximately 3.5 percent or greater of the total consumption cap. The commenter argued that decreasing the allocations to new market entrants may potentially hamper the effective use of allowances, but the commenter did not provide any

rationale or examples of why the commenter thought this would be the case. All allowance recipients will likely be facing a situation where they are allocated fewer allowances starting with calendar year 2024 than they received previously given the Congressionally-mandated phasedown of regulated substances. It is unclear to EPA why new market entrants would struggle more due to that phasedown than other entities and therefore why new market entrants should receive different, and arguably, preferential treatment over historic importing entities. Multiple entities that historically imported HFCs received a lower allocation amount of calendar year 2023 allowances than new market entrants, so there is no available argument that new market entrants have lower allocation amounts generally nor that there is some de minimis threshold under which EPA should not allocate. When facing lessening allowance allocation levels, companies may need to be more creative in their business models to make effective use of HFC consumption allowances, but there are many existing practices that could be employed to take full advantage of the level of allowances that are allocated. One such model is a limited container load model which would entail combining allowances with another entity who may be in a similar situation. Additionally, the restriction that new market entrants may not transfer allowances received as part of those initial provisions will no longer apply beginning in 2024, which may be useful to certain entities needing or desiring additional allowances.

One commenter objected to EPA's proposed treatment of new market entrants, stating that the Agency should not treat these entities in the same manner as historic importers for the purposes of allowance allocations past calendar year 2023. This commenter recommended that EPA conduct an audit of the performance and operations of each new market entrant prior to any further allowance issuance, and even if these entities were found to be legitimate and fully compliant with EPA's reporting regulations, the Agency should prioritize the allocation of HFC allowances to historic importers.

EPA does not agree with the commenter's general notion that the Agency should treat new market entrants in a lesser manner than entities with historic imports. EPA is sympathetic to constraints that are associated with the likely tightening market as the HFC phasedown proceeds, and already finalized regulatory provisions that allowed for a one-time

opportunity for new market entrants to apply for, and if eligible receive, allowances. As explained in the Allocation Framework Rule, EPA determined that it was appropriate to facilitate participation by new market entrants in the HFC import business at that early stage of the mandated phasedown. Given the AIM Act contemplates continued production and consumption of HFCs following the mandated phasedown of HFC production and consumption by 85 percent in the United States, EPA created a one-time opportunity for new market entrants to apply for a modest amount of consumption allowances to mitigate the potential for market barriers to companies looking to newly enter the HFC market and allow businesses experiencing such challenges to import HFCs directly without the additional step of purchasing allowances. After finalizing this opportunity in the Allocation Framework Rule and allowing new market entrants into the HFC allowance system, EPA does not see, and the commenter has not provided, a compelling reason to exclude these entities from the allowance system starting in 2024, after issuing them allowances in 2022 and 2023. All entities who received consumption allowances as new market entrants were subject to the regulatory application requirements in 40 CFR 84.15(d)(2), and the Agency applied an equal amount of scrutiny in evaluating each of their applications to ensure that certain criteria were met. Accordingly, new market entrants already demonstrated that they met regulatory criteria that were designed and finalized in the Allocation Framework Rule to determine eligibility to enter the allowance system. EPA disagrees that it is necessary or appropriate for the Agency to conduct an audit of the performance and operations of each new market entrant prior to any further allowance issuance. As noted, new market entrants were required to meet a list of regulatory requirements and submit various planning documents to EPA to be eligible for new market entrant allowances. EPA's review included an assessment of whether new market entrant applicants had a realistic plan to import HFCs were allowances granted. The commenter does not provide information on what type of audit on performance and operations would be appropriate and also provides no rationale as to why this would be appropriate to apply to new market entrants, but not other allowance recipients. If a new market entrant is not compliant with regulatory requirements,

EPA has tools available to deal with that noncompliance, including administrative consequences and any potentially appropriate enforcement action. The commenter did not provide a model or details on how the Agency might prioritize the allocation of HFC allowances to entities with historic imports over new market entrants, and given the limited pool of consumption allowances available and high interest in allowance allocations, EPA can only understand this call for prioritization to mean that new market entrants would receive no allowance allocation. As explained previously, EPA does not think such an outcome is appropriate.

Accordingly, EPA is finalizing the proposed approach to determine allowance allocations for new market entrants. As explained in the proposed rulemaking, EPA will determine a stand-in value based on the number of allowances allocated to each new market entrant in calendar year 2023 (which is identical to the number of allowances allocated for calendar year 2022) and the percent reduction all general pool allowance holders experience in calendar year 2023 relative to the average of their three highest years of consumption. For reference, each general pool allowance holder received allowances at a level 32.1 percent below their individual high three-year average in calendar year 2022 and at a level 31.8 percent below their individual high three-year average in calendar year 2023 due to the differing number of application-specific allowances that were allocated on September 30, 2022. For the purposes of creating a stand in value for new market entrants, EPA will divide each new market entrant's calendar year 2023 allowance value by the proportion of allowances received by general pool allowance holders relative to their high three-year average in calendar year 2023. Because general pool allowance holders received allowances equivalent to 68.2 percent of their high three-year average in 2023, a new market entrant that received 200,000 MTEVe of allowances in 2023 would be credited with approximately 293,255.1 MTEVe as the stand in for their high three-year average.

Consistent with EPA's proposal, and having received no adverse comments, EPA is also finalizing the following with respect to allocation to new market entrants. If any entity were to qualify under both the new market entrant and historic production or import methodologies, the Agency would allocate with the methodology that issues the greater number of allowances. If a company that has prior production

and/or import activity acquires a new market entrant and EPA provides approval after considering what has been acquired, such as physical assets, ongoing customer relationships and history (company portfolio), or market share, the Agency will add the new market entrant's high three-year average stand-in value to the acquiring entity's high three-year average consumption value and would use this value for future allocation determinations.

After determining eligibility (see section III.C of this preamble) and entities' market share, EPA is finalizing, as proposed, to use the same steps as described in the Allocation Framework Rule (86 FR 55147) and codified at 40 CFR 84.9(a)(2) through (4) and 40 CFR 84.11(a)(2) through (4) to determine an individual entity's allocation. Independently for production and consumption allowances, EPA would add every entity's average to determine a percentage market share of production and consumption allowances, respectively, for each entity. EPA would multiply each entity's percentage market share by the total amount of general pool calendar-year allowances available to determine each entity's production or consumption allocation.

2. What other allocation methodologies did EPA consider?

As indicated in the proposal to the Allocation Framework Rule (86 FR 27150, May 19, 2021), including in the section seeking advance comment to inform future rulemakings, EPA considered the appropriateness of other ways to undertake allowance allocation beyond allocating allowances to entities based on historic production and consumption activity at no cost (86 FR 27203). In considering different allocation mechanisms, EPA considered multiple factors, including ease of implementation for both the regulated community and the U.S. government; consistency with the AIM Act; facilitating an efficient market, such as by collecting and releasing data on production, import, and inventories of HFCs; transparency and certainty for regulated entities and the public; distributional effects, such as on new entrants; responsiveness to changing market conditions (e.g., companies entering or exiting the market, corporate mergers and acquisitions, significant quantities of allowances unexpended at the end of the year, or supply shortages or market disruptions for specific HFCs); small business implications; minimizing the opportunity for fraud; and other factors.

The proposal for the current rulemaking contains details about a fee-

based or auction system, including potential advantages as well as anticipated challenges, and for the reasons described therein, the Agency did not propose a fee-based or auction system to allocate allowances in this rule.

To facilitate our continued consideration, separate and apart from this current rulemaking, EPA invited advance comments on whether there are any current or potential future disadvantages with the currently proposed allocation system that could be addressed by an alternate allocation mechanism, as well as comments on design features or timing options for alternate allocation mechanisms that EPA could consider were the Agency to determine at a future point that changes are warranted. Individual comments are available in the docket to this rulemaking, and for information purposes, EPA is providing a summary of key points, though the Agency is not taking any final action based on these advance comments at this time.

A small number of commenters supported the general ideas and concepts of a fee-based or auction system, citing that such a system could, among other things: generate revenue to support continued research and development of, and also facilitate a faster transition to, climate-friendlier alternatives; help subsidize increases in the production capacity of alternatives; lower costs of HFCs for end users; provide better market transparency; decrease or eliminate fraud; and, eliminate the need for onerous recordkeeping. One of these commenters provided general guidrails for how a fee-based or auction system could be implemented. Generally, the comments in support of a fee-based or auction system were high level and provided minimal justification, rationale, or details on how to support their conclusions.

The majority of commenters opposed a fee-based or auction system, citing that such a system would destabilize the HFC market in the following ways: market pricing to produce or import HFCs would become artificially inflated with the cost potentially passed onto consumers; business continuity would be at a significant risk as there is no guarantee that the most efficient entities would receive allowances; availability of needed products to reclaimers would be negatively impacted; domestic production of goods containing HFCs may shift outside of the United States at the cost of domestic jobs and manufacturing; and, domestic interests may not be protected if additional foreign entities were allowed to

participate in such a system. Two commenters in opposition to a fee-based or auction system further argued that the AIM Act provides no express or implied authority for EPA to auction or to charge a fee for allocations or allowances.

One of these commenters also contended that the Agency must consider and respond to comments concerning AIM Act authority to impose a fee-based or auction system for allowances issued under the Act. The commenter contended that subsection (k) of the AIM Act, which states that section 307 of the CAA applies, specifically that the CAA requires that “[t]he promulgated rule shall . . . be accompanied by a response to each of the significant comments, criticisms, and new data submitted in written or oral presentations during the comment period.” The commenter asserted that while they provided extensive input on a fee-based or auction system during the public comment period for the Allocation Framework Rule, the Agency did not respond to those comments. The commenter concluded that EPA cannot avoid responding to comments in a proposed rulemaking (both the Allocation Framework Rule as well as the proposed rulemaking for this final rule) that explicitly raises the issue of allocating allowances through a fee-based or auction system simply by the Agency asserting that it is only inviting “advance comments,” specifically with respect to EPA’s implementation of its existing AIM Act authority for such a system.

As stated in this preamble and the proposed rulemaking, EPA is not pursuing a fee-based or auction system for allocation of allowances in this rulemaking. The proposal for the current rulemaking contains details about a fee-based or auction system, including potential advantages as well as anticipated challenges, and for the reasons described therein, the Agency did not propose a fee-based or auction system to allocate allowances in this rule. Comments on the auction system thus are not significant to this rulemaking. If EPA were to consider auctions in the future, the public would have an opportunity to comment on it at that time.

3. What did EPA consider in developing its final rule as to the appropriate entities to be allocated allowances?

As outlined in section III.B.1 of this preamble, EPA will be using a similar methodology to calculate allocation quantities as the initial framework used for allocating calendar year 2022 and 2023 production and consumption

allowances, with adjustments to accommodate new market entrants that received allowances pursuant to 40 CFR 84.15 on March 31, 2022. In developing this final approach, EPA considered whether to allocate production and consumption allowances to entities beyond those that have historic production and consumption.

As part of this deliberation, EPA considered whether allowance allocations can be used to incentivize certain behavior such as to maximize reclamation and minimize releases of regulated substances. Some commenters to the Allocation Framework Rule encouraged EPA to issue allowances to reclaimers. The result of this suggestion could be that reclaimers have allowances available to directly import virgin regulated substances that they could use to rebalance refrigerant blends that are slightly off specification after reprocessing recovered refrigerant. The allowances could be transferred to another entity to import or produce on the reclaimer’s behalf or could be used to ease a reclaimer’s ability to purchase regulated substances from another entity.

Many commenters on this particular issue expressed that issuing allowances to reclaimers who are not eligible under the proposed methodology is not a meaningful way to increase opportunities for reclamation. One commenter provided general support of granting consumption allowances to EPA-certified reclaimers on a proportional basis to the exchange value of the refrigerants they reclaim or destroy to foster smaller reclaimers who may not be prepared to import on a larger scale. One commenter suggested that EPA issue allowances to EPA-certified reclaimers to support rebalancing and increase the availability of additional material available to support industry needs; the commenter continued that considering the data available to EPA, public comments from various stakeholders including reclaimers, and the Agency’s experience in implementing the HFC phasedown, EPA has asserted no specific basis for rejecting the issuance of EPA-certified reclaimer allowances. The commenter argued that issuing EPA-certified reclaimer allowances would foster opportunities for HFC reclamation, thereby allowing more material to be returned for sale from rebalancing that would otherwise be sent for destruction and not used. The commenter also claimed that EPA has made no showing that it has meaningfully considered the requests of EPA-certified reclaimers with respect to issuing such allowances, thereby deviating from one of the AIM

Act’s mandates. Finally, one commenter suggested that any allowances used in pursuit of maximizing recovery and reclaim would be significantly more effective if allocated directly to certified reclaimers due to existing rigorous reporting obligations, rather than a general incentive for the general public that may not have experience in the reclamation field.

EPA does not view issuing allowances to reclaimers that are not eligible based on the methodology EPA is finalizing in this rulemaking as a necessary way to increase opportunities for reclamation. If EPA were to issue allowances specific to reclaimers based on some specialized status, EPA would reduce the number of allowances available to other general pool allowance holders, which includes certain reclaimers. EPA recognizes that reclaimers may need access to some amounts of a specification HFCs to rebalance reclaimed blends, but our understanding is that there are generally available mechanisms to access regulated substances without directly importing them. EPA notes that some reclaimers have historically imported HFCs and those reclaimers will receive allowance allocations under the methodology finalized in this rule based on historic consumption levels. Commenters have not provided a compelling argument as to why reclaimers that did not import HFCs have a particularized need to do so now, nor did commenters provide a defensible basis for how EPA would determine what quantity of allowances would be needed for rebalancing. Rather, EPA thinks it is most appropriate to continue to allocate to entities that have historically imported in order to minimize market disruptions. Even if certain reclaimers have a new need to directly import HFCs, EPA provided all entities, including reclaimers, the opportunity to enter the HFC import business through applying as a new market entrant to the set aside pool of allowances in accordance with 40 CFR 84.15. Several reclaimers applied for, and received, new market entrant allowances from the set-aside pool for calendar years 2022 and 2023. These reclaimers will be treated in a manner consistent with the previous discussion in section III.B.1 of this preamble. Further, HFCs can be purchased on the open market from other allowance holders, or other distributors and suppliers. The commenters have not explained in any detail why these three options are not sufficient to accommodate reclaimer needs, aside from general and conceptual arguments that may be

divorced from on the ground experiences and practice. The Agency also notes that previously reclaimed HFCs that meet the requisite technical standard for purity (*i.e.*, Air-Conditioning, Heating, and Refrigeration Institute (AHRI) 700–2016) for refrigerants may be used in lieu of virgin materials for the purposes of rebalancing, and commenters have not explained in any detail any considerations for how or why this additional option would be insufficient. Commenters have also not meaningfully engaged with the point that the phasedown of HFCs increases opportunities for use of reclaimed HFCs by restricting the amount of newly produced and imported HFCs that can enter U.S. commerce. Commenters have not explained why this increased market demand is not sufficient, nor why the increased market demand would necessitate or justify priority access to consumption allowances for reclaimers.

EPA disagrees with one commenter's characterization that by not issuing allowances to reclaimers, the Agency is not following through on the AIM Act's mandates, specifically subsection (h)(2)(A), which states that “[i]n carrying out this section, the Administrator shall *consider* the use of authority available to the Administrator under this section to increase opportunities for the reclaiming of regulated substances used as refrigerants” (emphasis added). As discussed in the proposed rulemaking, the Agency need not determine in this rulemaking whether this provision applies to this action—much less whether it establishes a requirement that may apply to other actions taken under the AIM Act—because even assuming that the commenter is correct that this provision creates a statutory obligation that applies to this rulemaking, the Agency has undertaken such consideration throughout this rulemaking process. Nothing in this statutory language requires that the Agency reach a certain result or use a certain mechanism; rather, it requires no more than that the Agency consider the potential to increase opportunities for reclamation of regulated substances used as refrigerants—and the Agency has done that in the context of this rulemaking, including in its development of the proposed rulemaking and in consideration of these comments and potential responses to them.

Moreover, in a separate rulemaking, the Agency is developing a proposed rulemaking for HFCs and their substitutes for the purposes of

maximizing reclamation and minimizing releases of HFCs from equipment. EPA issued a notice of data availability and draft report published in the **Federal Register** on October 17, 2022 (87 FR 62843) on the current United States HFC reclamation market and requested comment. EPA also hosted stakeholder meetings on November, 9, 2022, and March 16, 2023, to provide information on the upcoming rulemaking, as well as to provide an opportunity for stakeholder input and questions related to managing use and reuse of HFCs and substitutes. The agency also has been meeting with stakeholders individually and by participating in industry meetings. Comments submitted on the draft report, along with any input received during the stakeholder meetings and through other interactions with relevant stakeholders (*e.g.*, EPA participation in trade association meetings), will inform the future AIM Act subsection (h) proposed rulemaking.

One commenter argued that EPA should allocate to HVAC original equipment manufacturers (OEMs) because: an HVAC OEM allocation would substantially lower OEM and consumer costs and would reduce the chance of HFC market manipulation; in the absence of allocation, the HFC market could impede the market acceptance of alternatives; and an HVAC OEM allocation would encourage a more orderly HFC phasedown by placing appropriate responsibility on OEMs to transition to lower climate impact refrigerants, reduce charge volume, and promote more refrigerant recovery/reclamation. The commenter cited the Agency's allocation framework for application-specific end uses as demonstrating that an HVAC OEM allocation would be feasible.

The commenter did not provide details for how such an allocation category could, or should, be implemented. Additionally, the creation of such an allocation category would require the Agency to determine details about scope, eligibility, and implementation that EPA does not have sufficient information at this time to develop. The commenter also does not provide anything beyond a conclusory rationale as to why it would be appropriate to allocate allowances to HVAC OEMs, but not other OEMs. EPA's chosen allocation methodology that is being finalized in this rule distributes allowances to entities that historically conducted the same activities now prohibited absent the expenditure of allowances. The AIM Act and implementing regulations provide that “no person” shall “produce” or

“consume” HFCs “without a corresponding quantity of production or consumption allowances” (see 42 U.S.C. 7675(e)(2); 40 CFR 84.5(a)(2) and 84.5(b)(2)). The Allocation Framework Rule makes clear that the prohibition on “consumption” without corresponding allowances applies specifically to the act of import (see 42 U.S.C. 7675(b)(6) (defining import as landing on, bringing into, or introducing into the United States); 40 CFR 84.3 (same); 40 CFR 84.5(b)(1)(i) (requiring consumption allowances “at the time of the import”)). Accordingly, the regulations in 40 CFR 84.5(b)(1)(i) prohibit importing HFCs without corresponding allowances, and state that consumption allowances must be expended “at the time of import.” In short, allowances are required for the act of importing, not subsequent use of HFCs that have already been produced in or “imported” into the United States. EPA notes that OEMs that have historically directly imported will receive allowance allocations under the methodology finalized in this rule based on historic consumption levels. Commenters have not provided a compelling argument as to why OEMs that did not historically import HFCs have a particularized need to do so now, and rather EPA thinks it is most appropriate to continue to allocate to entities that have historically imported to minimize market disruptions. If certain OEMs that had not previously imported HFCs had wanted to enter the HFC import business, there was an opportunity to do so as a new market entrant to the set aside pool of allowances in accordance with 40 CFR 84.15. The creation of an OEM allocation category would have also required an accompanying proposal or solicitation of comment, neither of which were included in the proposed rulemaking, and as previously noted, the creation of such an allocation category now would require the Agency to determine details about scope, eligibility, and implementation that may be informed by a range of market data and other records to which the Agency does not currently have access. EPA also lacks information on how such an allocation category would holistically affect the regulated industry, including small businesses.

One commenter asserted that if EPA intends to require allowances to import blends containing regulated substances, allowances must be allocated to the entities who are importing or combining HFCs to create HFC blends, and not to the entities who are producing or importing the individual components of the blends. Specifically, the commenter

expressed concern that under the proposed allocation methodology, companies that blend HFCs will suffer an unfair and economically devastating mismatch between entities that receive allowances and entities that ultimately bear the burden of the allowance system.

To be clear, importing a blend of chemicals that includes regulated substances requires expending allowances to account for the regulated substances within the blend. EPA is making alterations to the regulations to further clarify and codify the Agency's existing position on this issue. Those changes and the rationale behind them are further outlined in section V.C. of this rule. As noted in the prior comment responses, EPA's chosen allocation methodology that is being finalized in this rule distributes allowances to entities that historically conducted the same activities now prohibited absent the expenditure of allowances. If an entity has historically imported a blend and reported that import as required to GHGRP (as is the case for this particular commenter), that entity will be eligible to receive allowances. An entity that does not directly import blends or individual HFC components, but combines HFCs obtained on the domestic market to create an HFC blend, is not eligible for allowances, although they could have applied as a new market entrant for set-aside allowances previously in accordance with 40 CFR 84.15. An entity not importing HFCs, but domestically creating an HFC blend, can continue to undertake that behavior without any need for allowances. The commenter has failed to provide reasons as to why an allowance allocation to such an entity is needed. The commenter states that "companies that blend HFCs will suffer an unfair and economically devastating mismatch," but does not explain why that would be the case. Without compelling arguments or evidence to support a contrary approach, EPA is finalizing the allocation methodology as proposed.

As noted previously in this section, EPA did not propose to establish, and is not finalizing, a set-aside pool of allowances beyond what was created in the Allocation Framework Rule and was allocated March 31, 2022. EPA recognizes that the goal of the AIM Act is to establish a national phasedown of HFC production and consumption by 85 percent by 2036, and therefore, while the Agency did offer a one-time opportunity of a set-aside pool of allowances for calendar year 2022 and 2023, EPA explained in the proposed rulemaking that it does not view further allocations for a set-aside pool and/or

allowances for entities who have not previously produced and imported HFCs as supporting the AIM Act's objectives, and accordingly is not establishing a new set-aside pool of allowances.

Several commenters expressed support of EPA's proposal to not establish a set-aside pool of allowances for calendar years 2024 through 2028. However, other commenters suggested that EPA should establish a set-aside pool during this period for entities to: develop new, innovative, or low-GWP HFC substitutes (for additional new market entrants as well as existing allowances holders seeking to develop alternatives for existing equipment); incentivize environmentally beneficial activities such as reclamation or recovery; provide a margin of safety pool for the semiconductor industry; or, to ensure against historical and current barriers that entities wishing to continue or enter in the HFC market may encounter, e.g., social inequities or disproportionate allocations to historic entities. One of these commenters suggested establishing a set-aside pool of allowances at 7.5 MMTEVe, with unused allowances being redistributed to the general pool.

With respect to the suggestion to establish a set-aside pool to develop new, innovative, or low-GWP substitutes, commenters did not provide a clear range of entities or activities that would meet the suggested category, other than being existing or prospective suppliers of HFCs or HFC substitutes. The Agency's views on issuing allowances to reclaimers that are not otherwise eligible based on the final methodology for 2024 through 2028 has been discussed elsewhere in this rule and, for the reasons explained in those discussions, EPA is not finalizing such a set-aside pool to incentivize reclamation. As for creating a margin of safety pool specifically for the semiconductor industry, the Agency reiterates that we did not propose to change the methodology for issuing application-specific allowances, and the existing application-specific allowance allocation methodology codified at 40 CFR 84.13 will continue to apply as finalized in the Allocation Framework Rule. Further, EPA has not heard concerns with sufficient specificity to believe that there is a need for a set-aside pool specific to the semiconductor industry *in addition* to the allowances already provided under the application-specific allocation. In applying for application-specific allowances, all eligible entities can provide information on unique circumstances facing their businesses, which are taken into

account in the Agency's calculation of application-specific allowance allocations.

As part of the Allocation Framework Rule, EPA conducted a preliminary review of entities that had previously imported HFCs and that were HCFC allowance holders (available in the docket for the Allocation Framework Rule) and solicited comment on whether any individuals have experienced structural barriers inhibiting their earlier access to the HFC import market, including if there was difficulty entering the HFC import market based on criteria such as business location, employment of socially or economically disadvantaged individuals, or other criteria related to business ownership, employee characterization, or business location. As explained in that rulemaking, EPA was interested in collecting the information requested to better understand whether such issues are affecting entry into this market and to explore future opportunities to ensure a more equitable marketplace. Commenters did not provide evidence or detailed information that would indicate that certain businesses have historically and could continue to experience difficulty entering the HFC market as a result of structural barriers or social or economic inequities. Our review of public comments received from the proposed rulemaking associated with this rulemaking did not yield any such records either.

Lastly, several commenters also provided suggestions for what the Agency might consider in the next allocation methodology, e.g., allowance incentives for destruction and a set-aside pool that prioritizes the top performers with respect to providing recovered refrigerants to reclaimers in the previous year. Comments explicitly framed as being for consideration in future rulemakings have not been considered for this final rule and the Agency is not responding to those comments at this time.

C. How is EPA accounting for past production or import activity to determine allocation eligibility?

To be eligible to receive general pool allowances for 2024 through 2028 based on historic production and import activity (*i.e.*, for entities that produced and imported regulated substances in 2011 through 2019), EPA proposed that an entity must have produced (for production and consumption allowances) or imported (for entities only receiving consumption allowances) HFCs in 2021 or 2022. EPA had a similar requirement in the Allocation

Framework Rule, specifically requiring production or import in 2020.¹⁸ As part of the proposal, EPA considered using a rolling set of years to confirm activity, but as explained in that rulemaking, using a rolling set of years would not provide the same stability since allowance holders could come into and out of the allocation system, thereby affecting everyone's relative share of available allowances and reducing predictability. EPA also explained that it does not want to incentivize entities in each subsequent rolling set of years' entities to continue importing or producing small quantities that would otherwise be outside the entity's plans in future years just to maintain position to receive future calendar year HFC allowances. EPA also took comment on simply basing allocations on historic reported data between 2011 and 2019, without including an additional eligibility requirement relating to whether the entity produced or imported HFCs in recent years, such as 2021 or 2022. The discussion in this section of the preamble referencing production or import activity in 2021 or 2022 is germane only to whether an entity was active in those years for the purposes of determining whether that entity is eligible to receive allowances. EPA is not evaluating the specific amounts that entities may have produced or imported in these years, and the Agency's finalized approach in confirming that entities were active in 2021 or 2022 should not be interpreted as EPA evaluating entity-specific activity in those years to inform the number of allowances that each eligible entity receives. The years that EPA is relying on to determine how many allowances each eligible receives is discussed elsewhere in the preamble. As noted in those other sections, EPA has concerns about how representative quantities produced or imported in 2021 and 2022 may be, but EPA has determined that some level of demonstrated activity in those years is still a useful metric for purposes of determining whether to allocate allowances.

Some commenters supported EPA's proposal of requiring activity in either 2021 or 2022 as a prerequisite for general pool entities receiving allowances. One commenter opposed the proposed qualification, citing that such a requirement could penalize entities who are trying to maximize

efficiency by outsourcing production or importation but who plan to remain in the market and service existing customers. The commenter suggested that the more relevant consideration would be whether an entity's allowances were expended in the affected years, and that if the Agency were to finalize this specific provision, that there be a way for entities to request unique consideration in the event they did not produce or import in 2021 or 2022.

EPA disagrees with the commenter. This additional eligibility requirement, that an entity has demonstrated import or production activity in 2021 or 2022, is intended to exclude entities from receiving allocations that are no longer undertaking the activities for which allowances are required (*i.e.*, production and import). Under the commenter's proposal, an entity that is transferring all of their allowances is no longer undertaking activities for which allowances are required. EPA understands that the commenter may be interested in receiving an allocation such that the commenter has allowances to sell and transfer, but the commenter failed to provide a rationale aligned with the AIM Act and the HFC phasedown program for why it would be appropriate in such a situation for EPA to continue to allocate to an entity that is not itself using allowances. Entities who choose to buy and sell HFCs within the United States, *e.g.*, as servicing companies or distributors, instead of directly producing or directly importing HFCs may continue to do so without receiving allowances. EPA is interested in avoiding allocating to entities that had historic import or production data in the 2011–2019 timeframe, but have since ceased operations or shifted away from HFC production or import. Allocating allowances to entities that cannot or will not use them could be disruptive to the market during the phasedown if allowances go unexpended or could result in windfall profits to an entity that will only use the allowances to transfer for a price. The practical effect of not allocating allowances to an entity due to their inactivity would be a pro rata increase of allocation levels to other entities receiving allowances from the general pool allocation.

One commenter suggested that EPA require entities to be active in the market in 2022 to receive allowances for 2024 through 2026. This commenter further provided a method for redistributing unused allowances. The commenter provided a formula that would allocate more in future years to entities that used more of their

allowances. For example, an entity that used 100 percent of its allowances in year 1 would receive more allowances in year 2 or 3 as a result of the number of unused allowances in year 1 than an entity who only used 80 percent of its allowances that year. The method would count transfers the same as if an entity used its allowances to produce or import. The commenter notes that such a model provides all the advantages that EPA is looking to achieve, including: relying on historic data from 2011 through 2019 for allocations; transparency of available data; ensuring that entities who are no longer active in the HFC market or active at all do not receive allowances; and adjusting for unrepresentative activity, *i.e.*, large numbers of imports in certain years prior to AD/CVD findings and actions, that might have informed previous allocations, but not be representative of more current real-world conditions.

EPA is not finalizing an approach in line with the commenter's suggestion. EPA disagrees with the commenter on the benefit of moving allowances away from entities based on a single year of allowance expenditure. There are many factors that could lead to an entity expending fewer allowances in a given year beyond a permanent shift in business model, such as a temporary change in customer demand or delays in a foreign supplier fulfilling contracts. In such situations, EPA does not want to establish perverse incentives to encourage an entity to expend allowances to import more HFCs than the entity otherwise needs or to otherwise penalize an entity that does a one-time transfer of allowances. Further, the commenter's model would require EPA to determine details about scope, criteria, and implementation for which we do not have sufficient information at this time to consider finalization of such a method. Additionally, the commenter's suggested pre-requisite for entities to have been active in 2022 as well as the commenter's proposed time period for when the model would apply are not consistent with the Agency's proposals. The commenter does not provide rationale for why evaluating only 2022 would be appropriate in lieu of evaluating either 2021 or 2022, nor does the commenter provide a rationale for why the Agency should issue allowances using the proposed model for 2024 through 2026 only.

Relying on information from 2021 or 2022 solely for the purpose of determining eligibility for allowances will ensure companies receiving allowances are still actively producing or importing regulated HFCs, regardless of who received allowances in calendar

¹⁸EPA also allowed for an entity to identify individual circumstances for not importing in that year due to the COVID-19 pandemic. EPA did not propose a mechanism to allow an entity to request individualized consideration if they did not produce or import in 2021 or 2022.

years 2022 and 2023. Allowing two years, as opposed to a single year, provides additional time to demonstrate activity in the market, and is intended to reduce the impacts of supply chain delays, temporary changes in demand, or other business decisions. Some entities also import small volumes of HFCs and may not need to import every year. Entities who would be eligible to receive allowances based on this criterion would not need to have produced or imported HFCs in both years, nor would entities need to have produced or imported at any particular level in either year.

EPA proposed to use a fixed set of years (*i.e.*, 2021 and 2022) to determine eligibility for entities to be allocated allowances for calendar years 2024 through 2028 to provide a degree of clarity and certainty to entities during this period and to minimize disruption to existing supply chains that have adjusted to the 2022 and 2023 allowance allocations. By finalizing this approach, all market participants will be able to generally understand their own and other allowance holders' market share for the 2024 through 2028 period as of October 1, 2023, because there would not generally be shifts in how many entities EPA is allocating allowances to and the relative share of allowances going to those entities. Looking to behavior in 2021 or 2022, specifically to determine whether entities were actively producing or importing HFCs, would also have administrative benefits to EPA. For example, determining annual allocations will be more streamlined because EPA will rely on data that has been vetted and reviewed at a single point in time in advance of the calendar year 2024 allocation as well as all allocations through calendar year 2028. The commenter's scenario is also one that the Agency was trying to avoid, *i.e.*, issuing allowances to entities that are no longer in the HFC production or import business.

The Agency provided one final opportunity, separate from the proposed rulemaking, to entities to verify, and if necessary correct, the data available to the Agency on entities' historic consumption activities from 2011 through 2021 for the purposes of the AIM Act. The Agency transmitted an electronic communication or letter to all entities that were known, or likely, to have had consumption activity of regulated substances from 2011 through 2021 that they had until September 26, 2022, to verify, and if necessary correct, such data. Additionally, in the proposal for this rulemaking, EPA stated that "[i]f there is any entity that did not receive

a letter or electronic communication from EPA that had consumption activity of regulated substances from 2011 through 2021, EPA is hereby providing notice that for the purposes of future HFC allowance allocations under the AIM Act, EPA will not consider any data unless submitted to EPA through the Electronic Greenhouse Gas Reporting Tool (e-GGRT) by the close of the comment period on December 19, 2022." The Agency was explicit that after this final opportunity for entities to make corrections to historic data, "EPA does not intend to consider any data revisions in allocation decisions" where the revisions would be taken into account when determining the annual allocation issued by October 1 of each year for 2024 and future year allocations (87 FR 66383). After consideration of the public comments on this issue, EPA continues to find these considerations compelling. Accordingly, the Agency will not consider any additional revisions to historic data for the purposes of allowance allocations for these years.¹⁹

EPA did not propose to allow companies that were inactive in 2021 and 2022 to request individualized consideration for whether they were active in the market, and EPA disagrees with one commenter's contention that it would be appropriate to do so. EPA allowed for individualized consideration for failure to import in 2020 in the Allocation Framework Rule, given 2020 was a strikingly unique year due to the COVID-19 pandemic and supply chain disruptions. Further, EPA was only looking to one year to verify company activity, whereas under this rule EPA is looking to see if a company was active in either 2021 or 2022. The commenter has failed to explain why those years produced unique challenges equivalent to the pandemic and supply chain disruptions of 2020 and also has failed to explain why looking across two years of data, as opposed to one, would not rectify any such challenges, *i.e.*, if 2021 were equally as challenging with respect to the pandemic and supply chain disruptions of 2020, any import activity in either 2021 or 2022

¹⁹Data submitted as of December 19, 2022, that has been certified and verified will be taken into account when determining the annual allocation issued by October 1 of each year for 2024 through 2028. EPA will not consider revisions after this date in the 2024 through 2028 and all future year allocations, where relevant. If information reveals an entity has provided false, inaccurate, or misleading information, EPA reserves the right to issue administrative consequences to adjust allowances downward (in the same year or a subsequent year). Regardless of whether or not EPA applies an administrative consequence, EPA may also pursue any and all appropriate enforcement action.

regardless of quantity would meet the Agency's proposed activity requirement. Allowing two years, as opposed to a single year, provides additional time to demonstrate activity in the market, and is intended to reduce the impacts of supply chain delays, temporary changes in demand, or other business decisions.

Accordingly, for the reasons discussed above, EPA is finalizing its proposal that to be eligible to receive general pool allowances for 2024 through 2028 based on historic production and import activity (*i.e.*, for entities that produced and imported regulated substances in 2011 through 2019), an entity must have produced (for production and consumption allowances) or imported²⁰ (for entities only receiving consumption allowances) bulk regulated substances in 2021 or 2022.

The Agency considered and took comment on whether new market entrants should be required to import in 2022 to be eligible for allocation of allowances for calendar years 2024 through 2028. Several commenters were supportive of requiring recipients of set-aside allowances as new market entrants to import in 2022 to be eligible for allocation of consumption allowances for calendar years 2024 through 2028. One such commenter suggested that EPA evaluate whether new market entrants' consumption activity in either 2022 or 2023 was consistent with EPA's rationale for allocating those allowances in the first place, *i.e.*, entities that did not use their allowances, or used their allowances in a manner that was wholly inconsistent with the new market entrant provisions, should not be eligible to receive allowances for calendar year 2024 through 2028. One additional commenter generally supported an approach where new market entrants must have imported in calendar year 2022 to receive allowances. Another commenter supported not requiring activity in 2022 for a new market entrant to be eligible for future general pool allowances, noting that some smaller entities might not have been able to amass resources to fully use their allowances in either 2022 or 2023. This commenter further cited that new market entrants may not have been able to order products or finalize agreements with parties such as banks and customs brokers until after issuance of their allowances on March 31, 2022.

²⁰EPA will look to the statutory and regulatory definition of "import" to determine whether an entity imported bulk regulated substances in 2021 or 2022. An argument that an entity could fall within the regulatory definition of "importer" will not be relevant to this analysis.

EPA disagrees with commenters that took the position that new market entrants should be required to import at some point in 2022 to be eligible to receive general pool allowances for calendar years 2024 through 2028. Most new market entrants are, as their name suggests, new to the HFC import market and would not reasonably be expected to have any import activity in 2021. At the same time, data for the 2023 period would not be available and verified in time for allocation decisions for the allocation of calendar year 2024 allowances. Therefore, if the Agency applied eligibility criteria to new market entrants at all, it would need to look to 2022 for import activity. Accordingly, for these entities, EPA would not be able to look across two years for import for most new market entrants, unlike for general pool participants. EPA anticipated that most new market entrants would make use of allocated allowances and import regulated substances in 2022, but EPA previously recognized that new market entrants might have difficulty operationalizing their business to begin importing regulated substances in 2022 if the entity was fully new to this aspect of the import business. As a result, in the Allocation Framework Rule the Agency took the position that EPA would “not reduc[e] allowances to new market entrants in 2023 for failing to use all the allowances issued in 2022” (86 FR 55159). The commenters do not provide any rationale to counter these concerns raised by EPA in the proposal. The commenters also do not provide rationale on why it would be appropriate to look to only one year of data for entities that were brand new to the HFC import market, while allowing historically active companies to produce or import at any point in any quantity over a two-year span. Such an approach would seem to disadvantage entities that could have significant difficulty living up to such a requirement. A commenter suggested that EPA evaluate whether new market entrants’ consumption activity in either 2022 or 2023 was consistent with EPA’s rationale for allocating those allowances in the first place, but does not explain what it would mean for a new market entrant to use their allowances in a manner that was wholly inconsistent with the new market entrant provisions or how EPA would implement such a provision. EPA recognizes that entities who received allowances as new market entrants are in a variety of industries, and therefore determining whether they used the allowances in a manner consistent with the new market

provisions would require us to determine details about scope, criteria, and implementation across each of the affected industries, *i.e.*, one size does not fit all. We do not have sufficient information at this time to make such determinations. The Agency also notes that the vast majority of these entities did import regulated substances and have had direct contact with EPA by way of required reporting or direct emails regarding implementation of the HFC phasedown. Accordingly, EPA is finalizing an approach that will not require any import activity of new market entrants for those entities to be eligible for allocation of calendar year 2024 through 2028 allowances.

To determine entities’ eligibility for allowance allocations, EPA will rely on data that have been reported pursuant to the 40 CFR part 84 requirements. EPA will rely on data reported no later than February 14, 2023, which aligns with the reporting deadline for fourth quarter calendar year 2022 HFC reports under the HFC allocation requirements at 40 CFR part 84, subpart A.²¹ Further, EPA is finalizing as proposed that in cases where allowances were not expended at the time of production and/or import of HFCs, that production and import would not count as activity for eligibility purposes. In other words, EPA will only consider production and import of HFCs where allowances were expended as required when determining whether an entity is eligible for allowances. For example, imports where entities received non-objection notices for transformation or destruction, and imports where entities have notified EPA of transshipments consistent with our regulations will not be eligible for consideration when determining whether an entity is eligible for allowances. Additionally, entities who imported or attempted to import regulated HFCs in 2022 (absent 2021 import activity) without the necessary allowances will not be eligible to receive allowances beginning in 2024, even if they had historic import activity between 2011 and 2019. The distinction of 2022 versus 2021 import activity is integral in this particular circumstance because there were no HFC phasedown-driven limits on import activity in 2021, whereas the phasedown of HFCs instituted controls on import activity by way of consumption allowances beginning in 2022. To reiterate, entities who had production or import activity in either 2021 or 2022 would be eligible for production and/or consumption

allowances, unless an entity only has activity in 2022 that occurred without any required allowance expenditure.

Related to the criteria for appropriate entities to receive allowances, the Allocation Framework Rule provides an extensive discussion of how EPA may remedy activity by entities that violate DoC and CBP trade laws via administrative consequences. The proposed rulemaking associated with this final rule did not explicitly speak to these types of anticompetitive behaviors, *e.g.*, AD/CVD findings, or any potential remedies. However, the Agency received at least eight comments during the public comment period for this proposed rulemaking offering a variety of mechanisms for how EPA may address such behavior. One set of suggestions was for the Agency to either not issue allowances to, or revoke allowances from, entities who have circumvented AD/CVDs because their share of the U.S. HFC market was initially established through the sale of unfairly traded (*i.e.*, dumped) imports and that share was subsequently maintained based on circumvention of the antidumping duty orders issued by the DoC. Commenters suggested that any otherwise unissued or revoked allowances should be distributed to domestic producers of HFCs.

As discussed elsewhere in the preamble, EPA has determined that it is not appropriate to base allowance allocation calculations on any unfair trade practices that have happened in the past, specifically in the 2011 through 2019 timeframe before the AIM Act was enacted and before EPA began the Congressionally-mandated phasedown of HFCs. However, EPA emphasizes that the Agency is concerned about companies not complying with all trade provisions applicable to the import of HFCs, including any AD/CVDs, as violations of such provisions may create an unequal environment. In the Allocation Framework Rule, EPA finalized a requirement that any entity importing HFCs subject to an AD/CVD order issued by DoC that received allowances must provide documentation of payment of the AD/CVD duties for HFCs imported from January 1, 2017, through May 19, 2021, the date of the proposed rulemaking, or provide evidence that those imports were not subject to AD/CVD for those years. Commenters also suggested applying administrative consequences to the allowances of circumventing importers; eliminating or reducing the ability for circumventing importers to transfer allowances; and, reducing allowance amounts for circumventing importers (the last of

²¹ For more information, visit <https://www.epa.gov/climate-hfcs-reduction/hfc-allocation-rule-reporting-and-recordkeeping>.

which is discussed elsewhere in the preamble). As discussed in the Allocation Framework Rule, there are a variety of situations or circumstances in which EPA may exercise its authority and discretion to levy administrative consequences. This would include a situation where an entity has not paid a required AD/CVD within the required time frame. However, EPA's determination to issue administrative consequences is generally separate from this rulemaking and would be based on the specific situation or circumstance identified. EPA will continue to consult intergovernmental partners, e.g., CBP, as appropriate.

D. Can allowances be transferred or conferred prior to the calendar year?

EPA proposed to clarify that entities may confer or transfer allowances at any point after they are allocated until the allowance expires at the end of the calendar year for which it was allocated. In the Allocation Framework Rule EPA established 40 CFR 84.5(d), which provides that all production, consumption, and application-specific allowances are valid only for the calendar year for which they are allocated (i.e., January 1 through December 31). The intent of this provision was to state that allowances could only be expended in the calendar year for which they were issued. However, EPA recognized at proposal that use of the term "valid" could be read as ambiguous with regard to whether it allows for transfers and conferrals before the calendar year. Allowances can only be expended to cover imports or production in the calendar year for which they are allocated, but EPA proposed to amend 40 CFR 84.5(d) to more clearly state that entities may confer or transfer allowances before January 1 of the calendar year.

Commenters widely supported EPA's proposed revision to resolve potential ambiguity. Commenters stated that this clarification will smooth business transactions and reduce potential delays. EPA received no adverse comment on this proposed revision. As a result, EPA is finalizing the proposed amendment to the prohibition in 40 CFR 84.5(d) to more clearly state that entities may transfer and confer their allowances upon their allocation, including ahead of January 1 of the calendar year for which the allowances were allocated. This amendment does not permit an allowance holder to expend an allowance valid in one calendar year in any other year, e.g., a calendar year 2024 allowance can only be expended for a regulated substance

produced or imported in 2024 even if the allowance was transferred or conferred in the last quarter of 2023.

The Agency hopes that this added clarity will facilitate allowance holders' planning for that upcoming year. EPA encourages allowance holders, including application-specific allowance holders, to undertake transfers and conferrals early in the year and, where possible, well in advance of when regulated substances would need to be produced or imported. For more information on when a producer and importer must possess and expend allowances, see 40 CFR 84.5, with the changes being finalized in this rule discussed in section V.A of this preamble.

EPA also received comments stating that the existing 5 percent transfer offset was too high. Multiple commenters recommended that the Agency reduce the offset, such as to 1 percent or 0.1 percent, to encourage transfers and facilitate a smoothly operating transfer market. One commenter directly asserted that EPA effectively reopened the 5 percent offset provision because the offset is directly related to EPA proposals to clarify the timing of allowance transfers and other transfer-related provisions concerning the submittal of importer of record information, requirements related to transfers, and those required of repackagers.

EPA responds that the Agency did not reopen the transfer offset provisions in this rulemaking's proposal, did not solicit comments on the matter, and did not propose revisions to the transfer offset provisions. Comments on this issue are out of scope for this rulemaking. Generally speaking, an agency reopens an issue when it either explicitly or implicitly indicates it is reexamining its former choice. *National Min. Ass'n v. U.S. Dept. of Interior*, 70 F.3d 1345, 1351 (D.C. Cir. 1995). A reviewing court will consider whether "the entire context" of a rulemaking demonstrates that the Agency is substantively reconsidering an existing regulation. *Growth Energy v. EPA*, 5 F.4th 1, 21 (D.C. Cir. 2021). Nothing in EPA's proposal suggests that EPA was substantively reconsidering the transfer offset amount. The proposal to clarify the timing of allowance transfers in 40 CFR 84.5(d) in no way implies that EPA is reconsidering the transfer offset amount codified in 40 CFR 84.19(a)(1). Neither does the invitation for comment on the proposed new paragraph in 84.19(a)(5) clarifying that allowances can be expended by companies with specified affiliation without a transfer. See, e.g., *National Ass'n of Reversionary*

Property Owners v. Surface Transp. Bd., 158 F.3d 135, 142 (D.C. Cir. 1998) ("When an agency invites debate on some aspects of a broad subject . . . it does not automatically reopen all related aspects including those already decided.").

Even if this issue was reopened as part of this rulemaking, which it was not, commenters did not provide any information that would lead EPA to change its decision as to the appropriate parameters for the transfer offset provision. As discussed in the Allocation Framework Rule at 86 FR 55154, the AIM Act provides significant discretion to EPA in choosing an appropriate offset level. The Agency considered public comments during development of the Allocation Framework Rule and concluded that a five percent offset was the right value to balance a net environmental benefit without creating an overly burdensome requirement that would discourage trading necessary to meet market demands. Allowances are issued to companies at no cost and transferors retain 95 percent of the value of something provided for free if they choose to transfer those allowances. Furthermore, allowances are not a property right of the allowance holder and EPA has been directed by Congress to require an offset if companies choose to transfer those allowances. EPA is not taking final action with respect to the transfer offset provisions in this rulemaking.

IV. How is EPA updating the consumption baseline?

Subsection (e)(1) of the AIM Act directs EPA to establish a production baseline and a consumption baseline and provides the equations for doing so. In the Allocation Framework Rule, EPA initially calculated and codified the production and consumption baselines according to the formulas outlined in subsection (e)(1) of the AIM Act. In this rulemaking, the Agency proposed to update the consumption baseline to account for corrected data. In this action, EPA is finalizing an updated consumption baseline, and associated phasedown schedule, to account for these corrected data.

The AIM Act instructs EPA to calculate the consumption baseline by, among other things, using the average annual quantity of all regulated substances consumed in the United States from January 1, 2011, through December 31, 2013. In subsection (e)(2)(C) of the AIM Act, Congress provided the HFC phasedown schedule measured as a percentage of the baseline. In the Allocation Framework

Rule EPA codified the consumption baseline as 303,887,017 MTEVe at 40 CFR 84.7(b)(2) and the total allowance quantities that could be allocated for each year at 40 CFR 84.7(b)(3). A complete description of EPA's process in developing the codified baseline figure can be found in the Allocation Framework Rule at 86 FR 55137–55142.

After EPA finalized the Allocation Framework Rule, one company informed EPA that the 2011 and 2012 HFC import data that it had reported to the GHGRP and certified per 40 CFR 98.4(e)(1) as true, accurate, and complete under penalty of law, was, in fact, significantly more than its actual import quantities. Because EPA used the company's 2011 and 2012 HFC import data in the calculation of the consumption baseline, the Agency's calculated and codified consumption baseline was high. The company then submitted and certified revised reports. EPA verified the corrected data by reviewing the importer's invoices and comparing the reported data to import data provided by CBP.

In this rulemaking, the Agency proposed to update the consumption baseline and associated phasedown schedule based on corrected and verified data from the one company that identified an error in its historic reporting. Specifically, EPA proposed to revise the consumption baseline from 303,887,017 MTEVe to 300,257,386 MTEVe, a decrease of 3,629,631 MTEVe, to account for that error. The Agency also stated that it would include any additional verified data revisions from the 2011 through 2013 timeline in the revision to the consumption baseline.

As described in the proposal, separate from and concurrent with this rulemaking, EPA provided an opportunity for entities to verify, and if necessary correct, the data²² available to EPA on those entities' historic consumption activities from 2011 through 2021 for purposes of the AIM Act. EPA sent an electronic communication or letter to all entities that were known, or likely, to have had consumption activity of regulated substances from 2011 through 2021 that they had until September 26, 2022, to verify, and if necessary correct, the data available to EPA on those entities' historic consumption activities from 2011 through 2021.²³

²² These data were certified per 40 CFR 98.4(e)(1) by the importer as true and accurate under penalty of the CAA at the time of original submission.

²³ This request was for purposes of implementing the AIM Act. Nothing in this letter or in the complementary process described below relieves any entity of obligations under the GHGRP regulations codified in 40 CFR part 98. EPA notes

EPA provided further notice through this rulemaking's proposal of a final opportunity to submit corrected data to the Agency through e-GGRT by the close of the comment period on December 19, 2022, in the case that any entity with consumption activity of regulated substances from 2011 through 2021 did not receive a letter or electronic communication from EPA. To allow EPA to verify the reported data in a timely manner, anyone reporting past consumption data for the first time must have provided transactional records (e.g., bills of lading, invoices, or CBP entry forms). Through EPA's data review, approximately 10 additional entities provided verifiable revised values for reporting years 2011 through 2013.

Multiple commenters supported EPA's proposal to adjust the consumption baseline to reflect corrected historical data. With respect to adverse comments on the proposal, one commenter expressed concern that the consumption baseline does not reflect the market's growth since the baseline years of 2011 through 2013. Another commenter stated that the Agency should account for an anticipated need of additional HFCs for heat pumps, and underreporting due to smaller producers and importers being under the threshold of reporting to the GHGRP, by increasing the consumption baseline.

EPA disagrees with comments opposed to EPA's proposal. Subsection (e)(1) of the AIM Act provides specific formulas that describe how to establish the baselines and specifies data that enter into these formulas. In this rulemaking's proposal, the Agency described the data collection and verification efforts used in the Allocation Framework Rule to establish the consumption baseline and in this rulemaking to revise the consumption baseline (86 FR 66382–66383). EPA does not have discretion to increase the consumption baseline based on one commenter's understanding of market growth after the baseline years, which are identified in the statute, or another commenter's claims regarding possible future demand. In response to one commenter's suggestion that EPA needs to adjust the baseline to account for underreporting due to smaller producers and importers being under the threshold of reporting to the GHGRP, EPA disagrees with the commenter's premise that there is a notable flaw in EPA's codified baseline as a result of GHGRP reporting thresholds. As discussed in

that failure to submit a report or reporting a fraudulent report may be considered a violation of the CAA subject to penalties and fines.

the Allocation Framework Rule (86 FR 55140–55141), the Agency used multiple appropriate sources of data to calculate the consumption baseline, conducted significant outreach in its data collection efforts, and specifically attempted to contact through letters and emails companies that may not have been reporting to GHGRP because they were below the GHGRP reporting threshold. EPA has also provided extensive public notification through a variety of venues of how reported data is used to establish the baseline. Entities have had numerous opportunities to correct potential underreporting due to being under the threshold of reporting to the GHGRP. The Agency used this more complete dataset, including later opportunities to correct data as described in this section, to establish and update the consumption baseline. The proposal in this rulemaking to adjust the consumption baseline was narrowly limited to correcting data that contribute to the previously established consumption baseline and through the processes described above, and did not implicate the general approach used to calculate the baseline.

One commenter stated that the baseline data should be open and searchable so the public can review and identify errors. As noted in the initial Notice of Data Availability (86 FR 9059, February 11, 2021) and the Allocation Framework Rule (86 FR 55191–55195), the Agency acknowledges the importance of data transparency and accountability. EPA intends to release certain available data to the public while respecting information entitled to confidential treatment. The most recent release of data is available at <https://www.epa.gov/ghgreporting/ghgrp-data-relevant-aim-act>. However, the company-specific data, including production, import, export, and destruction data, used to establish the baselines are confidential and cannot be publicly released. As discussed in the Allocation Framework Rule (86 FR 55192), many of the data elements reported to 40 CFR part 98 subpart OO were determined to be, and are treated as, confidential by EPA (see, e.g., 76 FR 30782, May 26, 2011; 76 FR 73886, November 29, 2011; 77 FR 48072, August 13, 2012, 78 FR 71904, November 29, 2013; and, 81 FR 89188, December 9, 2016).²⁴ Transactional records also include information that is not publicly available. EPA has provided aggregated information concerning baseline data as available,

²⁴ For a summary, see https://www.epa.gov/sites/production/files/2020-09/documents/ghgrp_cbi_tables_for_suppliers_8-28-20_clean_v3_508c.pdf.

such as in a memorandum titled “HFC Production and Consumption Data—Final Rule”, available in the docket for the Allocation Framework Rule (Docket ID No. EPA–HQ–OAR–2021–0044). In this action the Agency is providing additional aggregated information concerning changes to the consumption baseline in a memorandum titled, “Docket Memo on Revisions to HFC Consumption Baseline”, available in the docket for this rulemaking. However, given the confidentiality of most data involved in the Agency’s baseline calculation, it is not feasible for EPA to release information detailed enough to meet the commenter’s request for an open and searchable dataset that allows the public to review and identify discrepancies to the baseline data while respecting existing confidentiality determinations and governing regulations.

As part of EPA’s review process, EPA also identified an additional update to be made to the consumption baseline calculation to improve accuracy. Specifically, EPA reviewed offsite transformation and destruction totals reported by companies for the 2011–2013 period, and—after filtering out

totals already reported elsewhere as onsite transformation and destruction—subtracted these totals from overall consumption. Additional information on this change can be found in the memorandum titled, “Docket Memo on Revisions to HFC Consumption Baseline”, available in the docket for this rulemaking. EPA changed the production baseline in a separate action to reflect the additional transformation and destruction identified.

Based on the considerations discussed above, EPA is finalizing updates to the codified consumption baseline with the corrected data. Incorporating the corrected data from this rulemaking’s proposal, and further updates separate from this rulemaking, EPA is revising the consumption baseline from 303,887,017 MTEVe to 302,538,316 MTEVe, which is a decrease of 1,348,701 MTEVe. The Agency reiterates here that EPA did not reopen the production baseline in this rulemaking.

The revision of the consumption baseline amounts to less than a 1 percent change in the baseline. Once EPA applies the relevant phasedown step to the baseline and then allocates

the resulting allowances among eligible recipients, the change in the consumption baseline is expected to have a small effect on individual entities’ allocations. Further, this revised consumption baseline starts affecting allowance allocations for calendar year 2024. Because of the prior framing of EPA’s regulations, specifically the fact that there was no prior allocation methodology that would apply to calendar year 2024 allowances and beyond, no entities should have had a reasonable expectation of allowance allocation levels for any individual entity. Therefore, EPA expects that this alteration of the consumption baseline will not affect the regulated communities’ reasonable reliance interests.

Revising the consumption baseline changes the total consumption cap in MTEVe for regulated substances in the United States in each year after the revision takes effect. Therefore, EPA is revising the table of production and consumption limits at 40 CFR 84.7(b)(3) by replacing the current values in Table 2, column 2 of this preamble with the values in column 3.

TABLE 2—REVISED LIMIT OF TOTAL CONSUMPTION ALLOWANCES

Year	Previously codified total consumption (MTEVe)	Revised total consumption (MTEVe)
2024–2028	182,332,210	181,522,990
2029–2033	91,166,105	90,761,495
2034–2035	60,777,403	60,507,663
2036 and thereafter	45,583,053	45,380,747

V. How is EPA revising requirements related to allowances for import?

EPA made several proposals based on the experience gained in implementing the HFC phasedown program to date under the existing 40 CFR part 84 regulations. In this section, EPA discusses amendments to codify the point in time that an allowance must be expended as well as who can expend allowances. We also discuss a regulatory amendment to clarify the existing requirement that allowances must be expended to import bulk regulated substances regardless of whether the import is of an HFC that is imported as a single component substance (such as HFC–134a) or whether the HFC is part of a multicomponent substance (such as HFC refrigerant blend R–410A). Additionally, EPA discusses a proposed amendment concerning importation of heels when the precise weight of a container of regulated substances is unknown, which EPA is not finalizing.

A. Codifying the Point in Time That an Allowance Must Be Expended To Import Regulated Substances

Under 40 CFR 84.5(b)(1) EPA prohibited persons from importing bulk regulated substances except, among other conditions and with limited exceptions, “[b]y expending, at the time of the import, consumption or application-specific allowances in a quantity equal to the exchange value-weighted equivalent of the regulated substances imported.” Through implementing the HFC allocation system, EPA has described the exact point in time used to determine which calendar year allowance would need to be expended for each import of a regulated substance. EPA has spoken explicitly to this issue, including through a December 21, 2021, post on our HFC phasedown Frequently Asked

Questions web page.²⁵ EPA stated that a marine vessel waiting off the coast of the United States in December 2021, that berthed in January 2022, would be required to expend a calendar year 2022 allowance for any HFCs that berth at a port in the United States in 2022. EPA proposed to incorporate this previously stated interpretation into the 40 CFR part 84 regulatory text. Specifically, EPA proposed to revise the prohibition language in 40 CFR 84.5(b)(1)(i) to remove the point that an allowance must be expended “at the time of import” and instead require that an allowance be expended at the time of ship berthing²⁶ for vessel arrivals, border crossing for land arrivals such as

²⁵ EPA. Phasedown of Hydrofluorocarbons Final Rule Frequently Asked Questions. <https://www.epa.gov/climate-hfcs-reduction/phasedown-hydrofluorocarbons-final-rule-frequently-asked-questions>.

²⁶ EPA has and continues to interpret berth to mean “to moor (a ship) in its allotted place at a wharf or dock.”

trucks, rail, and autos, and first point of terminus in U.S. jurisdiction for arrivals via air.

A few commenters noted their support of EPA's proposal to codify the point in time that an allowance must be expended to import bulk regulated substances. One commenter noted that finalizing this proposal would serve to reduce uncertainty. EPA received no adverse comments on this proposal.

EPA is finalizing the regulatory revisions as proposed to incorporate the Agency's preexisting interpretation on when an allowance must be expended to import bulk regulated substances. Providing specificity on this point in the regulations helps ensure consistent and accurate accounting associated with allowance use for all importers. For context, the point in time that a vessel berths, a truck or other vehicle crosses the border for land arrivals or the first point of terminus in U.S. jurisdiction for planes may be reflected as the "Conveyance Arrival" date for shipments, which importers or their brokers with access to the Automated Broker Interface (ABI) may find through an ACE Cargo Manifest/In-Bond/Entry Status Query. However, regardless of the date identified in ABI as the "Conveyance Arrival," it is the importer of record's obligation to ensure that it has expended the appropriate calendar year allowances in the appropriate quantity and at the appropriate time to align with regulatory requirements.

EPA is not amending the regulatory definition of "import." The Allocation Framework Rule at 40 CFR 84.5(b)(1)(i) prohibits the importation of bulk regulated substances without expending the required allowances, with limited exceptions. Since the definition of "import" in the AIM Act and the 40 CFR part 84 regulations finalized in the Allocation Framework Rule includes an "attempt to land on, bring into, or introduce into, any place subject to the jurisdiction of the United States," it is clear that the existing statutory and regulatory framework prohibit an entity from attempting to land, bring, or introduce regulated substances into the United States without expending the required allowances, unless the importer meets one of the limited exceptions in the regulations. EPA does not intend or interpret this regulatory definition to narrow prohibited behavior as defined under the AIM Act and the associated scope of liability with attempts to land, bring, or introduce regulated substances into the United States without requisite allowances.

To codify this position clearly, EPA proposed to add language at 40 CFR 84.5(b) that states: "No person may

attempt to land bulk regulated substances on, bring regulated substances into, or introduce regulated substances into, any place subject to the jurisdiction of the United States without meeting one of the categories set forth in 40 CFR 84.5(b)(1)." EPA did not receive any adverse comments on this proposal and is finalizing this requirement as proposed. These changes to 40 CFR 84.5(b) do not alter the existing scope of liability for attempting to land, bring, or introduce regulated substances into the United States without requisite allowances.

EPA proposed an alternative to revise the text at 40 CFR 84.5(b)(1)(i) to specify that the calendar year allowances that must be expended are based on the time a ship berths for vessel arrivals, border crossings for land arrivals, and first point of terminus in U.S. jurisdiction for arrivals via air. This alternative proposal focused on defining which calendar year of allowances would be required to be expended rather than the precise point in time an allowance needs to be expended. EPA did not receive any comments that supported this alternative proposal or otherwise advocated for the Agency to take this pathway at finalization over the primary proposal. As noted earlier in this section, EPA is finalizing the primary proposal to codify the point in time an allowance must be expended, so the Agency is not finalizing this alternative.

EPA noted at the proposal stage that if the Agency were to finalize the proposed regulatory revision to 40 CFR 84.5(b)(1)(i), EPA proposed to also require that the importer of record be in possession of allowances in the amount that will need to be expended at the time of filing their advance report under 40 CFR 84.31(c)(7). A few commenters were opposed to this aspect of EPA's proposal. One commenter noted that since the purpose of the advance notification requirement is for EPA to confirm that an importer has sufficient allowances available to import a regulated substance, this additional requirement is unnecessary since an entity must have allowances before being notified that they may proceed with an import. Another commenter noted that EPA had not fully analyzed whether this proposed requirement was necessary considering other enforcement and compliance tools. EPA agrees to some extent with commenter's characterization. As explained in the Allocation Framework Rule, the advance notice reporting requirement is intended to allow "EPA to verify if allowances are available or the HFCs have prior approval for import in the case of HFCs imported for destruction or

transformation under 40 CFR 84.25, or imported for transshipment under 40 CFR 84.31(c)(3), and confirm whether a shipment should be allowed to clear Customs or not" (86 FR 55186). However, the advance notice reporting requirement cannot function as intended without an entity possessing allowances at the time the notification is made. For example, if an entity received a transfer of allowances moments before a ship berthing, that entity would have allowances at the time the allowances must be expended, but the advance notification process would not have been able to function as intended. If an entity does not possess requisite allowances for the import of bulk regulated substances at the time of the advance notice reporting, EPA will not be able to verify if allowances are available and whether the shipment meets EPA's HFC requirements to be released from CBP's custody. Given that advance reporting is required near in time to when allowances must be expended, EPA does not anticipate this requirement would be a burden on regulated entities but does anticipate it would have significant benefits for EPA implementation and enforcement efforts. For example, ensuring that entities possess the requisite allowances for an import of bulk HFCs at the time of advance notice reporting will help decrease unnecessary EPA review of shipments, which in turn will help decrease delay in CBP clearance. Entities will be better positioned to take legal possession of their bulk HFC goods from both an EPA and CBP perspective as soon as possible. Therefore, EPA is finalizing the requirement as proposed.

B. Who must expend allowances for import?

EPA proposed to specify that only the importer of record can expend allowances for an import of regulated substances. One commenter agreed that this proposed requirement "facilitates clarity, transparency and accountability" and that it is consistent with customs law for the importer of record to be the sole designated party in this regard. EPA acknowledges the commenter's support. EPA received no adverse comment on this proposal. For the following reasons, EPA is finalizing this amendment as proposed. Under CBP requirements, the importer of record is ultimately responsible for the correctness of the entry documentation and all associated duties, taxes, and fees.²⁷ Specifying that only the importer

²⁷ CBP. Tips for New Importers and Exporters. <https://www.cbp.gov/trade/basic-import-export/importer-exporter-tips>.

of record can expend allowances for an import facilitates clarity, transparency, and accountability. It can be difficult for EPA to compare import records and other filings from CBP against advance notification records and the balance sheet of existing allowance holders without a clear expectation of how the entity that will expend allowances for an import of regulated substances would be identified in CBP filings. This can slow down EPA and CBP processing of imports at a minimum, and in the worst-case scenarios can hamper EPA's ability to identify shipments to be held at the border to halt potentially illegal shipments from entering the United States. As a real-world example, during EPA review of HFC imports, there was a single import entry with six unique entities (referred to as parties), where at least three parties, based on their named roles in the entry, could expend allowances to cover the import under EPA's existing regulations. This situation can be particularly confusing and lead to uncertainty if multiple listed parties in an entry are allowance holders. Requiring that only the importer of record may expend allowances for a shipment addresses this difficulty because EPA will be able to advise CBP to hold or deny entry of merchandise where the importer of record is not an allowance holder or had not filed appropriate reports for the destruction, transformation, or transshipment of imported merchandise.

Making the regulatory change will help strengthen EPA's ability to track the importation of regulated substances and expenditure of allowances and support compliance assurance. The Agency is also concerned about instances where allowance holders may try to circumvent the requirements in 40 CFR 84.19, including but not limited to the requisite offset for inter-company transfers of allowances. EPA has received inquiries from entities seeking to facilitate imports on an allowance holder's behalf where the facilitating entity would be listed on all available CBP paperwork and appear in meaningful ways to be the "importer." In such instances, it would seem that the facilitating entity is truly importing regulated substances, and using a separate entity's allowances to do so. In such an instance, it seems more in line with existing EPA regulations and the AIM Act that either the allowance holder take on the role as the importer of record or for the allowance holder to transfer allowances to the facilitating entity.

EPA also proposed amending 40 CFR 84.5(b) to make it clear that a person who meets the definition of an importer

will be liable unless they can demonstrate that the importer of record possessed and expended the appropriate allowances. The Allocation Framework Rule at 40 CFR 84.3 defines "importer" broadly to include the importer of record and any person who imports a regulated substance into the United States, the person primarily liable for the payment of any duties on the merchandise or an authorized agent acting on his or her behalf, the consignee, the actual owner, and the transferee, if the right to draw merchandise in a bonded warehouse has been transferred. This would revise regulations established through the Allocation Framework Rule at 40 CFR 84.5(b)(2) that state that "[e]ach person meeting the definition of importer for a particular regulated substance import transaction is jointly and severally liable for a violation of paragraph (b)(1) of this section, unless they can demonstrate that another party who meets the definition of an importer met one of the exceptions set forth in paragraph (b)(1)." EPA received one supportive comment on this proposal noting that it would help EPA enforce the phasedown program. EPA received one adverse comment on this proposal from an entity that argued that entities that are not the importer of record would not have sufficient knowledge of the import transaction to ensure regulatory compliance and would not have the ability to force an importer of record to comply with EPA regulations. The commenter also argues that EPA's proposed amendment would not enhance compliance, but rather inject confusion into the process and have a potentially harsh result on "parties who have not done anything wrong and do not have the knowledge or control over the transaction to ensure compliance." The commenter also notes that EPA's proposal is untenable for customs brokers.

EPA notes at the outset that under EPA's proposed change, a customs broker would not be liable unless they fall under the regulatory definition of importer. If a customs broker is only acting as a broker, EPA understands that the broker would not fall under the regulatory definition of "importer" and therefore would not have any potential liability. If, for example, a customs broker also took on the role as a consignee, then the entity would fall under the regulatory definition of "importer" and could have potential liability if bulk HFCs were imported without expenditure of the requisite allowances. Moving beyond the specific point on customs brokers, adding

language in 40 CFR 84.5(b) tied with the regulatory definition of "importer" helps EPA maintain the integrity of the HFC Allocation Program by imposing broad liability on parties involved in importing HFCs. EPA disputes the commenter's contention that entities falling under the definition of "importer" are too far removed from the transactional process to have requisite knowledge to ensure allowances are appropriately expended. EPA also notes that parties could contractually allocate risk through their business relationships. While this may be an alteration of preexisting business practices, EPA believes that this is a worthwhile alteration because without this approach, EPA could be forced to pursue enforcement actions for illegal imports against insolvent entities or entities without assets in the United States. While the importer of record must be the entity possessing and expending allowances for imports of bulk regulated substances, making this regulatory amendment clarifies that if this requirement is not met, EPA has discretion to pursue enforcement action and/or administrative consequences on all entities that meet the definition of importer for violations of those requirements. Given these considerations, EPA is finalizing this amendment as proposed.

C. Existing Requirement To Expend Allowances for Regulated Substance Components of Blends

In addition to clarifying when an allowance must be expended and the entity permitted to expend allowances for import, EPA proposed to revise 40 CFR part 84.5(b)(1) to reflect and further clarify the existing requirement that allowances must be expended to import bulk regulated substances regardless of whether the import is of an HFC that is imported as a single component substance, *i.e.*, neat substance, or whether the HFC is part of a multicomponent substance, *i.e.*, a blend or mixture containing one or more regulated substances. EPA is finalizing this clarification as proposed.

EPA stated in the Allocation Framework Rule "allowances [are] necessary to produce or import [a] blend, or more precisely, the regulated HFC components contained in the blend" (86 FR 55142). Under the Agency's existing regulations, the requisite number of allowances to import a multicomponent substance in bulk is determined by the exchange values of the blend components that are regulated substances. As EPA explained in the Allocation Framework Rule, if a blend contains multiple regulated

substances, then the exchange values of each component are used to determine the number of necessary allowances (86 FR 55133–55134). If a blend contains components that are not regulated substances, then those components are not included in determining the number of necessary allowances. While the Allocation Framework Rule already made this requirement clear, we proposed to revise the regulations so that they more explicitly reflect the already existing requirement to expend allowances for import of bulk multicomponent substances equivalent to the EVE quantity of regulated substance components contained within the blend. This proposed change to the regulations would therefore further enhance clarity but would not change the scope of existing requirements.

One commenter asserted that EPA does not have the authority to require allowances for HFC blends. The commenter cited section 103(c)(3)(B)(i)²⁸ of the AIM Act, specifically “for the purposes of phasing down production or consumption of regulated substances” as reason for why the statute does not authorize EPA to require producers or importers of HFC blends to acquire or hold allowances. They continue that section 103(c)(3)(B)(ii) subsequently states that the prohibition on designating HFC blends “does not affect the authority of the Administrator to regulate under this Act a regulated substance within a blend of substances.” The commenter argues that the language is not itself a grant of regulatory authority, but rather clarifies that any other authority of EPA to regulate is not diminished by subsection (i), and that subsection (ii) does nothing more than preserve EPA’s ability to regulate HFC blends in ways that do not implicate “phasing down production or consumption.” The commenter asserts that 103(c)(3)(B)(ii) cannot permissibly be interpreted as a separate grant of authority to EPA to require allowances for HFC blends based on the chemical feedstocks that were used to produce those HFC blends before the products were imported into the United States, and that such a reading would allow EPA for all practical purposes to treat HFC blends as regulated substances, which is exactly what subsection (i) prohibits. Instead, the commenter suggests that if Congress had intended for EPA to require allowances for HFC blends, it

could have—and arguably would have—so stated in clear simple language. The commenter argues that Congress chose to specifically prohibit EPA in subsection (ii) from designating or regulating blends for phase-down purposes, while leaving intact EPA’s authority to regulate HFC components for purposes other than the HFC phasedown.

In further support of their views on this topic, the commenter asserts that HFC blends are chemical mixtures created by physically combining component HFCs into a new product that has unique physical chemical properties, including being an azeotropic mixture in which the gaseous components physically interact to create new behaviors. They note that HFC blends cannot be easily separated back into their component feedstocks without complex fractionation equipment, and for all practical purposes, an HFC blend is an entirely different substance than the chemical components from which it was manufactured, *i.e.*, the original HFC feedstocks that were used to manufacture the blend lose their individual identity and become part of a new substance.

EPA disagrees with the commenter’s characterizations and contentions. The arguments raised by this commenter were recently raised to, and rejected by, the D.C. Circuit in a challenge to the Allocation Framework Rule. *Heating, Air Conditioning & Refrigeration Distributors Int’l v. EPA*, No. 21–1251 (D.C. Cir. June 20, 2023) (“EPA has statutory authority to regulate HFCs within blends . . . because an HFC within a blend remains a regulated HFC under the Act.”). Importing a blend of chemicals that includes regulated substances requires expending allowances to account for the regulated substances within the blend. This requirement was first introduced in the Allocation Framework Rule and has been an integral requirement since the beginning of the HFC phasedown. As relevant here, the regulations finalized in the Allocation Framework Rule provide that “[n]o person may import bulk regulated substances” except by expending allowances “in a quantity equal to the exchange-value weighted equivalent of the regulated substances imported” (40 CFR 84.5(b)(1)). In the preamble to the Allocation Framework Rule, EPA explained that “allowances [are] necessary to produce or import [a] blend, or more precisely, the regulated HFC components contained in the blend” (86 FR 55142). In this final rule, EPA is revising 40 CFR part 84.5(b)(1) to further clarify the *existing* requirement that allowances must be

expended to import bulk regulated substances regardless of whether the import is of an HFC that is imported as a single component substance, *i.e.*, neat substance, or whether the HFC is part of a multicomponent substance, *i.e.*, a blend or mixture containing one or more regulated substances. As described in the Allocation Framework Rule, the necessary number of allowances to import a blend is determined by the exchange values of the blend components that are regulated substances, and that existing requirement is not changed by this rulemaking. Similarly, if a blend contains multiple regulated substances, then the exchange values of each component are used to determine the number of necessary allowances. Likewise, if a blend contains components that are not regulated substances, then those components are not included in determining the number of necessary allowances. The statute identifies in 42 U.S.C. 7675(c)(1) regulated substances by molecular formula, and chemicals with that molecular formula can be present in a blend even where there are other substances that are also part of the blend.

This approach, requiring allowances to import bulk substances containing regulated substances, whether the regulated substance is contained in a blend or is a single component substance, is based on a straightforward reading of the statute. The commenter challenges EPA’s approach based on the savings provision in 42 U.S.C. 7675(c)(3)(B)(i), but that provision has no relevance here. Subsection (c)(3)(B)(i) limits EPA’s authority to designate additional regulated substances, but EPA has not and is not designating any blend as a new regulated substance. Subsection (c)(3)(B)(ii) provides that subsection (c)(3)(B)(i) “does not affect the authority of [EPA] to regulate under this Act a regulated substance within a blend of substances.” 42 U.S.C. 7675(c)(3)(B)(ii). That provision confirms the congressional understanding that the default statutory framework allows for regulation of a regulated substance within a blend of substances, and EPA does not assert that (c)(3)(B)(ii) is a grant of authority. EPA’s approach here and in the Allocation Framework Rule is exactly what subsection (c)(3)(B)(ii) states is permissible. Importing a regulated substance requires expending allowances (see 42 U.S.C. 7675(e)(2)(A)(ii); 40 CFR 84.5(b)(1)). A person who imports a blend that contains regulated substances is,

²⁸ While EPA is duplicating the comment’s method of citing the AIM Act in summarizing the comment, we understand the comment to be referencing 42 U.S.C. 7675(c)(3)(B)(i)–(ii), which we primarily refer to as subsection (c)(3)(B)(i)–(ii) of the AIM Act.

necessarily, also importing the regulated substances within that blend, and, accordingly, must expend allowances for the regulated substances so imported.

Any contrary approach would significantly undermine the allowance program by creating a massive loophole. Under the approach that the commenter advocates, an importer could blend a regulated substance with something else—even another regulated substance—and would become exempt from the annual phasedown limits. Under the commenter's theory, even a minuscule amount of something else mixed into a regulated substance could immediately free the resulting mix from regulation under the allowance program. That would allow for circumvention of the allowance program and nullify the statutory phasedown of HFC consumption that Congress directed in the AIM Act. *See Cnty. Of Maui v. Haw. Wildlife Fund*, 140 S. Ct. 1462, 1473 (2020) (“We do not see how Congress could have intended to create such a large and obvious loophole in one of the key regulatory innovations of [the statute].”). A blend released to the environment would have a climatic effect based on its constituent substances as individual molecules, not based on the fact that it was blended. It would also put domestic producers at a disadvantage if foreign blends could be imported without being subject to limits under the allowance program. Many HFCs are imported as blends currently, and a transition to new blends with lower global warming potentials is an expected part of the industry's response to the phasedown of HFCs, including blends of HFCs and hydrofluoroolefins (HFOs). Under the approach taken in this rule, importing such blends will still require allowances for the regulated substance components, although fewer allowances than importing an unblended regulated substance or a blend that is entirely comprised of regulated substances. That is important because if the importation of blends were entirely free from the allowance program, then the allocation program would not necessarily result in a transition from higher to lower exchange value blends.

The commenter's approach would also create a mismatch in the allowance program. The statute directs EPA to establish the consumption baseline by considering “the average annual quantity of all regulated substances consumed in the United States” between 2011 and 2013 (see 42 U.S.C. 7675(e)(1)(C)(i)). Consistent with a straightforward reading of “all regulated substances consumed,” EPA included in

that quantity all regulated substances contained within imports of HFC blends. Specifically, EPA relied largely on data about historic HFC production and consumption that had been reported to EPA through the GHGRP under 40 CFR part 98, subpart OO (see 86 FR 27164 which describes data available through GHGRP). Imports of HFCs within blends were required to be reported under that program (see 40 CFR 98.416(c)(1) (reporting requirement for bulk imports of fluorinated GHGs); see also 86 FR 9059, 9063, February 11, 2021) (“Under the [GHGRP], each importer and exporter of [HFCs] must submit an annual report that includes total mass in metric tons of each [HFC] imported and exported, including each [HFC] in a product that makes up more than 0.5 percent of the product by mass.”). Also, when allocating allowances, EPA assigned consumption allowances to companies by relying largely on historical data reported to the GHGRP, which included historical imports of HFCs within blends. Given that regulated substances within blends were part of the baseline calculation and that historic imports of regulated substances within blends are considered in the allocation of allowances, there is no unfairness in requiring the expenditure of allowances for future imports of regulated substances within blends. On the contrary, if allowances are not required for the regulated substance components of a blend, then the allowance program will not operate as intended. That would mean that the number of available allowances is higher than otherwise due to historical imports of regulated substances within blends but that allowances need not be spent for future such imports. Such a mismatch would undermine the Congress's statutory phasedown scheme.

EPA disagrees with the commenter's contention that an HFC blend is an entirely different substance than if the chemical components were still in their single substance state. The Agency notes at the outset that the commenter's use of terms like “feedstocks” and “manufacturing”²⁹ diverges from the Agency's use of those terms. Creating a blend is a completely different process from producing HFCs in the first instance, in which feedstock chemicals are entirely consumed as part of a production process. As described in the materials provided by the commenter,

²⁹ For example, the commenter claims that “[t]he original HFCs feedstocks that were used to manufacture the blend lose their individual identity and become part of a new substance” (emphasis added).

the blending process may create an azeotropic mixture among the constituent single component HFCs that functions in some ways like a single substance (e.g., the entire mixture has the same boiling point). The Agency notes that an azeotropic mixture exists in a vapor-liquid equilibrium based on interactions among the constituents, but the individual components are not transformed and no new substance is produced. Regulated substances do not lose their identity when they become part of a blend. As explained initially in the response to comments to the Allocation Framework Rule, available in the docket for that action, the components in a blend (and the amount of each component) can be identified after blending and separated through technology such as fractionation and distillation. (see “Response to Comments”, pg 193, Docket ID No. EPA-HQ-OAR-2021-0044). De-constituting a blend, while it may involve reprocessing and upgrading recovered substances through mechanisms such as filtering and drying, *does not require individual constituents of the blend to undergo any chemically transformational changes*.³⁰ Because the creation of a blend does not create a new chemical, and the components are not chemically altered in the process, separating a blend simply results in unpackaging the individual components. Through blending, the components form a mixture, not a new compound, and no chemical bonds are formed or broken in the blending. Unlike the production of regulated substances, in which a feedstock chemical can be entirely consumed as part of the production process, HFC components remain in the blend and are discernable using technology such as refrigerant analyzers or gas chromatography. Creating a blend merely involves repackaging existing molecules of HFCs in various ratios. The commenter has not disputed these facts on the record aside from blanket, unsupported statements.

EPA is finalizing the proposed revision to 40 CFR part 84.5(b)(1) to more explicitly reflect the existing requirement to expend allowances for import of bulk multicomponent substances equivalent to the EVE quantity of components that are regulated substances and are contained within the blend. As an example, R-410A is a common refrigerant in air

³⁰ See, e.g., EPA's draft October 2022 report, “Analysis of the U.S. Hydrofluorocarbon Reclamation Market: Stakeholders, Drivers, and Practices,” available at <https://www.regulations.gov/document/EPA-HQ-OAR-2022-0606-0002>.

conditioning and heat pump applications and is composed of an equal mixture of HFC-32 (difluoromethane) and HFC-125 (pentafluoroethane). HFC-32 and HFC-125 are regulated substances with exchange values of 675 and 3,500, respectively. 100 kg of R-410A contains 50 kg each of HFC-32 and HFC-125. The exchange value of 100 kg of R-410A is the sum of the exchange value of the individual components, *i.e.*, 208,750 kg EVe (50 * 675 + 50 * 3500) or 208.75 MTEVe. An entity must expend 208.8 allowances to import 100 kg of R-410A.

While not a blend, the Agency also wishes to provide additional clarity on whether refrigerant that contains oil or lubricant would qualify as a bulk regulated substance. EPA's regulatory definition of "bulk" is codified in 40 CFR 84.3, and reads in part, ". . . A regulated substance that must first be transferred from a container to another container, vessel, or piece of equipment to realize its intended use is a bulk substance. A regulated substance contained in a manufactured product such as an appliance, an aerosol can, or a foam is not a bulk substance." Most regulated substances sold as refrigerants also contain a small amount of lubricant or oil. These lubricants are necessary for the correct functioning of the refrigerant in a air-condition, refrigeration, or heat pump system. The Agency is clarifying that regulated HFCs containing lubricants or oil are considered bulk regulated substances as the HFC must first be transferred a container to a piece of equipment in order to realize its intended use as a refrigerant. This is consistent with the preamble discussion on the same subject in the Allocation Framework Rule (86 FR 55129). Allowances are necessary for the production or import of these containers of regulated substances with oil or lubricant.

D. Consideration of Presumed Amount for Heel Imports of Unknown Quantity

As established under 40 CFR 84.5(b)(1)(i), any import of bulk regulated substances in any quantity, including heels, requires the expenditure of allowances equal to the exchange-value weighted equivalent of the regulated substances imported. EPA made clear in the Allocation Framework Rule that the Agency was "requiring imports of heels to involve allowance expenditure" because "EPA sees no statutory basis to exempt imports of heels from the requirement to expend allowances." (86 FR 55183). A heel is "the amount of a regulated substance that remains in a container after the container is discharged or offloaded

(that is no more than 10 percent of the volume of the container)" (40 CFR 84.3).³¹ Some entities have expressed concern that there may be situations where an entity does not know the precise weight of the heel imported until the container arrives at the entity's U.S. facility. Because the heel is the residual remainder left in a container, entities should know the type of regulated substance of which the heel is composed, so EPA understands this concern to be that an entity may not know the precise volume or weight of regulated substance remaining. An entity needs to know the volume or weight of the heel to calculate the number of allowances necessary to expend for the import of that heel.

To address this potential concern, EPA proposed to establish a standard presumption of an HFC heel content of 10 percent of the total potential volume of that container in EVe terms, if the heel weight has not been measured or documented prior to import. Under the proposed approach, the entity would also have utilized the 10 percent presumption for the advance notification requirement of 40 CFR 84.31(c)(7). Given the possibility that an importer could have used this provision to underreport how much HFC they are importing (*e.g.*, claiming a heel when the container holds more HFC than 10 percent of the volume of the container), EPA stated that it could presume the container is full unless the importer demonstrates otherwise, such as with records documenting the actual weight. The Agency also requested comment on whether a provision like this was needed or if importers had resolved the early concerns with determining the heel weight prior to import.

As an alternative, EPA also noted in the proposal that it was considering an option of allowing the importer of record to submit a provisional estimate of the quantity of heel imported, but requiring within a two-week period that the provisional estimate be corrected to match the exact amount of the imported HFC heel content. EPA invited comment on how this alternative option could align with the proposal to codify the point in time that an allowance must be expended to import regulated substances. The Agency noted that it was unsure how and when allowances would be expended under this

provisional estimate model, and if allowances are expended based on the provisional estimate, how expended allowances would be reconciled with the corrected exact amount of imported heel. EPA also stated it had concerns of what the enforcement implications of this approach would be and sought comment on whether such an approach would create avenues for an entity to illegally import that are not currently present under EPA's existing regulations.

In response to EPA's request for comment on whether a provision like this was needed, one commenter stated that large containers such as isotanks, tank trailers or rail cars typically have measured weights and that it expected smaller ton tanks and cylinders (*e.g.*, 30 pound cylinders typically used for servicing) would be more likely to use such a provision. However, the commenter did not specify or document why this would be the case. The commenter did not provide justification, aside from unsupported assertions, of why practical considerations of weighing heels in small tanks and cylinders would be different from larger containers. Even if certain current business practice does not include the routine weighing of smaller ton tanks and cylinders prior to imports of heels to the United States, EPA is unaware of, and the commenter did not explain, why these business practices could not be changed to ensure that such imports are weighed. As a result, EPA does not agree that the Agency needs to make revisions to our existing provisions to address the issue at this time.

Commenters did not think the proposed 10 percent standard presumption was appropriate and recommended a lower number. They asserted that 10 percent is higher than the typical heel content. Some commenters supported the proposal to establish a standard presumption under different conditions. One commenter recommended a 5 percent presumed heel volume and other commenters suggested in a general way a significantly lower presumption. EPA acknowledges commenters' opposition to a 10 percent presumption and support for a standard presumption under different conditions; however, the Agency is not finalizing a standard presumption in any case, regardless of the quantity being imported. EPA proposed the standard presumption at the 10 percent level as an inherently conservative estimate of what quantity would be a heel in a container, but commenters note that this presumption may be too high for some imports of heels. Using this presumption could

³¹ EPA views this as an amount that is no more than 10 percent by weight of the amount of that same substance that is typically sold in a "full" container of that size. For example, if a "full" cylinder of HFC-134a typically contains 25 pounds of HFC-134a, then 2.5 pounds or less of HFC-134a remaining in the cylinder would be considered a heel.

result in importers expending more allowances than were needed for the import if the actual heel volume was below the standard presumption. While any presumption is open to abuse, lowering the presumption makes it more likely that fewer allowances are expended than would normally be required if the heel amount was actually higher. This would be especially true if EPA does not revise the definition of heel to lower the percentage from 10 percent. For example, if a heel can be up to 10 percent by volume, but the standard presumption for imports is five percent, an importer could underreport by up to five percent of the volume and not violate EPA's regulations. Such an approach would be contrary to corresponding prohibitions in subsection (e)(2)(A)(ii) of the AIM Act and 40 CFR 84.5(b)(1)(i). The Agency noted concern for the potential to circumvent expending the necessary allowances if the Agency were to adopt a lower standard presumption. Commenters did not provide information which would alleviate EPA's expressed concerns that importers could use this provision to underreport the amount of HFCs they are importing and not expend the correct corresponding number of allowances. As a result, EPA is not finalizing any changes and is not establishing a standard presumption or a change to the definition of "heel."

Several commenters supported EPA's alternative approach contemplating consideration of allowing a provisional period to measure, report, and expend allowances for heels that are not measured prior to import. However, the commenters stated that a two-week provisional period to report the measured weight was too brief due to geographic and logistical concerns. The commenters suggested instead a three-week provisional period. One commenter stated without supporting information that the smaller shipments most likely to use such a provision would need the additional time to reach their destination and be weighed. Commenters who supported a provisional period suggested that entities could submit corrected weight information to EPA electronically. EPA acknowledges commenters' interest in the idea that EPA introduced at proposal regarding a provisional period, but the Agency remains uncertain how this proposal would align with the requirement which we are finalizing in section V.A of this preamble which specifies the point in time that an allowance must be expended for an import. Even if EPA were not codifying

a requirement that allowances must be expended at a specific point in time, existing requirements under 40 CFR 84.5(b)(1)(i) prohibit any import of bulk regulated substances in any quantity, including heels, without expending allowances equal to the exchange-value weighted equivalent of the regulated substances imported. It is also unclear to the Agency how the electronic notification and recorded transactional data would be validated for shipments which have already been imported and received. Commenters did not provide information that reconciled these concerns.

Several commenters supported combining a standard presumption with a provisional estimate. One commenter stated that a 10 percent presumption could apply if the provisional value were not corrected and two commenters suggested standard presumptions lower than the 10 percent level. EPA maintains the same concerns as described above in this section regarding a lower standard presumption and provisional estimate. As noted, there is the potential that a standard presumption lower than 10 percent could result in insufficient expenditure of allowances when compared to the exchange-value weighted equivalent of the regulated substances imported. EPA also maintains concerns with the provisional estimate regarding how and when allowances would be expended and how expended allowances would be reconciled with the reported amount of imported heel. This would have implementation and enforcement challenges and is open to abuse, especially given the final weight would be measured after the import has occurred and at a private facility away from the port.

As noted in the Allocation Framework Rule (86 FR 55183), imports of heels require allowance expenditure, and heels in containers can be weighed to determine the mass of regulated substance and the requisite allowance expenditure. As discussed above in this section, EPA is unaware of why existing requirements may be impracticable and commenters did not resolve the Agency's concerns with the potential of underreporting or abuse of the proposed and recommended revisions to these requirements. In response to a request for comment, commenters did not provide information supporting the need for a revision to existing practices. As noted earlier in this section, commenters widely opposed the primary proposal's 10 percent presumption as higher than warranted and EPA disagrees that a lower standard presumption would be warranted. The

Agency remains uncertain of how a provisional period would interact with allowance expenditure requirements and commenters did not resolve EPA's expressed concerns in the Allocation Framework Rule and this rulemaking's proposal about the potential for abuse of associated provisions. Considering the adequacy of existing requirements, the adverse comments received to EPA's primary and alternative proposals, and the Agency's expressed concerns, EPA is not finalizing either the primary or alternative proposals, nor making any changes regarding the import of heels. In the absence of any changes, existing requirements under 40 CFR 84.5(b)(1) to expend allowances equal to the exchange-value weighted equivalent of the heels imported still apply. Furthermore, the requirement under 40 CFR 84.31(c)(7) to include the quantity (in kilograms) in the advance notification of import requirement still applies, and section XI.A.2 of this preamble establishes additional requirements to specify net weight (or net product weight) and gross weight (net weight plus container weight), as well as unit of mass (*i.e.*, kilogram), for each container in the shipment in the pre-import notification.

EPA reiterates that it did not propose and is not finalizing any changes to the export requirements for heels, so exporters are required to know the precise quantity of HFCs in a heel for an export, just as importers are required to know the precise quantity of HFCs in a heel that is being imported. EPA was clear in the proposed rulemaking that its proposals on the topics of heels would only apply to imports of HFCs and that EPA was not proposing to change the requirement to know the quantity of HFCs in a heel for an export. Further, anyone requesting an additional consumption allowance under 40 CFR 84.17 and anyone exporting HFC heels must continue to report the actual weight of a heel that is exported.

VI. How is EPA clarifying and revising recordkeeping and reporting requirements?

EPA established recordkeeping and reporting requirements in the Allocation Framework Rule, in accordance with subsection (d) of the AIM Act. These requirements can be found in 40 CFR 84.31. The Agency proposed to make amendments to certain recordkeeping and reporting requirements as well as proposing new recordkeeping and reporting requirements based on experience gained in implementing the HFC phasedown. EPA is finalizing some of these proposals.

A. How is EPA modifying the import reporting requirements?

In the Allocation Framework Rule, EPA established reporting requirements for importers at 40 CFR 84.31(c). In this action the Agency is finalizing amendments which include specifying reporting obligations that fall to the importer of record, modifying elements of the advance notification requirement, and clarifying how to consider import of heels. EPA is finalizing all these amendments to provide additional detail on requirements and further promote transparency and consistency in implementation and enforcement of the HFC Phasedown program.

1. Specify Reporting Obligations on the Importer of Record

To align with the proposal discussed in section V.B of this preamble that only the importer of record may expend allowances for the import of bulk regulated substances, EPA proposed to specify that certain reporting obligations fall to the importer of record. Specifically, EPA proposed that the importer of record, or their authorized agent,³² would be required to file the advance notification report pursuant to 40 CFR 84.31(c)(7), and the importer of record will be required to make quarterly reports pursuant to 40 CFR 84.31(c)(1). EPA received no adverse comments on this proposal and is finalizing the changes as proposed. EPA is making these amendments to improve clarity of who must fulfill certain reporting requirements with the Agency and also ease EPA implementation in aligning the reporting requirement with the entity obligated to expend allowances for the import.

2. Modify Advance Notification of Import Requirements

EPA's regulations contained in 40 CFR 84.31(c)(7) require "[a] person importing a regulated substance, or their agent," to report certain information "no later than 14 days before importation." The regulation enumerates several required elements that must be included in an advance notification of import filed through the CBP-authorized electronic data interchange system, such as the ABI. To align with the proposal that only the importer of record may

expend allowances for the import of bulk regulated substances, EPA proposed to specify that the advance notification reporting obligation falls to the importer of record, or their authorized agent.

One commenter alleged that EPA was in effect deeming brokers as importers of records with the associated responsibilities and liabilities. The commenter stated that a customs broker is not an importer of record and asked EPA to distinguish between the importer of record and their agents, in particular making clear that the importer of record is responsible for the accuracy of information provided.

EPA is finalizing the regulatory change as proposed to specify that the advance notification reporting obligation falls to the importer of record, or their authorized agent. This change in the regulatory text is intended to improve clarity of who must submit the advance notification reports and also ease EPA implementation in aligning the reporting requirement with the entity obligated to expend allowances for the import. However, in response to the comment received, EPA is making a minor adjustment to clarify the Agency's intent with this change to make clear that the obligation to file the advance notice falls to the importer of record. Due to existing business relationships, as outlined in footnote 31, if the importer of record so chooses, the advance notice may be filed by the importer of record's authorized agent. However, the authorized agent is not liable if the importer of record fails to meet this reporting requirement.

EPA proposed to add required elements pursuant to 40 CFR 84.31(c)(7). For all modes of transport, EPA proposed to require the container number(s) of the shipment (if applicable). EPA also proposed that for maritime shipments, the vessel name and the International Maritime Organization (IMO) number must be included as part of the advance notification. Some commenters stated that they were not in favor of EPA's proposal for reasons such as not being clear what the additional reporting elements would bring to EPA or arguing that the additional elements would be overly burdensome since shipment specific information was already required to be submitted to CBP. One commenter also noted that some information, such as the IMO number, may not be available to the importer at the time of the advance notification. After considering these comments, including consideration of the existing EPA and CBP reporting requirements and associated data points, EPA agrees

with commenters that the IMO number and vessel name are data elements that are largely duplicative of already available information. Accordingly, EPA is not finalizing that aspect of the proposal. However, EPA is finalizing the proposal to add the container number associated with the shipment (as applicable) as a required element for the advance reporting notification. Based on review of our existing data, EPA deems this information is useful for confirming imports that arrive in large tank containers with capacities in excess of 15,000 kg (often referred to as ISO (International Organization for Standardization) tanks), especially as EPA creates a future container tracking system. Having ISO tank container numbers included in advance reporting notifications will assist EPA in aligning the future container tracking system numbers with the ISO tank container numbers that are reported to CBP.

EPA's current regulations in 40 CFR 84.31(c)(7) require provision of the "quantity" (in kilograms) of each import in the advance notification of import. To improve clarity in the Agency regulations and provide for consistent treatment across regulated entities, EPA proposed to specifically require the provision of both the net weight (or net product weight) and gross weight (net weight plus container weight), as well as unit of mass (*i.e.*, kilogram), for each container in the shipment in the pre-import notification. Some commenters supported this proposal as a helpful clarification. A few commenters did not support the requirement to provide the gross weight in the pre-import notification; one argued the gross weight of the container does not serve a purpose when reporting or tracking HFC consumption. Some of these commenters were also opposed to providing the unit of mass, arguing that providing it would be duplicative and overly burdensome since there is shipment specific information required to be submitted to CBP prior to importation that includes this information. EPA is finalizing this requirement as proposed, specifically to require entities to include reporting of net and gross weight, as well as the unit of measure for each, in their advance notification report. EPA is finalizing inclusion of all three of these elements to resolve ambiguity and standardize reporting. Even if some of this information is submitted to Customs, net weight and unit of mass are needed for the Agency to confirm how many allowances will be required to expend for an upcoming import. Gross weight can be, among other things, a helpful

³² For purposes of providing advance notification of import through a system such as the ABI, the vast majority (if not all) notifications for the imports of regulated HFCs have been filed by customs brokers who are licensed and regulated by CBP to assist importers and exporters in meeting Federal requirements governing imports and exports. EPA included "authorized agents" as permissible reporting entities to accommodate this standard business practice.

indicator as to what type of container a bulk HFC shipment will arrive in and this information can be used to assist EPA and partner agencies in identifying at an earlier stage in the overall import process potentially violative shipments of bulk HFCs. This data is especially useful if the net and gross weights appear inconsistent for the specific HFC or HFC blend reportedly being imported. These disaggregated data elements can also be particularly important in situations where it may not be apparent from shipment documentation whether the reported weight value consisted of the net weight of the imported HFCs or the gross weight of the container. In other words, having both the net and gross weights also allows EPA to better confirm the accuracy of the reported data and ensure the accurate number of allowances is being expended.

Currently 40 CFR 84.31(c)(7) requires the submission of advance notification “no later than 14 days before importation” of any regulated substance. EPA made clear in footnote 97 of the preamble of the Allocation Framework Rule that “EPA is using the term ‘date of importation’ consistent with CBP’s definition at 19 CFR 101.1” (86 FR 55182). To ensure consistency EPA proposed to amend 40 CFR 84.31(c)(7) to clarify that our reference to “before importation” in the Allocation Framework Rule means “before the date of importation (consistent with the definition at 19 CFR 101.1).” EPA also proposed to clarify in 40 CFR 84.25(a)(1)(v) and 40 CFR 84.31(c)(3)(i)(D) that these references are consistent with the definition at 19 CFR 101.1. EPA did not receive adverse comment on these clarifying edits and is finalizing these revisions as proposed. The “Import Date” box on CBP Form 7501, “Entry Summary,” as well as CBP Form 214 for entries where importers are applying for foreign-trade zone admission and/or status designation may provide information about the date of importation, but it is the importer’s obligation to ensure that it has submitted its advance notification report in a timely manner regardless of the date identified in the Import Date box on these forms. The Agency notes that the requirement of advance notification prior to the date of importation does not preclude entities from following other established and required processes from CBP, including but not limited to the submission of CBP Form 3461 (Entry/Immediate Delivery for ACE). EPA also reiterates that all imports of bulk HFCs, regardless of value, must be filed in a manner that

allows for the required advance notification.

As noted earlier in this subsection, the regulations finalized in the Allocation Framework Rule require prior notification no later than 14 days in advance. EPA proposed to distinguish between modes of transport and to shorten the prior notification requirement for truck, rail, air, and other non-sea arrivals to 5 days prior to the date of importation. EPA also noted that the Agency was considering whether to shorten the prior notification for arrivals by sea to 10 days. Some commenters supported EPA’s proposal to shorten the prior notification requirement for truck, rail, air, and other non-sea arrivals to 5 days. Some commenters also supported EPA reducing the advance notification timeline for sea arrivals to 10 days, and one even argued for a shorter timeframe. No commenters opposed these shortened timeframes. EPA is finalizing both of these shortened times; advance notification reports will be due 5 days in advance for truck, rail, air, and other non-sea arrivals and will be due 10 days in advance for sea arrivals. Importers bringing in goods via these transportation modes may not have the necessary information available at least 14 days in advance under current standard market practice. However, prior notification is important for EPA and CBP to be able to adequately review the shipment and relevant information. EPA based the 5-day prior notification in part on consultation with CBP about similar notification provisions used by other Federal government agencies and in part on information obtained through our stakeholder meetings that included customs brokers that have experience with importing a range of goods.

EPA also received other comments that did not directly relate to proposed provisions. One commenter requested that EPA explicitly allow that an importer can clear customs as soon as they receive a “may proceed” message regardless of whether the requisite timeline has passed from the advance notification requirement. In other words, if an importer of record files their advance notification, arrives at a land border two days later, and receives a “may proceed” from CBP, EPA understands the commenter to be requesting that bulk HFCs can be imported at that point as long as the requisite number of allowances are expended for the import. EPA is not making regulatory changes based on this comment. However, for purposes of furthering the public’s understanding, EPA also notes that it views the requirements around, and prohibitions on, the action of importing to be

separate from reporting requirements. If an entity receives a “may proceed” from CBP and expends the requisite allowances for a bulk HFC shipment, that importation action is permissible. However, if the action occurs before the requisite time period has passed following filing of the advance notification report, then the entity would have a reporting violation because they did not file the advance notification report sufficiently ahead of the importation activity.

One commenter requested that shipper/importer names and location “confidentiality be removed for Customs documents” filed for regulated substances to help industry monitor for compliance. EPA understands the commenter to be requesting that the Agency not treat certain elements of the advance notification report as CBI. In section IX.C of the Allocation Framework Rule, EPA outlined that certain data elements would not be entitled to confidential treatment (86 FR 55191–55195). Among other things, EPA finalized a determination to not provide confidential treatment to company-level, chemical-specific data on individual import and export shipments, including source country, port of entry, and the importer name and number. For further detail, The Classification of Data Reported Under the HFC Phasedown Rule memo in the docket for the Allocation Framework Rule documents the Agency’s determination of whether to provide or to not provide confidential treatment for each individual reported data elements (Docket ID No. EPA–HQ–OAR–2021–0044). EPA did not propose any changes to those determinations, is not revisiting those determinations in this rulemaking, and therefore is not making any alterations in this rulemaking. To the extent that commenter was requesting EPA to alter how CBP handles data, EPA does not have the ability to alter CBP’s approach on this issue and invites the commenter to raise any concerns with CBP, as appropriate.

One commenter stated that EPA should revise the term “Origin” in the HFC import advance-notice filing to “country(ies) of Manufacture for regulated substance(s)”. The Agency notes that under 40 CFR 84.31(c)(7)(xi) there is an existing requirement that “Origin Country” must be reported as part of the advance notification. EPA’s proposed changes to 40 CFR 84.31(c)(7) did not explicitly include modifications to the existing requirement to report “origin country” under 84.31(c)(7). EPA is not finalizing any change to that particular data element, but does not believe any change is needed in

response to commenter's concern because EPA interprets this term consistent with CBP's "Country of Origin" definition, which is "the country of manufacture, production, or growth of any article of foreign origin entering the United States."³³

3. Clarify the Reporting of Heels

EPA clarified in its proposal that the HTS Code for a regulated substance, regardless of whether or not comprising a heel, must be used, and not the HTS codes for U.S. goods returned or empty containers. EPA did not make a specific proposal related to this clarification, but rather included this statement in the proposal for this rulemaking to communicate the Agency's expectation clearly to stakeholders and the regulated community. One commenter did note its support for this position and noted its opposition to loopholes that mask illegal trade including the use of HTS code use for U.S. goods returned or empty containers containing illegal refrigerant.

One commenter expressed the opinion that heels do not warrant additional scrutiny because associated losses are negligible and the fact that heels comprise valuable product incentivizes maximum recovery. EPA disagrees with the commenter's characterization that EPA's concern and discussion on heels is unwarranted or that EPA's clarification in the preamble would apply additional scrutiny to heels. Rather, the Agency's clarification explained that consistent requirements for the HTS Code apply to all imports of bulk HFCs, whether those imports comprise heels or more filled containers. In this particular section, the Agency is reiterating that the HTS Code for the regulated substance must be used for the import of any regulated substance. Reporting all volumes of regulated substances with the applicable HTS Code for the contained HFCs regardless of value facilitates accurate treatment of the imports of these regulated substances under EPA regulations.

4. Changes to and Requirement of Importer of Record Information

EPA proposed to require the submission of certain information directly to EPA that had been voluntarily provided, in part, through the importer of record form (EPA Form #5900-556). EPA proposed a regulatory requirement that certain information must be submitted by any entity

anticipating being the importer of record for a shipment of regulated substances by November 15 of the prior calendar year. In other words, an entity that anticipates being the importer of record for a shipment of HFCs during calendar year 2024 must submit the required information by November 15, 2023. If an entity is not issued allowances directly from EPA, is the recipient of transferred or conferred allowances and it is impracticable for the entity to submit the importer of record form by November 15, EPA proposed that the importer of record form be submitted within 15 calendar days of receiving the Agency's non-objection notice for conferral or inter-company transfer. EPA also proposed that if changes are necessary on the importer of record form after its initial submission that those changes be made at least 21 calendar days prior to any import of bulk regulated substances for which the concerned entity will be the importer of record after the change in information occurs.

EPA proposed that if an entity receiving allowances (either allocated directly by EPA or through a conferral or transfer) includes subsidiaries, entities majority owned and/or controlled by the same individual(s), and/or "Doing Business As" (DBAs) as part of its form, the corporate structure of the entity receiving allowances must also be provided, and the description of the corporate structure must, at a minimum, explicitly show the relationship between the allowance holder and each subsidiary, entity that is majority owned and/or controlled by the same individual(s), and/or DBA. An entity also would need to provide the owners, and their respective percentage of ownership, of each subsidiary, entity that is majority owned and/or controlled by the same individual(s), and DBA on the submitted form. EPA received no comments on these proposals and is finalizing them as outlined in the proposal for this rulemaking. As explained in the Allocation Framework Rule and reiterated in section VIII.C of this preamble, movement of allowances between a parent company and its subsidiaries, or among companies that are commonly owned, may occur without a transfer (86 FR 55145). However, there may be instances where these corporate relationships are not immediately clear to EPA. The importer of record form provides information on corporate relationships to EPA, and accounting for such instances would ensure not only that allowances are being expended by the right entity, but also that reviews of shipments are not

unnecessarily delayed. In a similar manner, entities receiving allowances may operate under different names, *e.g.*, DBA, where it is not immediately clear to the Agency that the DBA is associated with the allowance holder. To further efficient and accurate review of imports by EPA, the Agency reminds regulated entities of the importance of ensuring that when an allowance holder or associated subsidiary, entity that is majority owned and/or controlled by the same individual(s), and/or DBA provides advance notification of import filed through a CBP-authorized electronic data interchange system, such as the ABI, that the importer of record number accurately aligns with the name of the importer.

EPA further proposed that an entity would need to indicate on the required Importer of Record form how many allowances will be expended by each other affiliated entity (*e.g.*, subsidiaries, majority owned and/or controlled), specifically a quantity of allowance that will be expended by each affiliated entity identified by name and importer of record number(s). EPA noted that it was considering, as an alternative, requiring information as part of the advance notification requirement of 40 CFR 84.31(c)(7) that would specify which entity was allocated the allowances or received the allowances through a transfer that are associated with an individual shipment. EPA did not receive comment on either of these proposals and is not finalizing these requirements at this time. After consideration of other requirements being finalized in this rulemaking, the Agency has determined that these additional data points are not needed given the finalization of requiring the importer of record form.

One commenter recommended that the "Importer of Record" should reflect the name of the allowance holder on HFC import advance-notice filings, customs documents, and quarterly reporting of imports. Another commenter recommended EPA require that all advance notification of import and associated CBP documents specifically list the name of the Allowance Holder as it appears on EPA's allowance allocations as the "importer of record." The commenter further requested that if a sub-entity is involved in the shipment, that name should also be listed along with the name of the Allowance Holder. The commenter believes that requiring this additional information would facilitate tracking of compliance for each participant's consumption allowances. As outlined in section V.B. of this preamble, EPA is finalizing in this

³³ <https://www.cbp.gov/trade/rulings/informed-compliance-publications/markings-country-origin-us-imports>.

rulemaking a requirement that only an importer of record can expend allowances to import bulk regulated substances. Put another way, an allowance holder must be listed as the importer of record on a shipment to expend allowances for that shipment. Finalizing this requirement largely addresses the issue noted by the commenter. In addition, in this section EPA outlines how it is finalizing requirements related to information on importers of record. Specifically, EPA is amending its regulations to require submission of an importer of record form that includes the names of all subsidiaries, entities majority owned and/or controlled by the same individual(s), all DBAs, and any corresponding importer of record numbers, even if the importer of record number(s) is identical for the subsidiaries, entities majority owned and/or controlled by the same individual(s), and/or DBAs as it is for the allowance holder. This change ensures EPA has the relevant information necessary to determine the importer of record has sufficient allowances to import regulated substances.

5. Joint and Several Liability for Importer Reporting Requirements

In section VI.A.1 of this preamble EPA is finalizing its proposal to specify that the importer of record is responsible for advance notification reporting obligation of 40 CFR 84.31(c)(7)³⁴ and quarterly reporting requirements of 40 CFR 84.31(c)(1). EPA noted in its proposal that such changes to the reporting requirements could have an adverse impact on compliance with and/or EPA's ability to enforce reporting obligations. Accordingly, EPA proposed to apply joint and several liability for violations of the quarterly reporting and the advance notification reporting requirements. Specifically, EPA proposed in 40 CFR 84.31(c)(10) that each person meeting the definition of an importer is jointly and severally liable for a violation of the quarterly reporting requirements at 40 CFR 84.31(c)(1) unless they can demonstrate that the importer of record fulfilled the quarterly reporting requirements, and in 40 CFR 84.31(c)(11), EPA proposed that each person meeting the definition of an importer is jointly and severally liable for a violation of the advance notification requirements at 40 CFR 84.31(c)(7) unless they can demonstrate that the importer of record or their

authorized agent fulfilled the advance notification requirements.

EPA did not receive any comments germane to this particular proposal. EPA flagged some potential downsides to this proposal and requested comment on potential reporting difficulties that could be associated with extending joint and several liability for these reporting requirements and on the potential burden or downsides associated with the proposed joint and several liability. Joint and several liability would require individuals involved in the import of HFCs to coordinate to ensure reporting is complete and accurate, so EPA also sought comment on whether additional resources and/or processes would be helpful to support this coordination and prevent duplicative reporting for the same import. Although the Agency did not receive responses to these comment solicitations, after further consideration EPA is not finalizing this proposal to apply joint and several liability for any reporting violations at this time. The importer of record is solely responsible for the advance notification reporting obligation of 40 CFR 84.31(c)(7)³⁵ and quarterly reporting requirements of 40 CFR 84.31(c)(1). If EPA experiences challenges with enforcement and compliance following finalization of specifying reports must be filed by the importer of record, EPA may revisit this issue in a future rule.

The importer of a regulated substance in 40 CFR 84.31(c)(2) must maintain certain records to document each import. EPA sought comment on whether more specificity is needed than "importer," for example to define that recordkeeping obligations would fall specifically on the importer of record, and took comment on the effectiveness, accuracy, and completeness of the importer bearing responsibility for the recordkeeping in this section. EPA received no comment on this issue, so is not finalizing any adjustment to 40 CFR 84.31(c)(2) at this time.

B. Consideration of Modifying Recordkeeping and Reporting Requirements Regarding Expending Allowances

In the Allocation Framework Rule, EPA codified various recordkeeping and reporting requirements for producers and importers of HFCs in, respectively, 40 CFR 84.31(b) and 40 CFR 84.31(c). In this rulemaking, EPA proposed to add an obligation that producers and importers must maintain same day documentation of any allowances expended, include that record as part of

the required quarterly report, and certify to EPA as part of their quarterly reporting that they expended the requisite number of allowances on the dates specified in the form for each date-specific production or import transaction.

Commenters widely opposed the proposed requirements for same day documentation as both overly burdensome and insufficiently justified, and stated that existing recordkeeping and reporting requirements adequately provide the information necessary for EPA to carry out associated inspection and monitoring of allowance expenditures. One commenter stated that EPA's "allocation tracking digital system" as established in 40 CFR 84.23 that will begin January 1, 2025, would provide the necessary information. Another commenter stated that an enforceable recordkeeping and certification requirement, in addition to being burdensome, creates an unnecessary enforcement risk in the case of a minor and unintentional error without an associated benefit as compared to existing requirements. One commenter suggested that EPA should require recordkeeping over different time period as opposed to daily.

EPA notes that existing provisions in 40 CFR 84.31(b)(3) and 40 CFR 84.31(c)(2) already require dated records of the information used to determine allowance expenditure. After considering comments received concerning burdens associated with the proposed requirements and the adequacy of existing requirements, EPA is not finalizing these proposals concerning same day documentation of any allowances expended. EPA notes that without any changes, the existing regulations in 40 CFR 84.31(b)(3)(i) already require producers to keep dated records of the quantity of each regulated substance produced at each facility, and under 40 CFR 84.31(c)(2)(v) importers must keep records of the date on which regulated substances were imported, along with a copy of the bill of lading for the import. Additionally, apart and separate from this rule, EPA has inspection and information gathering authorities under section 114 of the CAA, 42 U.S.C. section 7414, and the regulations promulgated at 40 CFR part 84.

C. Modify the Reporting of Regulated Substances Produced for Transformation, Destruction or Use as a Process Agent at a Different Facility Under the Same Owner

As noted in this rulemaking's proposal, under 40 CFR 84.31(b)(2)(i)–(iii) EPA required that each producer of

³⁴ This reporting obligation may permissibly be filed by an importer of record's authorized agent.

³⁵ This reporting obligation may permissibly be filed by an importer of record's authorized agent.

a regulated substance include in the quarterly report for each facility information on the quantity of each regulated substance produced for use by the producer or a second party in processes resulting in their transformation, destruction, or use as a process agent. There are situations, however, where regulated substances are produced at one facility, but transformed, destroyed, or used as a process agent at another facility owned by the same entity. Such situations are distinct from regulated substances transformed, destroyed, or used at the same facility where the regulated substances were produced and those transformed, destroyed, or used by an entity different from the one that produced the regulated substances. EPA proposed that 40 CFR 84.31(b)(2)(i)–(iii) be modified to include requirements to report the name, quantity, and recipient facility for regulated substances produced at one facility for, correspondingly, transformation, destruction, or use as a process agent at another facility owned by the same entity. One commenter expressed its general support for the proposal, and another commenter noted that this reporting would provide greater transparency. EPA did not receive adverse comments on this proposal.

EPA is finalizing these proposed modifications to the reporting of regulated substances produced for transformation, destruction or use as a process agent at a different facility under the same owner. Since EPA requires the names and quantities of transformed or destroyed regulated substances produced or imported by another entity to be reported at the facility level under 40 CFR 84.31(e)(1), these revisions to these sections will establish consistency within the regulations under 40 CFR part 84. Furthermore, these revisions will provide greater transparency within the system and better align with current AIM Act reporting forms and the GHGRP, both of which track transformation, destruction, and use as a process agent by facility. This facility-level reporting will increase transparency, such as for environmental justice concerns, so that local communities have better insight into how regulated substances may move between facilities owned by a single entity. Such information will also provide EPA a better understanding of industry practice, help verify disposition of regulated substances, and may inform future rulemakings.

D. Considered Additional HFC Production Facility Emissions Reporting Requirements

EPA stated its intention in the Allocation Framework Rule to “continue to monitor the impacts of [the HFC phasedown] program on HFC and substitute production, and emissions in neighboring communities, as we move forward to implement this rule” (86 FR 55129). As noted, previously, there is significant uncertainty about how the phasedown of HFC production and the issuance of allowances by themselves, as well as the interactions with market trends independent of this rulemaking, could affect production of HFCs and HFC substitutes—and associated emissions—at individual facilities, particularly in communities that are disproportionately burdened by air pollution. EPA continues to be concerned about the potential for environmental justice concerns due to the release of toxic chemicals that are feedstocks, catalysts, or byproducts in the production of HFCs or HFC substitutes.

To help inform EPA’s ability to track emission changes over time, EPA proposed to build on the one-time reporting requirement and require annual reporting of HAP, ODS, and HFC emissions from each facility’s HFC production line emissions units (86 FR 55129). In the proposal, the Agency explained that the reporting requirements could provide data on the impacts of HFC production and inform policies, regulations, and other decisions, including to carry out EPA’s commitment to environmental justice. In the proposal, EPA stated that it was considering a range of options to apply to determine the emissions required to be reported under this proposed approach, including continuous emissions monitoring systems, stack testing, material balance, EPA emission factors, or the compliance method required under the most recent permit issued to the facility pursuant to 40 CFR part 70 or 40 CFR part 71, under the facility’s operating permit for sources without a permit under 40 CFR part 70 or 40 CFR part 71, or using federally recognized procedures if emissions cannot be determined using the compliance methods from the facility’s air permit. EPA also sought comment on whether fence-line monitoring would be appropriate. Further, EPA sought comment on the advantages and disadvantages of this approach, what metrics should be reported, and how EPA could use this data to better understand the role that HFC production plays in emissions of HAP,

HFCs, and ODS. Specifically, EPA sought comment on which singular option for determining emissions, as listed above, would allow for effective monitoring of these emissions. EPA also requested comment on methods of emissions estimation or monitoring currently in practice and whether those methods are appropriate for monitoring emissions at HFC production facilities. EPA also requested comment on whether it would be appropriate or feasible to require each facility producing an HFC to report on an annual basis the quantity of each criteria air pollutant, and its precursors, for which EPA has established a National Ambient Air Quality Standard, emitted by the facility and the quantity of each such pollutant emitted annually from each HFC production line on an emission unit basis. EPA also took comment on whether the data listed in the proposal for additional reporting are already required under different authorities.

A few commenters were supportive of the proposal to require annual reporting from HFC production facilities’ emissions units and requested that EPA extend the requirement to reporting on emissions from the production of HFOs and other HFC substitutes, as well as criteria pollutants and precursors. The commenters shared publicly available facility-level emissions data from HFC production facilities and agreed that requiring unit-specific emissions data would assist efforts to meaningfully conduct analyses and address potential concerns. The commenters further stated that emissions from production of HFC substitutes, whether collocated with HFC production facilities or located separately, are also important considerations when evaluating overall emissions and community risks. The same commenters generally supported the requirement for facilities to use the continuous emission monitoring systems approach for estimating these emissions. One commenter noted that CAA section 114(a) provides ample authority for proposed unit-specific requirements, and for expanding those requirements. EPA acknowledges commenter’s supportive comments and requests to broaden the requirements proposed, but also notes that the commenters did not substantively address EPA’s questions outlined in the proposal about whether such requirements would allow EPA to effectively monitor HFC production-related emissions at these facilities and how they might be finalized in this action. Other commenters opposed EPA’s proposal regarding these annual

reports. Commenters stated that the costs associated with the proposed monitoring and reporting requirements were too great compared with the benefits, the proposed monitoring and reporting requirements were duplicative, or that current monitoring and reporting requirements were sufficient. Many of these comments also expressed concerns that if the reporting requirement proposal were implemented, it would disproportionately impact U.S. producers over foreign counterparts. One of these commenters stated that EPA did not provide documentation to support the Agency's claim of examining other sources of data, such as the National Emissions Inventory and the Toxics Release Inventory (TRI). The commenter also stated that the proposed reporting requirements do not appear to be contained in EPA's Information Collection Request (ICR) Supporting Statement, and that it was not apparent that EPA has described its authority to collect such data, indicated the utility/users of the data, addressed non-duplication, consulted adequately with stakeholders, or examined the effects of less frequent collection.

The Agency did not receive comments that were explicitly in favor of fenceline monitoring requirements, but several commenters opposed EPA's consideration of fenceline monitoring. One comment specific to fenceline monitoring stated that fenceline monitoring would not be meaningful for assessing environmental justice for certain facilities, due to the surrounding area being rural and majority White. Commenters also described challenges associated with fenceline monitoring, such as the difficulty in separating facility emissions from other sources in the area. Comments also stated that EPA had not provided sufficient notice of proposed monitoring requirements.

The Agency also received numerous comments contending that EPA does not have sufficient legal authority to implement emissions monitoring and reporting requirements proposed. One commenter stated that CAA sections 112(d) and (f) are more appropriate programs to regulate HAP emissions from HFC or HFO production facilities, specifically National Emission Standards for Hazardous Air Pollutants requirements under 40 CFR part 63, subparts F, G, H, and I. Many commenters who opposed the reporting requirements generally stated that these proposed reporting requirements fell outside EPA's authorities under the AIM Act and CAA, and in particular, EPA did not have the authority to require reporting on emissions other than HFCs.

Another commenter stated that EPA's reasoning for collecting more emissions data is inconsistent with proposed obligations. They further explained that EPA is interested in identifying disparate impacts from the phasedown, but the proposal to gather emissions data would only gather information from U.S. producers of HFCs; thus, HFC emissions would decrease while emissions from HFC substitutes would increase, and the consideration of the impacts from production of HFC substitutes is missing from the proposal.

At this time, EPA is not finalizing the proposal to require reporting on annual emissions of HAP, ODS, and HFC emissions from each facility's HFC production line emissions units or require fenceline monitoring. The decision to not finalize the proposed requirements was made in part because of the Agency's evaluation of the comments we received and the determination by the Agency that additional analyses by EPA are necessary to consider other reporting requirements. Some of the areas that EPA would like to consider more thoroughly include technical aspects of emissions reporting and monitoring and associated costs and benefits. As noted at proposal, the Agency is aware that emissions data reporting is required for some larger facilities, and can be obtained, at the facility- or process-level, through the National Emissions Inventory (NEI), TRI, and Title V permits. EPA has analyzed some of this data and provided it in Chapter 6 of the RIA Addendum accompanying this final rule. Further, EPA has updated the final RIA Addendum based on information received in the one-time producer reports submitted in 2022. The Agency will continue to assess emissions data already reported by HFC production facilities under existing requirements and what data, or level of data quality, would still be meaningful to assess any emissions trends related to HFC production or changes in production based on the phasedown. If additional data is needed, EPA will consider the best mechanism, including a targeted CAA section 114 information collection request for additional data from production facilities, and authority for collecting emissions data. The Agency may also consider the costs of various emissions monitoring systems and the resulting data quality; current industry practices, operations, and controls; the link between production of HFCs and emissions, including where a facility may switch which HFC is produced; and the relationship between the production of HFCs and HFC

substitutes. This type of information may allow EPA to better identify if there are data gaps and determine how best to address any gaps. Because the Agency is not finalizing this proposal at this time, EPA is not responding to the comments in this action, but we anticipate further considering the comments before taking any potential future action.

VII. How is EPA revising sampling and testing requirements?

In the Allocation Framework Rule codified at 40 CFR 84.5(i), EPA established the requirement to label containers containing a regulated substance that are sold or distributed, or offered for sale or distribution, and for certain entities to confirm the accuracy of the labels by testing a representative sample of contents to verify that the composition matches the container label. In that section of the regulation, the Agency also codified a prohibition on the sale or distribution of regulated substances for use as a refrigerant that did not meet specifications in appendix A to 40 CFR part 82, subpart F. In this rulemaking EPA proposed to establish additional verification requirements and codify procedures to test a representative sample.

Specific testing requirements create a consistent approach that smooths implementation and provides greater assurance on the accuracy of these container labels. Representative sampling provides a means to verify that a collected sample represents all components of the tested regulated substance and uses this smaller sample to infer that the composition of regulated substances within a wider population of cylinders matches the composition of the collected sample. The requirement to undertake sampling and testing, and defining specific methodology and requirements for sampling and testing, are important to provide clarity and direction to regulated entities, ensure that individual labels accurately reflect the contents of bulk regulated substances within containers, and reduce the frequency that mislabeled, misrepresented, or off-specification regulated substances enter commerce.

EPA proposed to (1) modify 40 CFR 84.5(i)(3)(i) to add that already required sampling and testing of regulated substances must follow a combination of appendix A to 40 CFR part 82, subpart F, and EPA Method 18 in Appendix A-6 to 40 CFR part 60 to verify the label composition for all applications; (2) add a requirement to sample and test under specified methodology to ensure compliance with the existing requirements concerning

specifications in 40 CFR 84.5(i)(3)(ii); (3) define the records required under 40 CFR 84.31 associated with testing and add recordkeeping requirements to 40 CFR 84.31³⁶ for fire suppressant recyclers and repackagers to ensure results from required testing are maintained; (4) add definitions at 40 CFR 84.3 of “batch” and “representative sample” and clarify the relationship between these terms; (5) add a definition at 40 CFR 84.3 for “laboratory testing” such that laboratories used by regulated entities to meet the existing requirement in 40 CFR 84.5(i) must be accredited and follow the test methods in appendix A to 40 CFR part 82, subpart F, and EPA Method 18 where appropriate; and (6) add a requirement that certificates of analysis accompany all imports of regulated substances.

EPA is finalizing these provisions with some modifications based on comments received on the proposed rulemaking.

A. Sampling and Testing Methodology Requirements

In the Allocation Framework Rule EPA established sampling and testing provisions in 40 CFR 84.5(i) that addressed verification of the contents of repackaged regulated substances that were initially unlabeled or mislabeled (40 CFR 84.5(i)(2)), compositions of regulated substances (40 CFR 84.5(i)(3)(i)), and specifications of regulated substances used as refrigerants (40 CFR 84.5(i)(3)(ii)).

i. Sampling and Testing

In appendix A to 40 CFR part 82, subpart F, EPA codified a modified version of AHRI 700–2016, Specifications for Refrigerants. AHRI 700 standards have been widely applied

to analyze HFCs in a variety of contexts. Appendix A to 40 CFR part 82, subpart F contains requirements and procedures of how to sample and test specified single component and multicomponent regulated substances used as refrigerants (as listed in section 2 of appendix A to 40 CFR part 82, subpart F). Section 5 of appendix A to 40 CFR part 82, subpart F contains applicable sampling and testing procedures. Sampling requirements describe how to obtain samples for analysis and how to conduct sample preparation for testing. Testing methods describe how to analyze samples and ensure adherence with composition and specification requirements. General testing requirements to ensure accuracy of the tests are included in section 5 of appendix A to 40 CFR part 82, subpart F. Specific measurements, such as the boiling point or critical point, are used to characterize the regulated substance. Characteristics and limits of allowable contaminants are listed for specific HFCs and HFC blends in section 6 of appendix A to 40 CFR part 82, subpart F.

EPA did not identify such sampling and testing methodologies particularly designed for or widely applicable to certain regulated substances used as non-refrigerants. In appendix A to 40 CFR part 82, subpart F, EPA incorporated by reference the 2008 Appendix C for Analytical Procedures for AHRI Standard 700–2014. Parts 7 and 9 of the 2008 Appendix C for Analytical Procedures for AHRI Standard 700–2014 contain sampling and testing methodologies that apply to a listed set of HFC refrigerants, including HFC–23, HFC–134, HFC–125, HFC–143a, HFC–41, HFC–152a, HFC–134a, HFC–143, HFC–245fa, HFC–32,

and HFC–152. These testing methods can also be applied to non-refrigerant uses of the same HFCs. HFC–365mfc, HFC–227ea, HFC–236cb, HFC–236ea, HFC–236fa, HFC–245ca, and HFC–43–10mee are not included among the list of HFCs that these testing methods apply to. Other approaches to test HFCs include EPA emission testing methods and ASTM standards. At proposal, EPA described that EPA Method 18 appears to be appropriate for the HFCs regulated under the AIM Act, including those not listed in the 2008 Appendix C for Analytical Procedures for AHRI Standard 700–2014, and would provide a well-established standard used in other EPA regulatory programs.

EPA codified requirements in 40 CFR 84.5(i)(3)(i) that sampling must be done consistent with appendix A to 40 CFR part 82, subpart F for regulated substances sold or distributed or offered for sale and distribution as refrigerants. EPA requires in 40 CFR 84.5(i)(3)(i) that entities verify that the composition of regulated substances matches the container labeling by testing a representative sample of contents, but EPA did not require that test methods for refrigerants be consistent with appendix A to 40 CFR part 82, subpart F, and the Agency did not specify the sampling or testing methods that must be used for regulated substances for non-refrigerant uses.

EPA proposed revising 40 CFR 84.5(i)(3)(i) to add requirements to use the testing methodology prescribed in appendix A to 40 CFR part 82, subpart F for regulated substances offered for sale and distribution as refrigerants and the following sampling and testing methods³⁷ for regulated substances offered for non-refrigerant uses:

TABLE 3—PROPOSED NON-REFRIGERANT REGULATED SUBSTANCE SAMPLING AND TESTING METHODS

Regulated substance	Sampling and testing method
HFC–23, HFC–134, HFC–125, HFC–143a, HFC–41, HFC–152a	Part 7 of 2008 Appendix C for Analytical Procedures for AHRI Standard 700–2014, incorporated by reference in appendix A to 40 CFR part 82, subpart F.
HFC–134a, HFC–143, HFC–245fa, HFC–32, HFC–152	Part 9 of 2008 Appendix C for Analytical Procedures for AHRI Standard 700–2014, incorporated by reference in appendix A to 40 CFR part 82, subpart F.
HFC–365mfc, HFC–227ea, HFC–236cb, HFC–236ea, HFC–236fa, HFC–245ca, HFC–43–10mee.	EPA Method 18; appendix A–6 to 40 CFR part 60—Test Methods 16 through 18.

EPA also requested comment on whether EPA Method 18 is an

appropriate sampling and testing method to require for HFCs that are not

covered in the requirements in appendix A to 40 CFR part 82, subpart

³⁶ These two references to the required records and added recordkeeping requirements were incorrectly listed as 40 CFR 84.33 in this rulemaking’s proposal at 87 FR 66392, but it was clear contextually that EPA was referring to recordkeeping provisions in 40 CFR 84.31, as

directly stated in the proposal’s preamble section VII.B at 87 FR 66394 and in the proposed regulatory text at 87 FR 66407–66408.

³⁷ Although EPA’s proposal referred to proposed “testing methods” for regulated substances offered for non-refrigerant uses, testing methods also

include prescribed sampling provisions that are appropriate for the given testing methodology. For clarity, in this final rule EPA is referring to these finalized requirements as sampling and testing methods, though sampling is already encompassed in testing methodologies.

F, *i.e.*, HFC-365mfc, HFC-227ea, HFC-236cb, HFC-236ea, HFC-236fa, HFC-245ca, HFC-43-10mee, as proposed and listed in Table 3 of this preamble above, or if EPA could rely on appendix A to 40 CFR part 82, subpart F, including appendix A1 and the incorporated appendix C to AHRI Standard 700-2014, for all sampling and testing requirements.

One commenter supported the proposed sampling and testing requirements. Other commenters stated that existing practices sufficiently ensure that composition and specification standards are met without codifying further requirements. The commenters that opposed the proposed testing requirements cited concerns about burden, feasibility, and potential implications on business operations. One commenter suggested an analysis that would focus on organic purity and composition for purposes of confirming the identity of imported regulated substances should be used rather than EPA codifying required sampling and testing methodology such as the AHRI 700 standard specification incorporated into appendix A to 40 CFR part 82, subpart F.

The Agency understands that business and industry practices are intended to ensure that regulated substances sold or distributed meet commercial requirements. As described below, the Agency acknowledges concerns about potential burden and is making some changes from the proposal. EPA appreciates the benefits, where appropriate, of accommodating standard industry practices and providing flexibility for laboratories. However, as explained in the Framework Rule, testing and sampling requirements for regulated substances helps to ensure correct identification and labeling, which among other things, helps to ensure accurate quantities of allowance expenditures.

One commenter suggested EPA provide the opportunity to demonstrate that alternative analytical methods are equivalent to those specified (or incorporated by reference) in appendix A to 40 CFR part 82, subpart F, and EPA Method 18. In response to this comment, EPA is making adjustments to the requirements being finalized. Section 5.3 of appendix A to 40 CFR part 82, subpart F (which is based on AHRI 700-2016) identifies the test methods in the section as “referee tests” and states that, “[i]f alternative test methods are employed, the user must be able to demonstrate that they produce results at least equivalent to the specified referee test method.” In the proposal, as outlined in Table 3 of this

preamble, EPA did not propose to include Section 5.3 of appendix A to 40 CFR part 82, subpart F. However, in response to the comments received, in the regulatory requirements finalized in this action the Agency points out that by including section 5 of appendix A to 40 CFR part 82, subpart F, alternative test methods may be used when the alternative test methods have been demonstrated to produce at least equivalent results to the referee test methods in appendix C to AHRI Standard 700-2014. The referee test for refrigerant identification is specified in section 5.3 of appendix A to 40 CFR part 82, subpart F as gas chromatography as described in 2008 appendix C to AHRI Standard 700-2014 (incorporated by reference, see 40 CFR 82.168(b)(2)). Appendix C to AHRI Standard 700-2014 contains several different gas chromatography methods, specialized for different refrigerant types. Section 7 of each method in appendix C to AHRI Standard 700-2014 (*i.e.*, for Parts 7 and 9) provides information concerning the sensitivity, precision, and accuracy of that test method. Therefore, to demonstrate that an alternate test method is equivalent, it is sufficient to demonstrate that the alternate test method can achieve the same sensitivity, precision, and accuracy as the referee test method.

A few commenters raised concerns about EPA’s proposal to require use of EPA Method 18 for certain regulated substances not covered in the methodology in appendix A to 40 CFR part 82, subpart F. One commenter stated that EPA Method 18 applies to analysis of gaseous emissions and not to pure substances. Another commenter stated that EPA Method 18 is overly burdensome to regulated entities. Some commenters noted available alternatives. One commenter stated that methods for non-refrigerant regulated substances already exist in American National Standards Institute (ANSI)/ American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE) Standard 34, have applicable methods in AHRI 700, or for any not listed in AHRI 700, ISO 9001 certification provides confirmation that sampling procedures, analytical methods, calibration procedures, manufacturing specifications and sales specifications are documented and followed. One commenter suggested that EPA allow use of ASTM standards for HFC-227ea, HFC-125, and HFC-236fa when offered for sale or distribution for fire suppression, specifically ASTM D6231, D6541, and D6064 (for HFC-125, HFC-236fa, and

HFC-227ea, respectively), which incorporate ASTM D6806. The commenter stated that ASTM D6806 dictates gas chromatography calibration methods for accuracy, while the ASTM D6064 standard provides rigorous gas chromatography setting protocols in the body of the standard. The commenter stated these standards are important to the fire protection community and are used as industry references in varying contexts.

EPA acknowledges the comments and is making some changes from the proposal as described below. EPA appreciates the benefits, where appropriate, of accommodating standard industry practices and providing flexibility for laboratories. However, it is also important that the testing methods used to verify the composition of all bulk HFCs achieve a certain level of accuracy. As described below, EPA is codifying requirements through this rulemaking to ensure accurate testing and consistency throughout the HFC regulatory environment but is providing flexibility by only requiring either applicable portions of EPA Method 18 or ASTM D6806. EPA Method 18 provides for any gas chromatography method that separates all compounds and quantitates all peaks with 5 percent of the total peak area. ASTM D6806 provides a performance-based specification of gas chromatography analysis and is included in the fire suppression standards referenced in comments as a testing method to analyze purity. For the reasons described in this section, the Agency believes that these approaches are sufficiently general to not be burdensome to regulated entities and that EPA’s modifications are responsive to the concerns raised in comments.

Appendix A to 40 CFR part 82, subpart F, 2008 Appendix C to AHRI Standard 700-2014, and ANSI/ASHRAE Standard 34 do not include specific testing methodologies for determining the quality of HFC-227ea, HFC-236cb, HFC-236ea, HFC-236fa, HFC-245ca, HFC-365mfc, and HFC-43-10mee. As a result, the Agency proposed the use of EPA Method 18 because it specifies analytical methods that are applicable to determining the composition of non-refrigerant HFCs, including quality control, calibration, and analytical procedures related to gas chromatography. EPA was not aware of other alternative testing methodologies that suitably address the necessary test procedures for HFC-227ea, HFC-236cb, HFC-236ea, HFC-236fa, HFC-245ca, HFC-365mfc, and HFC-43-10mee. EPA acknowledges that EPA Method 18 is designed to measure gaseous organics

emitted from an industrial source and includes provisions, particularly related to sampling, which are not directly related to the requirements under 40 CFR 84.5(i)(3). The EPA proposed to codify the requirement to use EPA Method 18 as a whole for the identified regulated substances, but in referring to the entirety of EPA Method 18, including the aforementioned provisions that are not directly related to the requirements under 40 CFR 84.5(i), the proposed form of the requirement could have posed unnecessary burden on laboratories performing testing of regulated substances. Accordingly, for the specified HFCs that are not listed in appendix A to 40 CFR part 82, subpart F, EPA has identified relevant portions of EPA Method 18 that are applicable to these HFCs, and the Agency is finalizing this narrower subset of relevant portions. As an alternative to these relevant portions of EPA Method 18, the Agency is also allowing the use of ASTM D6806 to analyze these HFCs and is incorporating ASTM D6806 by reference in 40 CFR 84.37. ASTM D6806 is a performance-based standard of gas chromatography methods that defines what is required for a user to demonstrate that a method to be used is valid. This standard allows flexibility for a laboratory to apply appropriate testing methods, such as industry standards which have recently been reviewed and validated, ensures that the testing meets standard practices, and broadly applies to non-refrigerant regulated substances that are not listed in appendix A to 40 CFR part 82, subpart F.

These changes from proposal also address in a consistent approach one commenter's request to allow the use of testing methods ASTM D6231, D6541, and D6064 for non-refrigerant HFCs used in fire suppression and EPA is incorporating these three standards by reference in 40 CFR 84.37. Relevant components of ASTM D6231 and D6541 are included in the finalized requirements because those standards reference and specify the use of ASTM D6806 as the test method to conduct the purity analysis. ASTM D6064 has also been demonstrated to be equivalent to the designated referee test method in appendix C to AHRI Standard 700–2014 and therefore can be used as an alternative test method for non-refrigerant HFCs prescribed requirements in appendix A to 40 CFR part 82, subpart F. Commenters also cite to ISO 9001. EPA notes that ISO 9001 is a quality management program that is not specific to laboratory testing,

refrigerants, or HFCs, and has determined not to include the standard in the regulations being amended through this final rule.

One commenter asked that EPA exempt from the testing requirements fire protection equipment manufacturers that would qualify as repackagers and instead allow those entities to rely on a certificate of analysis to verify the composition of a container. The commenters described that fire equipment manufacturers that would qualify as repackagers purchase bulk regulated substances, transfer the bulk regulated substances into system cylinders or portable extinguishers which constitute final products, and then the bulk regulated substances are not transferred or removed until servicing or decommission. The commenter specifically requested that the repackager not be required to retest the substance before or after it has been transferred into a system cylinder or a portable fire extinguisher. The commenter also stated that fire suppressant recyclers should not have to retest bulk regulated substances after they have been transferred from an original, larger batch container into a system cylinder or portable extinguisher if the repackager has already tested a representative sample of the regulated substances within the batch container.

EPA understands the commenter to be requesting that fire protection equipment manufacturers that would qualify as repackagers be exempted from the requirements established in the Allocation Framework Rule at 40 CFR 84.5(i)(3)(i), which specifies that entities recycling for fire suppression or repackaging regulating substances (for any use) must test a representative sample of the recycled or repackaged regulated substances before they are initially sold or distributed. The commenter references a practice related to transferring regulated substances into system cylinders or portable extinguishers. With respect to portable extinguishers, EPA notes that under the definition of "bulk" in 40 CFR 84.3, a regulated substance contained in a fire extinguisher is not a bulk substance. As a result, fire extinguishers are not subject to any requirements under 40 CFR part 84, subpart A, including the sampling and testing requirements.

With respect to system cylinders, they are bulk regulated substances and are therefore subject to requirements in 40 CFR part 84, subpart A. Under the requirements being finalized in this rule, testing of regulated substances is required any time a qualifying action, such as repackaging, is performed on the regulated substances. Given the

importance of verifying the label matches the contents of a container of HFCs, the Agency does not see a basis to allow fire protection equipment manufacturers that would qualify as repackagers to rely on a certificate of analysis instead of performing sampling and testing to verify the composition of the larger batch container like all other repackagers. Retesting individual cylinders is not required once they have been initially sold. The Agency's definition of representative sample as described and finalized below in section VII.C of this preamble allows for testing of the original, larger batch container if the composition of the original batch container is the same as the intended composition of the smaller bulk container. In other words, an entity could retain a recycled batch of regulated substances in a larger container, test a representative sample of the bulk regulated substances within that larger container, transfer bulk regulated substances from the larger container to a population of smaller containers, and apply those test results to verify the composition of the smaller containers. Similarly, this approach would also be appropriate when repackaging HFCs from one original, larger batch container to smaller bulk containers (*e.g.*, system cylinders), so long as the composition of the original, larger container is intended to match the smaller containers. EPA stresses that under this definition of the representative sample, the repackager retains the burden to ensure that the test represents the composition in the population of containers but allows for process controls or other quality control techniques to make this demonstration.

EPA sought comment on whether to extend the testing and sampling requirement in 40 CFR 84.5(i)(3) to exporters (or exporters that request additional consumption allowances under 40 CFR 84.19) to verify the regulated substances being exported match the label and, where relevant, the request for additional consumption allowances. One commenter responded without specific information that existing requirements along with auditing requirements should be sufficient to confirm regulated substances being exported match the container label. The Agency disagrees. Exported regulated substances may include inventory introduced prior to the establishment of requirements under 40 CFR part 84 and available information may not be able to confirm the composition of such exported regulated substances. Regardless of whether the exported regulated

substances were produced prior to 2022, sampling and testing requirements for exported HFCs helps ensure EPA is collecting accurate information to gauge U.S. consumption relative to the annual limit prescribed in the AIM Act. Sampling and testing is also important for RACAs, where EPA relies on submitted documentation to evaluate the verified quantity of regulated substances exported and issues consumption allowances equivalent to the quantity of regulated substances that were exported. EPA is concerned about the possibility of fraud if there are not adequate safeguards in place, such as a requirement to confirm the quantity of regulated substance(s) in the container(s) matches the label and documentation being submitted to EPA and CBP. The Agency also notes that auditing requirements under 40 CFR 84.33 do not provide a means to ensure the accurate identification of regulated substances documented as exported. Accordingly, EPA is extending the testing and sampling requirements to regulated substances that are exported. The Agency does not expect this requirement to add significant additional burden, since the destination for each container of regulated substances may not be known at the time the container is filled and producers, importers, and all other repackagers and cylinder fillers would follow one sampling and testing methodology for each HFC or HFC blend regardless of whether this requirement was extended to exports.

EPA also sought comment on whether to extend the testing and sampling requirements to additional entities, including others that sell or distribute

regulated substances, or that offer them for sale and distribution as well as those that transform, use as a process agent, destroy, or receive application-specific allowances in the six applications listed in subsection (e)(4)(B)(iv) of the AIM Act to further ensure the label matches the regulated substance in containers and aid in the detection of off-specification and potentially non-compliant containers of regulated substances. Two commenters stated that it was not necessary to extend the testing and sampling to additional entities that receive application-specific allowances in the six applications listed in subsection (e)(4)(B)(iv) of the AIM Act, due to existing industry and regulatory practices that already require high purity standards. One commenter stated that the proposed sampling and testing requirements may in fact contribute to contamination of these high purity materials. Another commenter stated that its industry sector is already subject to rigorous sampling, testing, and data requirements under existing Federal regulations. The Agency appreciates the commenters' input and is not extending the current testing and sampling requirements to the additional entities listed. EPA notes that the testing and sampling requirements under 40 CFR part 84, subpart A apply to the entity initially performing the relevant action. As an example, an entity that produces regulated substances for use in metered dose inhalers must first test a representative sample of the regulated substances prior to sale or distribution. Other entities (*e.g.*, metered dose inhaler manufacturers) may then purchase the regulated substances without having to

conduct further testing. The recipient entity is only required to conduct additional testing if a qualifying action such as repackaging is performed on the regulated substances.

For the reasons described previously, EPA is finalizing revisions to 40 CFR 84.5(i)(3)(i) to add requirements to use the testing methodology prescribed in appendix A to 40 CFR part 82, subpart F for regulated substances offered for sale and distribution as refrigerants and the sampling and testing methods in Table 4 of this preamble for regulated substances offered for non-refrigerant uses. The Agency is also extending the requirements in 40 CFR 84.5(i)(3)(i) to regulated substances that are exported. Once these revisions go into effect, regulated entities will be required to use the sampling and testing methods applicable to the list of target analytes provided at each method. Since appendix C to AHRI Standard 700–2014 (incorporated by reference in § 84.37) does not include specific test procedures for determining the quality of regulated substances that are not used as refrigerants, EPA is also requiring the use of either sections 8 through 13 of EPA Method 18 as applicable or ASTM D6806 (incorporated by reference in § 84.37 for HFC–227ea, HFC–236cb, HFC–236ea, HFC–236fa, HFC–245ca, HFC–365mfc, HFC–43–10mee, isomers of listed regulated substances, and blends of regulated substances not used as a refrigerant. EPA Method 18, “Measurement of gaseous organic compound emissions by gas chromatography,” can be found at appendix A–6 to 40 CFR part 60—Test Methods 16 through 18.

TABLE 4—FINALIZED NON-REFRIGERANT REGULATED SUBSTANCE SAMPLING AND TESTING METHODS

Regulated substance	Sampling and testing method
HFC–23, HFC–134, HFC–125, HFC–143a, HFC–41, HFC–152a	Appendix A to 40 CFR part 82, subpart F, Sections 1, 2, 3, 5.1, 5.2, 5.3, 7, 8; <i>Part 7 of 2008 Appendix C for Analytical Procedures for AHRI Standard 700–2014—Normative</i> (incorporated by reference in § 84.37). ³
HFC–134a, HFC–143, HFC–245fa, HFC–32, HFC–152	Appendix A to 40 CFR part 82, subpart F, Sections 1, 2, 3, 5.1, 5.2, 5.3, 7, 8; <i>Part 9 of 2008 Appendix C for Analytical Procedures for AHRI Standard 700–2014—Normative</i> (incorporated by reference in § 84.37). ³
HFC–365mfc, HFC–227ea, HFC–236cb, HFC–236ea, HFC–236fa, HFC–245ca, HFC–43–10mee.	Sections 8, ¹ 9, 10, 11, 12, ² and 13 of EPA Method 18 as applicable—appendix A–6 to 40 CFR part 60—Test Methods 16 through 18. Or ASTM D6806–02 (2022), <i>Standard Practice for Analysis of Halogenated Organic Solvents and Their Admixtures by Gas Chromatography</i> (incorporated by reference in § 84.37). ⁴

¹ Only applicable portions of section 8 as specified here are required. Canisters may be used in place of bags for the purposes of these requirements. A sampling and analysis procedure under section 8.2 which provides for a representative sample is required (while section 8.2.1.5 is likely most appropriate, other procedures may be acceptable). Sections 8.4.1, 8.4.2.1, and 8.4.2.2 are required.

² “Dry basis” concentrations do not need to be recorded.

³ ASTM D6064–11 (reapproved 2022), *Standard Specification for HFC–227ea, 1,1,1,2,3,3,3-Heptafluoropropane (CF3CHFCF3)* (incorporated by reference in § 84.37) may be used as an alternative for non-refrigerant regulated substances offered for fire suppression use.

⁴ ASTM D6231/D6231M–21, *Standard Specification for HFC–125 (Pentafluoroethane, C2HF5)* (incorporated by reference in § 84.37) and ASTM D6541–21 *Standard Specification for HFC–236fa, 1,1,1,3,3,3-Hexafluoropropane, (CF3CH2CF3)*, (incorporated by reference in § 84.37) reference ASTM D6806 and may be used as an alternative for non-refrigerant regulated substances offered for fire suppression use.

ii. Specifications

In the sampling and testing section of the proposal, EPA proposed to clarify that the existing requirement at 40 CFR 84.5(i)(3)(ii), that no person may sell or distribute, or offer for sale or distribution, regulated substances as a refrigerant that do not meet the specifications in appendix A to 40 CFR part 82, subpart F—Specifications for Refrigerants, is applicable for a single component substance, *i.e.*, neat substance, or a multicomponent substance, *i.e.*, a blend or mixture containing one or more regulated substances. EPA received no comments on this aspect of the proposal, and is finalizing the clarification as proposed.

EPA also proposed to add a requirement under 40 CFR 84.5(i)(3)(ii) that entities producing, importing, reclaiming, recycling for fire suppression, or repackaging regulated substances must verify the applicable refrigerant specifications using the sampling and testing methodology prescribed in appendix A to 40 CFR part 82, subpart F. One commenter supported the proposed sampling and testing requirements. One commenter stated that not all HFC sales specifications conform exactly with AHRI 700 (*e.g.*, SAE J2776 specifications for automotive HFC–134a allow a higher moisture level than AHRI 700). The commenter was incorrect in its statement that the allowed moisture contents vary between SAE J2776 and AHRI 700. The moisture limit in SAE J2776 references the AHRI 700 requirements, and both, along with the existing requirements in appendix A to 40 CFR part 82, subpart F, set the moisture limit as 10 ppm by weight. EPA also understands that HFC–134a which meets the specifications in Table 1A of appendix A to 40 CFR part 82, subpart F would be suitable for

automotive use. However, the Agency acknowledges potential challenges for regulated substances recycled in accordance with 40 CFR part 82, subpart B for use as a refrigerant in motor vehicle air conditioning (MVAC) and MVAC-like appliances to meet the requirements in appendix A to 40 CFR part 82, subpart F. Under a change being finalized at 40 CFR 84.5(i)(3)(ii), the act of recycling would not require an entity to verify that the recycled MVAC refrigerants meet the specifications in appendix A to 40 CFR part 82, subpart F.

When recycling of regulated substances occurs for use in MVAC and MVAC-like appliances, the refrigerant is typically recovered using a recycling machine from MVAC/MVAC-like appliances (*e.g.*, to remove some impurities) and transferred to a holding container. It is then either recharged into the same equipment it was recovered from as part of the same servicing event or held in that container until it is used to recharge other MVAC/MVAC-like appliances. Generally speaking, the regulated substance is not being transferred between containers and/or service shops, and the refrigerant is not being distributed or sold further in a container. There is not a label that would need to be verified and the recycled HFC is not being repackaged. Requiring this refrigerant to meet a higher standard than already required by existing EPA regulations and testing to confirm regulated HFC refrigerants meet a higher specification standard in these instances prior to sales is unnecessary for purposes of 40 CFR 84.5(i)(3)(ii) and would be contrary to standard industry practices. Accordingly, and consistent with longstanding requirements under 40 CFR part 82, EPA is excepting regulated substances used as refrigerants in MVAC and MVAC-like appliances from

the general prohibition in 40 CFR 84.5(i)(3)(ii), so long as the regulated substance(s) was used only in an MVAC or MVAC-like appliance, is to be used only in MVAC or MVAC-like appliances, and is recycled in accordance with 40 CFR part 82, subpart B. Accordingly, regulated substances recycled solely for use in MVAC and MVAC-like appliances may be sold, distributed, or offered for sale or distribution without meeting the full specifications in appendix A to 40 CFR part 82, subpart F.

As discussed above in this section, EPA reiterates that the testing and sampling requirements under 40 CFR part 84, subpart A apply to the entity initially performing the relevant action. As an example, testing and sampling are required prior to the first sale or distribution of regulated substance in a newly filled or imported container. Testing is not required for future points of sale or distribution if regulated substances are not further processed or transferred between containers.

EPA sought comment on whether to establish purity and other specifications for non-refrigerants similar to those found in appendix A to 40 CFR part 82, subpart F or if the proposed approach of requiring the label to match the nominal composition of regulated substance(s) in the container is sufficient to ensure purchasers know the contents of the container and that all entities can verify the number of allowances that needed to be expended when the regulated substances in the container were imported or produced. The Agency did not receive comment on this issue and is not finalizing purity and other specifications for non-refrigerant regulated substances at this time. For illustrative purposes, EPA is noting the specifications for regulated substances in Table 5.

TABLE 5—REGULATED SUBSTANCE SPECIFICATIONS

Regulated substance	Specifications
HFC–23, HFC–32, HFC–125, HFC–134a, HFC–143a, HFC–152a, HFC–227ea, HFC–236fa, HFC–245fa.	Refrigerant use: All in Table 1A of appendix A to 40 CFR part 82, subpart F. Non-refrigerant use: Testing results match nominal composition on label.
HFC–41, HFC–134, HFC–143, HFC–152, HFC–236cb, HFC–236ea, HFC–245ca, HFC–365mfc, HFC–43–10mee.	Refrigerant use: All in appendix A1 to 40 CFR part 82, subpart F. Non-refrigerant use: Testing results match nominal composition on label.

Collectively, the changes ensure that defined procedures are used to perform testing on representative samples of single component HFCs or multicomponent HFC blends by all entities that produce, import, reclaim,

recycle for fire suppression, or repackage HFCs. Regulated substances used as refrigerants, with limited exception, must conform to the specifications provided in appendix A to 40 CFR part 82, subpart F, or, if not

listed therein, the Generic Maximum Contaminant Levels in appendix A1 to 40 CFR part 82, subpart F. EPA is not establishing specification requirements for regulated substances that are not used as refrigerants. However, the

changes require that samples of both single component HFCs and multicomponent HFC blends for any use shall be quantitatively analyzed for each component expected based on the container label, air and other non-condensables, impurities (both volatile impurities and halogenated unsaturated volatile impurities), and high boiling residue. Among other purposes, compliance with these requirements ensures the label matches what is in the container.

B. Recordkeeping of Tests

EPA proposed to modify the existing recordkeeping requirements in 40 CFR 84.31 to specify that the types of records required to be maintained related to testing results include instrument calibration, sample testing data files, and results summaries of both sample test results and quality control test results that are in a form suitable and readily available for review.

One commenter expressed support for the modified recordkeeping requirements. Another requested that the requirements follow best practices and avoid unnecessary duplication of other requirements. One other commenter requested EPA consider whether these requirements would be overburdensome and unnecessary. Commenters also asked for clarification on which instrument calibration records were intended to be maintained and what qualifies a form as suitable for review. EPA responds that these recordkeeping requirements may be necessary to support enforcement efforts under the HFC Phasedown program if EPA identifies an off-specification or mislabeled container of regulated substances and needs to confirm proper testing was conducted to verify the contents of the container(s). The commenter did not identify any alternative best practices, duplication, or particular undue recordkeeping burden associated with the proposed recordkeeping requirements. The Agency is unaware of such concerns as well and sees value in requiring the documentation to be maintained. These records support the integrity of this testing regime by enabling EPA to assess on inspection records, which document and validate test results. In response to requests for clarification, EPA clarifies that instrument calibration documentation must include records in accordance with the required sampling and testing methodologies such that an outside observer can reasonably assess whether the correct methodology was followed and to verify test results. As one example, ISO 17025 requires that retained records include calibration

dates, results of calibrations, adjustments, acceptance criteria, and the due date of the next calibration or the calibration interval. A suitable form consists of dated paper or electronic documentation organized to clearly associate test results with the tested regulated substances and containing all related and applicable calibration, quality control, and audit trail³⁸ documentation for given test methods and results. In reviewing comments received and the Agency's proposal, EPA has determined that these dated records, including audit trail documentation of any modifications to records, are critical to ensure data integrity and allow outside observers to verify the validity of testing methodologies and results. Under standard practice entities may revise initial records after an error has been discovered. Such modifications could also reflect intentional efforts to conduct fraud. Audit trail documentation provides a transparent way to identify and assess such changes. The Agency understands that there are existing options in the data collection software that would present minimal increased burden and can be turned on to track changes to the various files associated with the analysis performed on the instrument. As a result, EPA is adding audit trail files as a component of the recordkeeping requirements, as well as finalizing the remaining recordkeeping requirements as proposed.

EPA proposed to extend the general recordkeeping requirement for test records to include recyclers for fire suppression and repackagers since the existing requirement in 40 CFR 84.5(i)(3)(i) requires fire suppressant recyclers and repackagers to test a representative sample of regulated substances before they are sold. The Agency did not receive comment on the proposal. Consistent with the request for comment on whether to extend the testing and sampling requirements, EPA also sought comment on whether to extend these requirements to other entities, such as by establishing recordkeeping requirements in 40 CFR 84.31(d) for exporters. As described above in section VII.A of this action, the Agency is extending the testing and sampling requirements to regulated substances that are exported. EPA did not receive comment on the issue of whether to extend related recordkeeping requirements to other entities. The Agency considers it appropriate that all

³⁸ Secure, computer-generated, time-stamped audit trails are used to independently record the date and time of operator entries and actions that create, modify, or delete electronic records.

entities subject to the sampling and testing provisions in 40 CFR part 84, subpart A must maintain associated records. Accordingly, in this action, EPA is finalizing its proposal to extend the recordkeeping requirement for test records from producers, importers, and reclaimers to include recyclers for fire suppression and repackagers. The Agency is also establishing test records recordkeeping requirements for exporters. Specifically, EPA is adding recordkeeping provisions at, respectively, 40 CFR 84.31(j)(3)(ii) and 84.31(k)(1), and 40 CFR 84.31(d) requiring that recyclers for fire suppression, repackagers, and exporters maintain dated records of batch tests of regulated substances packaged for sale, distribution, or export, including information on instrument calibration, sample testing data files, audit trail files, and results summaries of both sample test results and quality control test results that are in a form suitable and readily available for review.

Associated with this proposal to extend the general recordkeeping requirement for test records to include recyclers for fire suppression and repackagers, the Agency also provided interpretations on how it understood the terms "fire suppressant recyclers"³⁹ and "repackagers",⁴⁰ requested comment on whether existing interpretations and guidance provide sufficient clarity, and requested comment on whether to codify these interpretations in regulatory definitions. One commenter suggested the Agency codify a definition of "fire suppressant recycler" with two significant modifications. The first modification was to remove the reference to purity

³⁹ EPA presented the following interpretation at proposal: Generally, an entity that collects used HFC fire suppressants and directly resells those recovered HFCs—with or without any additional reprocessing including testing for purity—to another person for reuse as a fire suppressant would qualify as a fire suppressant recycler (also referred to as a "recycler for fire suppression" in 40 CFR part 84, subpart A). A person that recovers and aggregates used HFC fire suppressants for distribution to another entity for reprocessing before being sold for reuse as a fire suppressant would not be a fire suppressant recycler. Reselling HFC fire suppressants that have already been recovered and subsequently reprocessed by another person would not be a fire suppressant recycler. In effect, a fire suppressant recycler is the first entity to reintroduce recovered HFC fire suppressants into the market use as fire suppressant. 87 FR 66394, n.48.

⁴⁰ The Agency presented the following interpretation at proposal: EPA views repackagers and cylinder fillers interchangeably under the regulations at 40 CFR part 84, subpart A, and would define repackagers as entities who transfer regulated substances, either alone or in a mixture, from one container to another container prior to sale or distribution or offer for sale or distribution. 87 FR 66394, n.49.

testing, as existing NFPA standards require that the agent be tested for purity before it is reused as a fire suppressant. The commenter stated that EPA's language may imply that testing was optional under NFPA standards. The second modification was the removal of the last sentence, as commenters believed the phrase "market use" added confusion to the definition. The Agency understands that the references to purity testing and market use are unnecessary to explain which actions and entities are included within the definition. Including other edits for clarity, EPA accordingly is codifying the following definition of "fire suppressant recycler": "Generally, an entity that collects used HFC fire suppressants and directly resells those collected and aggregated HFCs—with or without any additional reprocessing—to another entity for reuse as a fire suppressant (also referred to as a "recycler for fire suppression" in this subpart). An entity that collects and aggregates used HFC fire suppressants for distribution to another entity for reprocessing before being sold for reuse as a fire suppressant would not be a fire suppressant recycler. An entity that resells HFC fire suppressants that have already been reprocessed for use as a fire suppressant by another entity would not be a fire suppressant recycler."

The Agency did not receive comment on whether to codify a definition of "repackagers" and in this action is codifying the definition of "repackagers" to mean "entities who transfer regulated substances, either alone or in a blend, from one container to another container prior to sale or distribution or offer for sale or distribution." Establishing a defined term in 40 CFR 84.3 will improve clarity and support compliance with the sampling and testing requirements for repackagers being finalized in this rule. This is particularly relevant and helpful given the comments received on this rule from fire suppressant recyclers.

A commenter also expressed concern regarding how these definitions may be applied to the fire suppression industry. The commenter stated that fire equipment distributors that service equipment directly and through cylinders exchanges should not be considered fire suppressant recyclers. Servicing may consist of transferring the HFCs from the equipment and transferring the HFCs directly back into the same equipment, or through a cylinder exchange where customers return their equipment and receive different previously serviced equipment. EPA understands that direct servicing entails periodically removing

bulk regulated substances from the system cylinder and transferring it to a holding tank in order to perform a hydrostatic test to evaluate the cylinder's integrity. The bulk regulated substances are not recycled or otherwise processed and are then returned to the same system cylinder for continued use in the same application. In other words, it is the system cylinder that is receiving the servicing and not the regulated substance. As described in this section above, this direct servicing of a system cylinder is not intended to result in resale or redistribution of regulated substances because the same regulated substances are returned to the same original customer. The key distinguishing feature for why this activity does not fall under the definition of a fire suppressant recycler is the fact that the regulated substance is not being resold to another entity but is being returned to the original owner. The Agency notes that a cylinder exchange, where regulated substances and/or system cylinders are recovered from one entity's equipment and sold or distributed to another entity would fall under the definition of "fire suppressant recycler," unless the company recovering the cylinder is sending the regulated fire suppressant to another entity that will do the recycling and repackaging before the regulated substance is sold for use in fire suppression equipment.

The same commenter expressed concern that EPA's interpretation of repackagers may include fire equipment distributors which return serviced equipment to customers. EPA agrees that fire equipment distributors could be repackagers under this definition, especially if they remove regulated substances from one system cylinder and fill a different cylinder with those regulated substances. The Agency understands that the primary concern identified in the comment is that some fire equipment distributors, who service a limited number of system cylinders in a year, may be subject to the rule and that this would be a significant burden on those entities given they are generally returning the regulated substance to the same system cylinder it was recovered from. Given the intent is to allow for servicing of the cylinder, not the regulated substance, under this final rule EPA is explicitly exempting from the definition of repackager a fire equipment distributor (or other related entity) only servicing system cylinders for fire suppression equipment—that is returning the regulated fire suppressant to the same system cylinder it was

recovered from after the system cylinder is serviced.

In combination, under this final rule, entities servicing system cylinders for fire suppression equipment are not a fire suppressant recycler or a repackager if they return the same regulated substances to the same original customer in the same system cylinder it was recovered from after the system cylinder is serviced. Further, if you are returning the same regulated substances to the same system cylinder it was recovered from after the system cylinder is serviced, you are not a repackager. In response to comments on cylinder exchanges, if cylinders are exchanged and never opened, that would not be considered repackaging, but could be categorized as fire suppressant recycling if the regulated substance is collected from one entity and then distributed to another entity. This activity would fall under the definition being finalized in this rule and would be covered by other provisions in this rule (e.g., the container tracking requirements previously finalized in 40 CFR 84.23).

C. Define "Batch" and "Representative Sample" and Clarify the Relationship Between These Terms

The Allocation Framework Rule established that reclaimers, producers, and importers are required to maintain records of the results of "batch" tests of regulated substances and EPA is extending requirements to maintain dated records of batch tests for fire suppressant recyclers, reclaimers, and exporters in this rule.

Testing requirements codified at 40 CFR 84.5(i)(3)(i) in the Framework Rule require testing of a "representative sample." Preceding subsections of this preamble outline revisions EPA is making to 40 CFR part 84, subpart A with respect to sampling and testing requirements.

EPA proposed to add a definition of "batch" to 40 CFR 84.3 and did not receive comment on this issue. In this action the Agency is adding to this proposed definition the phrase "with the same nominal composition" to clarify that a batch is associated with a larger population (e.g., a common set of mixing tanks or other larger container that the population of cylinders was filled from) for the purposes of sampling and testing required by this rule. For example, a batch of R-410A cylinders could be the cylinders that were filled after blending two or more larger ISO tanks of HFC-125 and HFC-32. The revised definition is that "batch" means a vessel, container, or cylinder from which a producer, importer, reclaimer, recycler, or repackager transfers HFCs

directly for sale or distribution, or for repackaging for sale or distribution; or a population of small vessels, containers, or cylinders with the same nominal composition that a producer, importer, reclaimer, recycler, or repackager directly offers for sale or distribution. EPA is finalizing this definition of “batch” for the reasons explained later in this section.

EPA also proposed a two-part definition of representative sample. The first part defines a representative sample of a container for sale as a sample collected from a container offered for sale or distribution using a sampling method that obtains all components of HFC(s) in an unbiased and precise manner. For the second part, EPA defines a representative sample of a batch as a sample that can be used to infer that the composition of HFC(s) in a population of containers offered for sale or distribution that constitute, or are derived from, the batch are within stated tolerances (e.g., within the specifications established in the tables in section 6 of appendix A to 40 CFR part 82, subpart F, such as composition and percent by volume air and other non-condensables). Sampling and testing methods established in 40 CFR 84.5(i)(3) provide procedures and metrics to conduct sampling of the regulated substance within a container and testing to determine whether the batch meets stated tolerances. Recordkeeping requirements for sampling and testing in general and batch testing in particular provide documentation that allows EPA to assess the validity of sampling and testing and any inferences based on use of representative samples. EPA did not receive comment on this issue and is finalizing the definition of “representative sample” as proposed for the reasons explained later in this section.

EPA is making these changes to allow for the common scenario when testing of a batch is used to satisfy the requirement for “testing of a representative sample” to verify that the composition of HFCs in containers matches the container labeling, while also requiring that these batch test results produce valid labels for individual containers. The definition of “representative sample” creates consistency between sampling and testing regulations in 40 CFR part 84, subpart A and the implied notion of a representative sample in appendix A to 40 CFR part 82, subpart F where specific methods for sampling containers are outlined. The definitions of “batch” and “representative sample” in combination ensure that testing of one portion of a

batch produces test results that are characteristic of the population of cylinders which may be filled from that batch. These changes will help clarify the recordkeeping requirements associated with maintaining records of “batch tests.”

D. Laboratory Methods and Accreditation

The existing regulations at 40 CFR 84.5(i)(2)(ii)⁴¹ provide an option to importers that want to repackage regulated substances that were initially either unlabeled or mislabeled to “[v]erify the contents with independent laboratory testing results and affix a correct label on the container that matches the test results before the date of importation (consistent with the definition at 19 CFR 101.1) of the container.” The regulations codified in the Framework Rule did not provide any detail on what would be required to ensure independence nor on the quality of the analysis that would be required of “laboratory testing.” To implement this provision fully, EPA proposed to define “laboratory testing” as the use of the sampling and testing methodology⁴² prescribed in 40 CFR 84.5(i)(3) by a laboratory that is accredited to ISO 17025.⁴³ This phrase “laboratory testing” is not currently used anywhere else in 40 CFR part 84, subpart A, so the first part of the proposal was only intended to apply to situations where a cylinder is unlabeled or mislabeled and the importer is correcting that label before the date of importation (consistent with the definition at 19 CFR 101.1). This was intended to make clear that laboratory testing requires, for

⁴¹ This reference was incorrectly listed as 40 CFR 82.5(i)(2)(ii) in this rulemaking’s proposal at 87 FR 66395. But it was clear contextually that EPA was referring to repackaging provisions in 40 CFR 84.5(i)(2)(ii), as stated in the proposed regulatory text at 87 FR 66405.

⁴² The proposed regulatory text cited the sampling and testing methodology prescribed in 40 CFR 84.5(i)(c). That reference was a clear typographical error. The sampling and testing methodology is prescribed in 40 CFR 84.5(i)(3), as discussed in section VII.A of the proposal at 87 FR 66392–66394 and the proposed regulatory text at 87 FR 66405–66406.

⁴³ In November 2017, ISO/International Electrotechnical Commission (IEC) published a new version of the test laboratory accreditation standard, ISO/IEC 17025:2017. In addition to adding a definition of “laboratory,” the new version replaces certain prescriptive requirements with performance-based requirements and allows for greater flexibility in satisfying the standard’s requirements for processes, procedures, documented information, and organizational responsibilities. ISO/IEC 17025:2017 is the version EPA proposed and is finalizing to incorporate by reference. Interested persons may purchase a copy of ISO/IEC 17025:2017 from the source provided in 40 CFR 84.37(b)(1), and it is available at https://www.techstreet.com/standards/iso-iec-17025-2017?product_id=2000100.

purposes of 40 CFR part 84, subpart A, the use of a consistent methodology and specified testing methods. EPA proposed to require that laboratories must be accredited to be used for purposes of meeting the 40 CFR 84.5(i)(2)(ii) requirements to repackage initially unlabeled or mislabeled regulated substances. This was intended to make clear that laboratory testing requires, for purposes of 40 CFR part 84, subpart A, the use of a consistent methodology and specified testing methods. The Agency sought additional comment on whether the AHRI Certified Refrigerant Testing Laboratory program and others should be allowed in addition to ISO 17025 laboratories.

The Agency also sought comment on whether to require that all testing under 40 CFR 84.5(i)(3) be conducted by an independent and/or accredited laboratory. The Agency sought further comment on whether other safeguards are in place at laboratories that are currently typically used by this regulated community that are similar in nature to accreditation, such as certification by an independent third party, that would decrease the importance of testing being conducted by an independent and/or accredited laboratory. In effect, EPA was seeking comment on whether to use the phrase “independent laboratory testing” or “laboratory testing” in 40 CFR 84.5(i)(3) in addition to 84.5(i)(2)(ii).

EPA did not receive comment on its proposal to specifically require laboratories be accredited to meet the requirements under 40 CFR 84.5(i)(2)(ii) to repackage initially unlabeled or mislabeled regulated substances. Commenters strongly opposed requiring all testing under 40 CFR 84.5(i)(3) be conducted by an independent and/or accredited laboratory. Commenters stated that the requirement would be burdensome, redundant, and may interfere with internal quality control and operations. As noted in section VII.A of this preamble, two commenters also stated that existing industry and regulatory practices require high purity standards and one commenter noted that existing Federal regulations for its industry sector also have rigorous sampling, testing, and data requirements.

If EPA were to require accreditation or certification, commenters generally opposed potential requirements that laboratories conducting testing must be accredited to ISO 17025 and instead suggested a variety of alternatives. One commenter suggested EPA consider flexibility in implementing testing laboratory accreditation or certification provisions, including specifically

allowing use of in-house laboratories when they meet similar quality safeguards as ISO 17025 certification. Two commenters stated that their facilities and associated laboratories were already certified to ISO 9001 and further requirements were unnecessary. One commenter stated a preference for AHRI standards because AHRI standards are specific to HFCs. Multiple commenters variously recommended that acceptable certifications include AHRI Certified Refrigerant Testing Laboratories, ISO 9001, or those in compliance as described in EPA's Quality Program-Related Regulations, which include overarching quality management system standards such as ISO 9001 and ISO/TS 16949. Commenters stated that these certifications are suitable to ensure testing and sampling goals, better align with existing industry practices, and would be less burdensome to industry.

EPA acknowledges the support for allowing the use of all laboratories, including in-house laboratories, that meet suitable quality standards, and is not finalizing a requirement that all laboratory testing under 40 CFR 84.5(i)(3) be done by independent laboratories. However, the Agency is finalizing a requirement that laboratory testing under 40 CFR 84.5(i)(3) be done by an accredited or certified laboratory. EPA places weight on the fact that laboratory accreditation bodies assess a variety of aspects of a laboratory, including the technical competence of staff; the validity and appropriateness of test methods; traceability of measurements and calibration to national standards; suitability, calibration, and maintenance of the testing environment; sampling, handling, and transportation of test items; and quality assurance of test and calibration data. Accreditation ensures that laboratories follow good laboratory practices and that their operations have been reviewed by a recognized accreditation authority. The Agency notes that ISO 9001 and EPA's Quality-Program Regulated Regulations are quality-management programs that are not specific to laboratory testing or HFCs. EPA acknowledges commenters' support for allowing AHRI Certified Laboratory Program certification in addition to ISO 17025 accreditation. The AHRI certification program is less rigorous than ISO 17025, but does address HFCs and refrigerants and is commonly used by entities regulated by this rule. On review of other safeguards in place at laboratories that are currently typically used by this regulated community that are similar in nature to

accreditation, such as certification by an independent third party, the Agency also identified the Occupational Safety and Health Administration's (OSHA) Nationally Recognized Testing Laboratory program under 29 CFR 1910.7 as a suitable alternative certification program that is well-established and ensures laboratories follow good laboratory practices. OSHA recognizes laboratories as meeting the requirements in 29 CFR 1910.7 to perform testing and certification of products using consensus based test standards. These requirements are: the capability to test and evaluate equipment for conformance with appropriate test standards; adequate controls for the identification of certified products, conducting follow-up inspections of actual production; complete independence from users (*i.e.*, employers subject to the tested equipment requirements) and from any manufacturers or vendors of the certified products; and effective procedures for producing its findings and for handling complaints and disputes. OSHA regularly inspects and audits these laboratories to verify that they sustain the quality of their operations and continue to meet the requirements for recognition.

As discussed at proposal, EPA has determined that additional stringency is justified with respect to the 40 CFR 84.5(i)(2)(ii) since the regulatory revisions apply to unlabeled or mislabeled container(s). Under 40 CFR 84.5(i)(2)(ii), as revised under section VIII.B of this preamble, the importer of record is required in cases of repackaging unlabeled or mislabeled containers to verify the results with independent laboratory testing. In addition to the general requirements established in this rulemaking that sampling and testing must be conducted by accredited or certified laboratories that use the methodologies prescribed in 40 CFR 84.5(i)(3), EPA is maintaining the existing requirement that these laboratories verifying results under 40 CFR 84.5(i)(2)(ii) must be independent. As noted previously, the Agency acknowledges commenters' concerns regarding a broader independent laboratory testing requirement and is not finalizing a requirement under 40 CFR 84.5(i)(3) that all laboratory testing be conducted by an independent laboratory.

One commenter noted that it may take time to acquire appropriate certification and/or accreditation. To ensure sufficient time for entities to comply, EPA is delaying the effective date of the requirement for laboratories to attain accreditation or certification under one

of the three options until October 1, 2024.

After considering comments received, the Agency is finalizing the requirement that "laboratory testing" means the use of the sampling and testing methodology prescribed in 40 CFR 84.5(i)(3) by a laboratory that is accredited to ISO 17025 in accordance with ISO/IEC 17025:2017(E) (incorporated by reference in § 84.37) or certified under the AHRI Refrigerant Testing Laboratory Certification Program in accordance with the AHRI Refrigerant Testing Laboratory Certification Program Operations Manual and the AHRI General Operations Manual (both incorporated by reference, see § 84.37) or recognized under OSHA's Nationally Recognized Testing Laboratory program in accordance with requirements codified at 29 CFR 1910.7. EPA is also adding the term "laboratory testing" to sampling and testing requirements in 40 CFR 84.5(i)(3)(i) and 40 CFR 84.5(i)(3)(ii). Along with the existing independent laboratory testing requirements in 40 CFR 84.5(i)(2)(ii), the codified definition of "laboratory testing" in 40 CFR 84.3 applies to these three instances in 40 CFR 84.5(i).

E. Certificate of Analysis for Imports of Regulated Substances

To aid in the review and monitoring of imports of HFCs, EPA proposed requiring that certificates of analysis records accompany all imports of regulated substances. A certificate of analysis provides a record that the applicable sampling and testing methodology has been used to verify the composition. Under the proposal, certificates of analysis would include documentation of the sampling and testing that is used to verify the composition of bulk regulated substance(s) offered for sale or distribution.

One commenter supported the proposed requirement that certificates of analysis accompany all imports, but suggested that this be electronically connected to the shipment, such as through an ACE document submission, instead of physically accompanying the shipment. Several commenters agreed that certificates of analysis are typically provided to the importer along with other documents required to facilitate the import, but opposed the proposed requirement that certificates of analysis physically accompany imports due to concerns about how practical it would be to hold the certificate on the imported container and the fact that containers will be out of the importer's custody during transit.

EPA understands that importers are typically in possession of certificates of analysis and did not expect the proposed requirement to change current practices. The Agency appreciates that there may be situations where the certificate of analysis is not available physically with the shipment, but sees a value in ensuring ready access to documentation available for inspection to verify the identity, composition, and necessary allowance expenditure for the import of regulated substances. In light of the comments received, the Agency agrees that the identified goals can be achieved either by the certificate of analysis physically accompanying the import or by having the documentation electronically connected to the shipment.

Several commenters also stated, without supporting information, that it is not practical to require certificates of analyses for the import of heels. EPA understands that business practices may not entail retesting residual amounts of regulated substances remaining in containers after most of the regulated substances have been transferred out of the container or otherwise used and prior to import of the cylinder with its remaining heel content, and that the heel may reasonably be expected to be tested at further transfer or processing steps. However, the Agency sees benefits in verifying the composition of all regulated substances imported, particularly in the case of heels where EPA has particular concerns about potential for illegal or misrepresented imports. As discussed in the Framework Rule, (86 FR 55178–55179) a goal of these labeling and testing requirements is to deter illegal activity and promote accurate and clear labeling, while also simplifying the process for EPA, in coordination with CBP for imports, to deduct a sufficient number of allowances at the point of import. This also reduces the safety risk of shipping and storing unlabeled cylinders and the potential to damage equipment resulting in the release of refrigerant and harm to the environment. Requiring limited labeling and testing requirements to verify material produced, imported, and sold matches the label supports EPA's efforts to confirm the contents of the container and thereby maintain the integrity of Allowance Allocation program by assuring the appropriate number of allowances are deducted for production and consumption of HFCs. In response to the commenters' concerns, the Agency notes that a certificate of analysis which certifies the content of regulated substances used to fill the container is acceptable to

document the composition of the remaining heel content if there is a reasonable expectation that the information in the certificate of analysis is still valid and applicable to the container's heel. A certificate of analysis is effective whether the regulated substances originated in the United States or internationally, but regardless must meet the requirements specified at 40 CFR 84.3 "Certificate of Analysis." Commenters did not provide any specific reasons why this requirement would be incompatible with business practices. For the reasons described above in this paragraph, EPA is not excepting imports of heels from the general requirement to include a certificate of analysis.

EPA also took comment on whether to require that the sampling and testing conducted prior to import that provides the associated certificate of analysis must be conducted by a laboratory accredited under ISO 17025. One commenter stated that the requirement that the certificate of analysis be provided by a laboratory accredited under ISO 17025 would be particularly burdensome and was unnecessary due to existing auditing and verification requirements.

Considering commenter input, EPA established requirements (as discussed in section VII.D of this preamble) that sampling and testing under 40 CFR 84.5(i)(2) and 40 CFR 84.5(i)(3) must be conducted by laboratories accredited to ISO/IEC 17025:2017(E), certified under the AHRI Refrigerant Testing Laboratory Certification Program, or recognized by OSHA's Nationally Recognized Testing Laboratory program. EPA is also providing until October 1, 2024, to comply with this requirement, so laboratories testing regulated substances in the United States or abroad have sufficient time to become accredited or certified. The Agency believes that these accreditation or certification requirements as finalized do not result in an undue compliance burden on the importer. Further, the commenter did not specify how existing auditing and verification requirements are sufficient to ensure compliance, and EPA does not see how these existing requirements would verify the contents of imported containers of regulated substances. Certificates of analysis contain information concerning import contents and sampling and testing methodology beyond that of existing auditing and verification requirements. Accreditation or certification requirements for laboratories that prepare these certificates of analysis provide additional safeguards to ensure that sampling and testing follow good

laboratory practices. Therefore, EPA is finalizing requirements that sampling and testing to provide a certification of analysis must meet the same certification or accreditation requirements as all sampling and testing under 40 CFR 84.5(i)(3).

Accordingly, after considering the comments on this issue, EPA is finalizing requirements that the certificate of analysis physically accompany the import or be submitted electronically to the Agency by loading an image of the document to the Document Image System, such as is required for non-objection notices under 40 CFR 84.25 and transshipments under 40 CFR 84.31(c)(3), at the same time as the advance notice required under 40 CFR 84.31(c)(7). This requirement will provide EPA additional information to confirm the number of allowances that need to be expended at the time of import.

VIII. What other revisions is EPA finalizing?

In addition to what is outlined in the prior sections, after considering public comments EPA is finalizing a number of additional proposed regulatory changes based on both lessons learned and current practices that have proved useful in implementing the HFC phasedown.

A. Define the Term "Expend"

Under the AIM Act and EPA's implementation of the HFC phasedown, a person must expend allowances to produce or import regulated substances outside of limited exceptions. In the Allocation Framework Rule, EPA did not codify a regulatory definition of "expend" in 40 CFR 84.3. EPA proposed to amend 40 CFR 84.3 to include a definition of expend, specifically to define expend to mean to subtract the number of allowances required for the production or import of regulated substances under 40 CFR part 84 from a person's unexpended allowances. In section V.A of this preamble we are codifying the point in time that determines when calendar year allowances are expended and in section V.B of this preamble we are codifying that importers of record must expend allowances. EPA is finalizing the addition of a regulatory definition of "expend" as proposed to accompany these regulatory revisions to provide additional specificity on how parties are required to implement these requirements.

One commenter sought clarity on how this definition of expend applies to application-specific allowance holders. The commenter stated that the proposed

definition refers only to the production or import of regulated substances and does not explain how it relates to the conferral and expenditure of allowances for application-specific allowance holders. The commenter requested that EPA clearly state if this definition applies to application-specific allowance holders and if it does, how would it apply. Under the Allocation Framework Rule, entities that are allocated application-specific allowances have the ability to use those allowances to import bulk regulated substances directly or to confer their application-specific allowances to others to enable those others to import or produce regulated substances for use in the specified application. If an entity that is allocated application-specific allowances imports bulk regulated substances directly, the entity must expend allowances to cover that import. In such an instance, the requirement to expend allowances, and the accompanying definition of “expend,” would apply to the application-specific allowance holder. If an entity allocated application-specific allowances confers those allowances to another entity to produce or import regulated substances on their behalf, that other entity that received the conferral would expend the allowances as needed for the import and production.

B. Modify Labeling Requirements

Under the Allocation Framework Rule, EPA codified labeling requirements in 40 CFR 84.5(i)(1) to require a person who is selling, distributing, offering for sale or distribution or importing containers containing a regulated substance that the container include “a label or other permanent markings stating the common name(s), chemical name(s), or ASHRAE designation of the regulated substance(s) or blend contained within, and the percentages of the regulated substances if a blend.” EPA proposed several revisions to this regulatory text. First, EPA proposed revising 40 CFR 84.5(i)(1) to require a “permanent label” in place of “a label or other permanent marking.” Among other things, EPA solicited comment on any implementation challenges associated with requiring a “permanent label.”

EPA received several comments that strongly opposed the proposed revision from “a label or other permanent markings” to “permanent label” for several reasons, including the challenges associated with requiring a permanent label when paired with EPA’s separate requirements, which were not reopened in this rulemaking, regarding refillable cylinders.

Commenters explained that in such a situation affixing a permanent label for a particular regulated substance would limit the use of the container and an entity would no longer be able to use containers interchangeably (e.g., they switch the type of HFC or HFC blend that they put into a cylinder once it is returned). Two commenters were also uncertain how such a requirement would be implemented and sought clarification with more details on the implementation of a permanent label. Two other commenters also asked that EPA provide further clarification on the impact the proposed revision will have on the market because certain containers would be removed from regular circulation effecting how returned containers are processed and reused which is independent of the return and demand rate of each product. After reviewing public comments filed and considering the points made by the commenters, EPA is not finalizing this proposed amendment and will leave the existing text in 40 CFR 84.5(i)(1) requiring “a label or other permanent marking.” EPA does note that in addition to the requirements in 40 CFR part 84, regulated parties are also required to follow all other applicable Federal regulations, including those from the Department of Transportation in 49 CFR part 172. EPA also proposed to add more detail and specificity on the regulatory labeling requirements. With slight revisions, EPA proposed to make changes to 40 CFR 84.5(i)(1) to include the following features such that all labels or other permanent markings must be:

- Durable and printed or otherwise labeled on, or affixed to, the external surface of the bulk HFC container;
- Readily visible and legible;
- Able to withstand open weather exposure without a substantial reduction in visibility or legibility;
- Displayed on a background of contrasting color; and
- If a container of regulated substances is contained within a box or other overpack, the exterior packaging must contain legible and visible information of what regulated substance is contained within.

One commenter made a general claim that EPA’s proposal “would impose labeling obligations above and beyond existing requirements,” that any benefit of the proposal “would appear to be minimal,” that EPA does not cite to a particular problem the Agency is trying to solve, and that EPA should instead rely on existing regulations under OSHA and the Department of Transportation’s Pipeline and Hazardous Materials Safety

Administration. The commenter does not provide any specific concerns or engage with EPA’s proposal in any particularity. EPA is finalizing these regulatory additions as proposed. EPA proposed these additional requirements to ensure that labels could be readily viewed, read, and understood as containers of regulated substances move across US borders and through commerce and those benefits are inherent in the form of the proposed requirements. All of the additional requirements relate to making the labels easier to view, which in turn will aid compliance and enforcement officers to identify potentially violative or fraudulent goods. These revisions are intended to help ensure that all containers of regulated substances would have labeling that is easily visible and legible and would contain information that is necessary for inspection and enforcement, as appropriate. As outlined in detail in the Allocation Framework Rule, the Agency has significant concerns about the potential for and impact of illegal trade in regulated substances. This concern is particularly heightened at the start of a new phasedown step. The requirements of the HFC phasedown are implemented at a variety of locations, including at border entries and industrial facilities. As a result, EPA relies on a diverse array of law enforcement officials to aid in compliance efforts related to the 40 CFR part 84 requirements. Without appropriate labeling, containers of regulated substances may not be readily distinguishable from containers of other products. These provisions are intended to facilitate inspections by providing durable labels that clearly identify contents.

EPA proposed as a complementary measure to add prohibitions at 40 CFR 84.5(i)(2) that no one other than the importer of record may repackage or relabel regulated substances that were initially unlabeled or mislabeled. EPA proposed to change the prior text, which applies to importers, to allow only the importer of record to undertake these actions. Additionally, the prior regulatory text did not preclude relabeling; it only precluded repackaging, but the regulatory text is intended to apply to regulated substances that were “initially mislabeled or unlabeled.” EPA received no adverse comments on these issues and is finalizing these regulatory amendments as proposed for the reasons outlined in the proposal.

C. Clarify Ability To Move Allowances Among Companies With Certain Affiliation Without a Transfer

EPA made clear in the Allocation Framework Rule that in calculating the quantity of allowances to allocate, “for purposes of determining the quantity of past imports, EPA is treating all companies majority owned and/or controlled by the same individual(s) as a single company, even if there is no corporate parent” (86 FR 55145). EPA also considers all parent,⁴⁴ subsidiary,⁴⁵ sister,⁴⁶ and commonly owned⁴⁷ companies together in determining past imports. Complementarily, it is EPA’s longstanding practice that allowances can be expended by parents, subsidiaries, sister, or commonly owned companies without a transfer. EPA proposed to revise the regulatory text at 40 CFR 84.19(a) to codify this practice for additional clarity for allowance holders.

EPA invited comments on potential negative implications of this proposal and on whether the proposed revisions to the text adequately capture the appropriate entities. EPA did not receive comment on this proposal or these issues and is finalizing the revision to 40 CFR 84.19(a) as proposed that allowances can be expended by parents, subsidiaries, sister, or commonly owned companies without a transfer. Given that EPA considers historic activity together for these companies in determining a single quantity of allowances to allocate, it is appropriate to allow companies in this situation to expend from the single pool of allowances through different arms of its corporate chain. Therefore, it seems inappropriate to require a transfer, including a petition to the Agency and a transfer offset, when EPA considers these commonly owned companies as a single entity for purposes of calculating and allocating allowances.

D. Revise Required Elements To Request Additional Consumption Allowances

In the Allocation Framework Rule EPA created a process, known as a

⁴⁴ In referring to a parent, EPA means a company that has a majority, *i.e.* at least fifty percent, stake in another company.

⁴⁵ In referring to a subsidiary, EPA means a company that is majority, *i.e.* at least fifty percent, owned by another company.

⁴⁶ In referring to a sister company, EPA means an entity related to another entity by a shared corporation with majority ownership.

⁴⁷ In referring to a commonly owned company, EPA means a company that is related to another company by a shared individual owner or owners, where there is at least (1) a single individual that owns 30 percent or more of each company or (2) individuals with direct family relationships (parent, child, sibling, or spouse) that own a majority of each company.

RACA, by which a person may obtain consumption allowances equivalent to the quantity of regulated substances exported by that person (40 CFR 84.17). Through implementation of the existing regulations, EPA has learned that its review of RACAs could be more efficient if exporters provided additional information with their initial RACA requests, resulting in faster reviews by EPA and responses to exporters. We expect the additional information to also decrease the need for follow up requests to exporters to verify the reported information. EPA proposed to require that RACA applicants submit the following additional data points: (1) ITNs for all shipments regardless of monetary value, destination country, or other characteristics that could otherwise exempt or preclude an exporting entity from obtaining an ITN, (2) conveyance names, (3) IMOs of the vessel(s) carrying the export, as applicable and (4) container numbers (*e.g.*, ISO tank numbers). EPA requested comment on whether there are any additional data points that would aid the Agency in quickly verifying the information provided in a RACA application, including but not limited to customs release documents from the country receiving the exports and proof of receipt at the final destination. EPA also requested comment on whether any entity that may apply for a RACA would have difficulty gathering and submitting the additional data points proposed. EPA also sought comment on whether the Agency should require the reporting of certain EEI, which are data that must be filed through the Automated Export System (AES), to aid in EPA’s review of RACAs to verify export data more generally similar to those required under 40 CFR 84.31(c)(7).

Several commenters were opposed to EPA’s proposal to add additional required elements for RACA applications. Commenters claimed that requiring additional data points as part of RACA applications would be unnecessary and burdensome. In addition, one commenter noted that it may be difficult for an exporter to obtain additional data as they would have to rely on third parties who may not be motivated to provide such information. One commenter noted that the information on the ITN is comprehensive and should be sufficient to enable EPA review when paired with already required export documents. One commenter noted that EPA has been able to process RACAs with the information required under the

Allocation Framework Rule, so it is unclear why additional data is needed.

In this final rule, EPA is revising the regulation to require, as part of an application for RACAs, ITNs for all shipments regardless of monetary value, destination country, or other characteristics that could otherwise exempt or preclude an exporting entity from obtaining an ITN. EPA is also finalizing a requirement that exporters provide all international export declaration documentation, *i.e.*, EEI, which is electronically filed within AES. EPA is not finalizing the proposal with respect to, and therefore will not be requiring, conveyance names, IMOs of the vessel(s) carrying the export, and container numbers. EPA is finalizing these additional information requirements to enable the Agency to more quickly locate exports and review RACA applications expeditiously. Through implementation of the existing 40 CFR 84.17 regulations, we learned review of RACAs could be more efficient if exporters provided additional information with their RACA requests. An ITN is received as confirmation that the EEI has been accepted in the AES. If there are multiple containers, the EEI should list containers and the net weight associated with the ITN. Having these additional data elements will enable EPA to validate reported exports against the AES. Because the corresponding AES shipment record merely validates and records the data provided as-is and may not capture data associated with the final export, EPA may request additional verification if there are discrepancies in the requested RACA amounts when compared to the AES shipment record or final export data available to EPA and CBP. RACAs may be granted only for the amounts of verified exports of bulk regulated substances.

One commenter recommended that EPA revise the existing requirement at 40 CFR 84.17(a)(8) that the exporter must submit the bill of lading as part of a request for consumption allowances for fire suppressant manufacturers or for individual bulk tanks containing less than 1,500 pounds of regulated substances. The commenter stated that in lieu of requiring the bill of lading, the Agency should accept the AES filing document and the OEM’s shipping letter of instruction. The commenter argued that for fire suppressant manufacturers, the bill of lading does not always designate the agent weight, but the AES filing contains the ITN, the export date, agent weight by HTS code and the destination country, which are easily cross referenced with the commercial

invoice and shipping letter of instruction and is binding by the fact it is a CBP submittal. EPA disagrees with the commenter's recommendation to exclude fire suppressant manufacturers or small shipments from the general requirements to submit the bill of lading as part of the RACA submittal. The Agency understands that in some cases the bill of lading may not include information such as the agent weight. In such cases entities may submit supplementary documentation that provides the necessary information, such as the AES filing document and the OEM's shipping letter of instruction. EPA reiterates that entities have an obligation to include in their RACA submittal all required information to the Agency.

In the proposal, EPA also noted that it was considering amending the regulations to require that exporters provide documentation to verify an allowance was expended when the regulated substance being exported was produced or imported, though the RACA requirements finalized in the Allocation Framework Rule allow an entity to receive a refund on allowances for an export regardless of when the HFC was initially produced or imported. One commenter opposed this concept, but also requested that if this were to be finalized, EPA allow an entity to designate a year of production if regulated substances produced in different years are comingled into a large tank, vessel, or sphere, so long as the producer keeps clear and contemporaneous records. EPA is not finalizing a requirement that allowances be expended for the production or import of regulated substances in order for export of those substances to be eligible to receive RACAs.

Some commenters request that EPA revise its regulations such that allowances granted through a RACA could be used in a subsequent calendar year. One commenter noted that because of long lead times for foreign suppliers and shipping, it is difficult to apply for and obtain RACAs, and then import with allowances provided by the RACA all in one year. As noted in the prior paragraph, EPA is not requiring allowances be expended for regulated substances in order for export of those substances to be eligible to receive RACAs. Therefore, RACAs do not have to be obtained in the same year a regulated substance is produced or imported. However, EPA did not propose changes to the provision that EPA will allocate allowances through a RACA for the same calendar year in which an export occurred. Therefore, this comment is outside the scope of

this rulemaking. However, if EPA were to consider the comment, the Agency disagrees with the change recommended by the commenter. EPA is maintaining the requirement that both the export and the RACA occur in the same calendar year and that any refunded allowances must also be expended in that same calendar year. This is necessary to ensure that the statutorily defined production and consumption reduction targets are met each calendar year.

One commenter requested that EPA modify the RACA application to allow for reporting exports of blends (*e.g.*, R-407C, R-410A) rather than requiring listing of HFC blend components. The commenter's request relates to how EPA has structured its form and not directly to regulatory requirements. EPA intends to make the change requested by the commenter on the RACA application form, and this alteration has been reflected in the updated ICR associated with this rule. If EPA grants a RACA request for export of a regulated substance blend, the amount of allowances refunded continues to be based on the regulated substance components of the blend, and not the blend as a whole.

One commenter requested that the exporter be authorized to request additional allowances for any person that had originally supplied the allowances expended to produce or import the exported material or, alternatively, an exporter could be authorized to designate *any* person as the recipient. The commenter argued that such flexibility would let the persons involved in production or importation followed by export to decide among themselves by contract how to handle allowances. EPA considers this comment to be outside the scope of this rulemaking since EPA did not propose any changes to the current regulation at 40 CFR 84.17(b)(1)(ii), that provides additional consumption allowances can go to the producer, importer, or exporter. If any entity receiving allowances through a RACA wants the allowances to go to a different entity, the allowances can be transferred pursuant to 40 CFR 84.19.

E. Considered Petitions To Import Regulated Substances for Laboratory Testing With Eventual Destruction

In reviewing import activity, EPA learned that some entities may import small amounts of regulated substances for laboratory testing to determine the type and amount of any impurities in the United States, after which point the substances are destroyed. The current regulations require allowances to be expended in these instances. In most

situations, the regulated substances are virgin material, but may not meet the exact specifications required by the producer or for the intended applications. Even if these regulated substances could be considered used, there are no provisions in the current regulations to allow for an intermediary step (such as laboratory testing) prior to destruction without expending allowances.

Based on information available at the time of proposal, EPA did not consider laboratory testing of regulated substances that are ultimately bound for destruction as meriting an exemption from expending allowances, but EPA solicited comment on whether a petition process like that in 40 CFR 84.25(b) would be appropriate and necessary, and on the number of entities that would potentially make use of a petition process as well as the frequency and quantity of such imports. EPA stated in the proposal that the Agency would consider finalizing a petition process if compelling comments were received demonstrating that these tests cannot be performed in the countries of use or that the scope of these activities warrant a regulatory petition process. EPA noted at proposal that the frequency, quantity, and number of potentially affected entities were not fully known, though the Agency did not believe that that they were of sufficient scale to necessitate a regulatory petition process for the entities to be exempt from expending allowances.

EPA received two comments in support of such a petition process. Both commenters focused on marine applications of regulated substances, where commenters noted it can be difficult to test within a country of origin. One commenter requested that EPA allow the import of regulated substances for laboratory testing without the requirement of a petition to EPA and without a limit to keep the sample size below a certain numeric level. The other commenter requested that EPA provide an exemption or blanket permitting system that could be utilized by shipping lines to facilitate the import of a test sample of 0.5kgs or less per sample, but that after testing the regulated substance be reclaimed, not destroyed. Both commenters noted that a petition process could be beneficial, but provided little to no rationale as to why imports to conduct laboratory sampling needed to proceed without expenditure of allowances. One commenter's suggestion to not require samples to be destroyed, but rather reclaimed, following laboratory testing appears directly counter to the AIM Act. The calculation of consumption

subtracts out destruction, and therefore subsequent destruction of an imported regulated substance would result in net zero consumption if the import and destruction occur in the same calendar year. However, if a regulated substance was imported without expenditure of consumption allowances and not subsequently destroyed, those regulated substances would count toward consumption, but would not be accounted for in EPA's allowance system, and therefore would be in excess of the consumption cap established by Congress. Moving beyond this particular argument, neither commenter provided compelling reasons as to why EPA should create a unique exemption pathway for regulated substances brought in for laboratory sampling. The commenters have not provided a sufficient case to overcome the skepticism EPA noted at proposal. Therefore, EPA is not establishing such a petition process in this final rule.

IX. What are the costs and benefits of this action?

In the Allocation Framework Rule, EPA conducted a Regulatory Impact Analysis (RIA) which estimated the costs and benefits of the phasedown of HFCs directed by the AIM Act, as implemented through the Allocation Framework Rule. That RIA estimated benefits and costs for the HFC phasedown between 2022 and 2050, including assuming for analytical purposes that the allocation system would continue unchanged for years past the initial period (*i.e.*, for 2024 and beyond). This final rule continues the use of an allocation methodology that is substantially similar to the Allocation Framework Rule and this action will not result in any significant changes to the phasedown program as a whole, and thus does not fundamentally change the assumptions made in the Allocation Framework Rule RIA.

Therefore, for this action EPA is updating the Allocation Framework Rule RIA via an RIA addendum, and as described below. EPA is not conducting a new RIA because the Allocation Framework Rule already analyzed estimated benefits and costs over the time period covered by this rule. As described in this preamble, we are adjusting the consumption baseline, revising particular recordkeeping and reporting requirements, and carrying out other limited revisions to the existing regulations. These revisions would generally apply starting in 2024. In this section we discuss two discrete changes to the analysis of benefits and costs as presented in the RIA for the Allocation

Framework Rule. First, we are providing an analysis of the incremental change in benefits and costs associated with the adjustment to the consumption baseline from 2024 through 2050 relative to the benefits and costs estimate for the same time period as estimated in the supporting analysis for the Allocation Framework Rule. Separately, we have adjusted estimated costs associated with the HFC phasedown from 2024 through 2050 due to updating assumptions for an abatement option used in the analysis.

This analysis is intended to provide the public with updated information on the relevant costs and benefits of this action and to comply with Executive Orders. The analysis does not form a basis or rationale for any of the actions EPA is implementing in this rulemaking. The Allocation Framework Rule, its RIA, and supporting documentation provide more detail on our analysis methodology of the costs and benefits of the HFC phasedown between 2022 and 2050, and are available in the docket for this action (Docket ID No. EPA-HQ-OAR-2022-0430). More information on the analysis for this action is available in an addendum to the Allocation Framework Rule's RIA in the docket for this action.

As discussed in section IV of this preamble and a memorandum titled, "*Docket Memo on Revisions to HFC Baseline*," available in the docket for this rulemaking, this rule reduces the consumption baseline by 1.35 MMTEVe (approximately 0.44 percent) relative to the baseline codified in the Allocation Framework Rule at 40 CFR 84.7(b)(2). With a lower consumption baseline, more abatement will be necessary in each year starting in 2024 to reduce HFC consumption from its business-as-usual level to a level below the maximum allowed consumption. However, for the years 2029 through 2050, the abatement options modeled in the original Allocation Framework Rule RIA using the higher baseline had already sufficiently lowered consumption below the level required through the updates made in this rulemaking. As a result, no additional abatement options are needed in these years and no incremental costs are accrued. More detail is provided in the RIA addendum for this rule.

Reducing the consumption of HFCs reduces the emissions of HFCs, although the time profile of emissions reduction can vary depending on the application the HFCs are used in. For example, reducing HFCs used in aerosols may result in the avoidance of a more near-term emissions release (assuming the product would be used in the same

year) while other types of equipment and products (*e.g.*, AC units) typically emit HFCs more gradually over time. Taking these dynamics into account, EPA's Vintaging Model is used to calculate consumption and emissions of HFCs under a "business-as-usual" forecast and an alternative scenario in which the AIM Act allowance allocation phasedowns are in effect and abatement options are undertaken. The delta between these two scenarios results in the estimated reduction in consumption and emissions of HFCs in each year resulting from this rule.

Based on this approach, EPA estimates that the lowering of the HFC baseline would reduce total HFC consumption by additional 6.34 MMTEVe and would reduce HFC emissions by an additional 0.05 MMTEVe relative to the previous estimate from the Allocation Framework Rule, for the period of 2024–2050. By multiplying the change in emissions of each HFC in each year by the social cost of HFCs for that HFC for that year, the monetary value of the climate benefits of the emissions reduction can be estimated. From 2024 through 2050 at a discount rate of 3 percent in 2020 dollars, this baseline adjustment results in incremental climate benefits of \$2.9 million, costs of \$175 million, and a net cost of \$172.1 million. These reductions in HFC emissions and associated climate benefits are all attributable to the baseline adjustment.

As detailed in section VI and portions of other sections of this preamble, EPA is also finalizing in this rulemaking a number of updates to the recordkeeping and reporting requirements originally established in the Allocation Framework Rule. While some of these updates represent clarifications of the existing requirements, others represent additional requirements that impact the total anticipated compliance costs of this rule. The Agency notes that general testing requirements were already established under the Allocation Framework Rule. EPA expects that flexibilities offered in this action to accommodate existing credential and testing practices will result in negligible additional costs. Specific amendments resulting in additional anticipated cost burden include the annual importer of record reporting requirements and the maintenance of sampling/testing records. As a result of these updates, EPA estimates that, starting in 2024, recordkeeping and reporting costs will increase by approximately \$370,570 annually relative to the previous estimates from the Allocation Framework Rule.

Taking into account both the baseline adjustment and the updated recordkeeping and reporting costs, EPA estimates the incremental cost of this rule to be \$344 million from 2024 through 2050 (in 2020 dollars, using a discount rate of 3 percent). Relative to the value of cumulative net benefits for the HFC Allocation Program between 2022 and 2050 that was originally calculated in the RIA for the Allocation Framework Rule, this increase represents a 0.1 percent decrease in cumulative net benefits. Although EPA is using the social costs of HFCs for purposes of this analysis, this action does not rely on the estimates of these costs as a record basis for the Agency action, and EPA would take the same final action even in the absence of the social costs of HFCs.

EPA also updated an abatement option used in the analysis to reflect the most recently available information. Specifically, the previous analysis assumed that some consumption of HFC-134a could be abated by transitioning the foam-blowing agent used to produce extruded polystyrene (XPS) boardstock foam. If XPS foam producers shifted from using a combination of HFC-134a and CO₂ to a mixture of liquid carbon dioxide (LCD) and alcohol, all of the HFC consumption associated with producing XPS foam could be avoided. However, prior to this rulemaking EPA received comment from two foam manufacturers that the abatement option of using LCD/alcohol has not been proven to meet the safety and performance standards required in the United States and would not be a viable option. While the LCD/alcohol technology is successfully used in other countries, we understand that U.S. companies expect XPS foam production to transition from using HFC-134a/CO₂ to blends containing a hydrochlorofluoroolefin and/or an HFO. This revision of an abatement option did not result in any changes to the emissions or benefits, because these options are applied to reduce consumption to the respective phasedown step. The updated assumption resulted in a cost increase of \$2.7 billion from 2024–2050 at a 3 percent discount rate relative to the prior estimate provided with the Allocation Framework Rule RIA. The effect is slightly less than a 1 percent change in the estimated net benefit of the HFC phasedown in 2022–2050. This revision solely reflects a change in assumptions. It is not the result of a regulatory change and does not reflect a change in costs from actions finalized in this rule.

EPA received two comments stating that the Agency did not support assumptions made in the analysis of costs and benefits associated with the proposed rulemaking, particularly noting burdens imposed due to proposed same day documentation requirements and recordkeeping and reporting requirements for small businesses. Another commenter questioned whether EPA had fully analyzed the burdens associated with the proposed same day documentation of allowance expenditures, stated that the Agency did not document the associated burden. The same commenter stated that EPA was incorrect in its assumption in the economic impact screening analysis that small businesses were not expected to experience any additional compliance or administrative costs due to proposed recordkeeping and reporting changes. The commenter did not cite any particular costs that may be incurred by small businesses, but noted generally that the Agency proposed new recordkeeping and reporting requirements.

EPA is not finalizing the proposed same day documentation requirements and there will be no associated costs. Accordingly, in the RIA addendum included in the docket for this action the Agency does not assess potential costs of such a requirement. In response to comments, EPA acknowledges that there are minor additional costs associated with the revised recordkeeping and reporting changes which were not accounted for in this rulemaking's proposal, *i.e.*, as discussed earlier in this section, the annual importer of record reporting requirements and the maintenance of sampling/testing records. In this action the Agency analyzed and incorporated those costs of \$370,570 into the RIA addendum and economic screening analysis.

Another commenter stated that the economic screening analysis did not support its assumption that additional HFC could be purchased at a 10 percent premium if entities had not received sufficient allowances for their operational needs. The commenter further stated that in its screening analysis the Agency did not assess availability and pricing of domestic HFC supply (whether virgin or reclaimed), consumer acceptability, supply chain disruptions, and equipment compatibility together as related factors.

EPA disagrees with the assertion that its modeling assumption of HFC pricing was unsupported and that its analysis did not consider related factors in its assessment of potential economic impacts. The Agency notes its

discussion of these issues in the screening analysis. Based on past experience with the ODS phaseout, the Agency understands its assumptions to be reasonable. Anecdotal feedback indicates that HFC prices increased in 2021 and 2022 based on a number of factors, including supply chain disruptions, a global pandemic, antidumping duties and other tariffs, passage of the AIM Act, and the Allocation Framework Rule. However, in its analysis EPA used the independent price information available to the Agency. EPA also explained that transitioning to substitutes, increased recovery, reclamation, leak reduction, and prior inventory in combination support the assumption that sufficient domestic supply of HFCs will be available for entities to meet demand without significant price increases. This assumption is based on estimates of refrigerant available for recovery and reclamation from EPA's Vintaging Model,⁴⁸ actual reclamation amounts reported to EPA,⁴⁹ and a review of the available servicing tail from previous EPA rulemakings related to the HCFC Allocation System. Additionally, consistent with the ODS phaseout, we expect that inventory built prior to 2022 (and to a lesser extent in 2022 and 2023) will also be a source of HFCs for the market in 2024 and later years. The commenter did not explain the relevance of consumer acceptability as a related factor. EPA is unaware of a reason that HFCs or HFC substitutes would be unacceptable to consumers. The Agency also notes that, unlike the chemical-specific allocation system for HCFCs during the ODS phaseout, EPA is issuing allowances on an exchange value-weighted basis through the HFC phasedown program. This, in combination with opportunities described above in this paragraph to transition to substitutes, increase recovery, reclaim, reduce leaks, and use prior inventory, provides flexibility for entities to manage potential issues with equipment computability. While the Agency's past experience phasing out ODS did not show a clear correlation between reduction in allocations and price in these markets, and EPA acknowledges that there may be differences in market responses between the ODS phaseout and HFC phasedown, EPA conservatively used a 10 percent

⁴⁸ U.S. Environmental Protection Agency (EPA). 2022b. Vintaging Model. Version VM IO file_v5.1_03.23.22.

⁴⁹ U.S. Environmental Protection Agency (EPA). 2020. Summary of Refrigerant Reclamation Trends. July 2020. Available online at: <https://www.epa.gov/section608/summary-refrigerant-reclamation-trends>.

increase in domestically sourced HFCs relative to the current price to model potential impacts on small businesses.

For informational purposes, considering the incremental change to the consumption baseline associated with this rule, updates to recordkeeping and reporting costs, and the separate update to the analytical model described further in the addendum in the docket for this rulemaking, the present value of cumulative net benefits for the HFC Allocation Program between 2022 and 2050 is now estimated to be \$269.9 billion.

X. How is EPA considering environmental justice?

As part of the RIA addendum for the proposed rulemaking, EPA updated the environmental justice analysis that was previously conducted for the Allocation Framework Rule. The updated environmental justice analysis used the same analytical approach used previously, along with updated data on cancer and respiratory risks. The analysis also included the addition of another facility that reported HFC production and reviewed TRI data for 2020 and 2021.

Executive Order 12898 (59 FR 7629, February 16, 1994) and Executive Order 14008 (86 FR 7619, January 27, 2021) establish Federal executive policy on environmental justice. Executive Order 14096, signed April 21, 2023, builds on the prior Executive Orders to further advance environmental justice (88 FR 25251).

Executive Order 12898's main provision directs Federal agencies, to the greatest extent practicable and permitted by law, to make environmental justice part of their mission by identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of their programs, policies, and activities on people of color and low-income populations in the United States. EPA defines environmental justice as the fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies.⁵⁰ Meaningful involvement means that: (1) Potentially affected populations have an appropriate opportunity to participate in decisions about a proposed activity that will affect their environment and/or health; (2) the public's

contribution can influence the regulatory Agency's decision; (3) the concerns of all participants involved will be considered in the decision-making process; and (4) the rule-writers and decision-makers seek out and facilitate the involvement of those potentially affected.⁵¹ The term "disproportionate impacts" refers to differences in impacts or risks that are extensive enough that they may merit Agency action. In general, the determination of whether there is a disproportionate impact that may merit Agency action is ultimately a policy judgment which, while informed by analysis, is the responsibility of the decision-maker. The terms "difference" or "differential" indicate an analytically discernible distinction in impacts or risks across population groups. It is the role of the analyst to assess and present differences in anticipated impacts across population groups of concern for both the baseline and proposed regulatory options, using the best available information (both quantitative and qualitative) to inform the decision-maker and the public.⁵²

A regulatory action may involve potential environmental justice concerns if it could: (1) create new disproportionate impacts on people of color, low-income populations, and/or indigenous peoples; (2) exacerbate existing disproportionate impacts on people of color, low-income populations, and/or indigenous peoples; or (3) present opportunities to address existing disproportionate impacts on people of color, low-income populations, and/or indigenous peoples through the action under development.

Executive Order 14008 calls on agencies to make achieving environmental justice part of their missions "by developing programs, policies, and activities to address the disproportionately high and adverse human health, environmental, climate-related and other cumulative impacts on disadvantaged communities, as well as the accompanying economic challenges of such impacts." Executive Order 14008 further declares a policy "to

secure environmental justice and spur economic opportunity for disadvantaged communities that have been historically marginalized and overburdened by pollution and under-investment in housing, transportation, water and wastewater infrastructure, and health care." In addition, the Presidential Memorandum on Modernizing Regulatory Review calls for procedures to "take into account the distributional consequences of regulations, including as part of a quantitative or qualitative analysis of the costs and benefits of regulations, to ensure that regulatory initiatives appropriately benefit, and do not inappropriately burden disadvantaged, vulnerable, or marginalized communities" (86 FR 7223, January 26, 2021). EPA also released its June 2016 "Technical Guidance for Assessing Environmental Justice in Regulatory Analysis" (2016 Technical Guidance) to provide recommendations that encourage analysts to conduct the highest quality analysis feasible, recognizing that data limitations, time and resource constraints, and analytic challenges will vary by media and circumstance.

In the Allocation Framework Rule, EPA established the baselines for the production and consumption of regulated substances, determined the quantity of allowances that would be available nationwide according to the AIM Act's phasedown schedule, and created an allowance allocation and trading program. EPA also summarized the public health and welfare effects of GHG emissions (including HFCs), including findings that certain parts of the population may be especially vulnerable to climate change risks based on their characteristics or circumstances, including the poor, the elderly, the very young, those already in poor health, the disabled, those living alone, and/or indigenous populations dependent on one or limited resources due to factors including but not limited to geography, access, and mobility (86 FR 55124–55125). Potential impacts of climate change raise environmental justice issues. Low-income communities can be especially vulnerable to climate change impacts because they tend to have more limited capacity to bear the costs of adaptation and are more dependent on climate-sensitive resources such as local water and food supplies. In corollary, some communities of color, specifically populations defined jointly by both ethnic/racial characteristics and geographic location, may be uniquely vulnerable to climate change health impacts in the United States.

⁵⁰ See, e.g., "Environmental Justice," EPA, 4 March 2021, <https://www.epa.gov/environmentaljustice>.

⁵¹ The criteria for meaningful involvement are contained in EPA's May 2015 guidance document "Guidance on Considering Environmental Justice During the Development of an Action." EPA, 17 February, 2017, www.epa.gov/environmentaljustice/guidance-considering-environmental-justice-during-development-action.

⁵² The definitions and criteria for "disproportionate impacts," "difference," and "differential" are contained in EPA's June 2016 guidance document "Technical Guidance for Assessing Environmental Justice in Regulatory Analysis." EPA, https://www.epa.gov/sites/production/files/2016-06/documents/ejtg_5_6_16_v5.1.pdf.

EPA has not assessed climate-based impacts to communities that surround HFC production facilities for this rule or as part of the Allocation Framework Rule. The location of HFC production facilities has no significant bearing on the climate impacts that these communities will experience.

As detailed in the Allocation Framework Rule and its accompanying RIA, the phasedown of HFCs in the United States will achieve significant benefits associated with reducing climate change. However, as described in the RIA for the Allocation Framework Rule and in the RIA addendum for this rule, there continues to be significant uncertainty about how the phasedown of HFC production, the issuance of allowances, and market trends independent of this rulemaking could affect production of HFCs and HFC substitutes—and associated air pollution emissions—at individual facilities, particularly in communities that are disproportionately burdened by air pollution.

Characteristics of Communities Surrounding HFC Production Facilities

For the environmental justice analysis performed to support the Allocation Framework Rule, EPA reviewed the available evidence from the published literature and from community input on what factors may make population groups of concern more vulnerable to adverse effects (e.g., cumulative exposure from multiple stressors), including but not limited to the 2009 and 2016 Endangerment Findings and the reports from IPCC, the US Global Change Research Program, and the National Research Council. It was also important to evaluate the data and methods available for conducting an environmental justice analysis.

EPA's 2016 Technical Guidance does not prescribe or recommend a specific approach or methodology for conducting an environmental justice analysis, though a key consideration is consistency with the assumptions underlying other parts of the regulatory analysis when evaluating the baseline and regulatory options. Where applicable and practicable, the Agency's RIA examined certain metrics for an environmental justice analysis comprising more than just climate change effects, including: the proximity of entities receiving allowances to populations disaggregated by race and ethnicity, low-income populations, and/or indigenous peoples; the number of entities receiving allowances that may be adversely affecting population groups of concern; the nature, amounts, and location of regulated HFC production

facilities that may adversely affect population groups of concern; and potential exposure pathways associated with the production of the regulated HFCs or with chemicals used as feedstocks, catalysts, or byproducts of HFC production unique to particular populations (e.g., workers). The environmental justice analysis is described in the RIA for the Allocation Framework Rule and is based on public data from the TRI, GHGRP, EJSCREEN (an environmental justice mapping and screening tool developed by EPA), Enforcement and Compliance History Online, and Census data. In addition, the analysis integrated suggestions received during the public comment period to the extent possible. The environmental justice analysis also contains information on non-production releases (as defined by TRI), water releases, and offsite disposal for chemicals used in HFC production. The analysis of potential environmental justice concerns focused mainly on characterizing baseline emissions of air toxics that are also associated with chemical feedstock use for HFC production. As noted in the RIA for the Allocation Framework Rule, there is uncertainty around the role that HFC production plays in emissions of these air toxics. In addition, EPA conducted a proximity analysis to examine community characteristics within one and three miles of these facilities. The Agency also explored larger radii (5 and 10 miles) in response to public comments that releases from these facilities may travel longer distances.

The relatively small number of facilities directly affected by the proposed rulemaking enabled EPA to assemble a uniquely granular assessment of the characteristics of these facilities and the communities where they are located. The environmental justice analysis, which examines racial and economic demographic and health risk information, found heterogeneity in community characteristics around individual facilities. The analysis showed that the total baseline cancer risk and total respiratory risk from air toxics (not all of which are due to emissions from HFC production) varies, but is generally higher, and in some cases much higher, within 1 to 10 miles of an HFC production facility. The analysis also found that higher percentages of both low-income and Black or African American individuals live near several HFC production facilities compared with the appropriate national and state level average. EPA noted in the final rule for the Allocation

Framework Rule, and reiterates here, that it is not clear the extent to which these baseline risks are directly related to HFC production, but some feedstocks, catalysts, and byproducts are toxic (e.g., carbon tetrachloride, tetrachloroethylene, and trichloroethylene (TCE) and some are potentially carcinogenic. All HFC production facilities are near other industrial facilities that could contribute to the Air Toxics Screening Assessment (AirToxScreen) cumulative cancer and respiratory risk; the number of neighboring TRI facilities within one mile of an HFC production facility ranges from 1 to 13, within 3 miles there are 2 to 20 neighboring TRI facilities, within 5 miles there are 2 to 33 neighboring TRI facilities, and within 10 miles there are 6 to 67 neighboring TRI facilities.

It is not clear how emissions related to HFC production compare to other chemical production at the same or nearby facilities. Additionally, some HFC substitutes, such as HFOs, use the same chemicals as feedstocks in their production or release the same chemicals as byproducts, potentially raising concerns about local exposure. Emissions from production facilities manufacturing non-fluorinated substitutes (e.g., hydrocarbons and ammonia) could also be affected by the phasedown of HFCs. However, there is still limited information regarding how much of each substitute would be produced, which substitutes would be used, and what other factors might affect production and emissions at those locations, so it continues to be unclear to what extent this rule may affect baseline risks from HAP for communities. Further, the HFC phasedown schedule prescribed by Congress—with a 40 percent reduction by 2024, a 70 percent reduction by 2029, an 80 percent reduction by 2034 and an 85 percent reduction by 2036—may also reduce the potential for a facility to increase emissions above current levels for a prolonged period, if at all. EPA reiterates its commitment to continue monitoring the impacts of this program on HFC and substitute production, and emissions in neighboring communities, as we move forward to implement this rule.

As described in the proposed rulemaking, EPA updated the environmental justice analysis that was done as part of the Allocation Framework Rule. Not much time has elapsed since this rule was signed in September 2021, and the Agency still does not have enough data to determine how the implementation of the HFC phasedown may affect production and

emissions at facilities that produce HFCs and their substitutes. For this reason, EPA followed the analytical approach used in the Allocation Framework Rule RIA to provide updated data on the total number of TRI facilities near HFC production facilities and the cancer and respiratory risks to surrounding communities. This update included the use of the most recent data available for the AirToxScreen data set from 2019, replacing the 2014 National Air Toxics Assessment (NATA) data used in the previous analysis. Additionally, EPA updated the list of HFC production facilities as part of this analysis to include an additional ninth facility that reported production of HFCs in 2022. Finally, EPA has updated the list of toxic chemicals potentially used as a feedstock or catalyst or released as a byproduct of HFC production based on information reported to EPA under the Allocation Framework Rule (see 40 CFR 84.31(b)(1)).

In addition, EPA included a demonstration of a microsimulation approach to analyze the proximity of communities to potentially affected HFC production facilities. Microsimulation is a technique relying upon advanced statistics and data science to combine disparate survey and geospatial data. It has long been used in a variety of economic and social science research and has been used before by EPA (in the context of understanding the implications of underground storage tank impacts on groundwater). Recent advances in data science and computational power have increased the availability of microsimulation for applications such as environmental justice analysis. The demonstration analysis included in the RIA addendum contributes to understanding communities that may warrant further environmental justice analysis.

The updated environmental justice analysis found that for eight of the nine facilities identified as HFC producers, the demographic data are identical to that included in the Allocation Framework Rule RIA. The racial, ethnic, and income figures for the 8 communities within 1, 3, 5, and 10 miles of the respective facilities are drawn from the most recent American Communities Survey data from 2019. Using the updated 2019 AirToxScreen data, the total cancer risk and total respiratory risk generally decreased compared with the previous analysis for the communities surrounding several production facilities. Additionally, looking across the nine HFC production facilities, the risks from air emissions (not all of which necessarily stem from

HFC production), while varied, were still generally higher, and in some cases much higher, within one to three miles of an HFC production facility and compared with the overall national and state averages.

For the additional ninth facility, Islechem, the total cancer risk and total respiratory risk within 1 to 10 miles of the facility were similar to or lower than the risks based on the national and state average. The proportion of low-income and Black or African American and other communities of color were lower than the national and state averages and increased with increasing distance from this facility.

Characteristics of Communities Surrounding HFC Substitutes Production Facilities

As mentioned above in this section, emissions from facilities producing fluorinated and non-fluorinated substitutes may also be affected by the phasedown of HFCs. In the Technology Transitions rulemaking under the AIM Act (proposal at 87 FR 76838, December 15, 2022), EPA is conducting an environmental justice analysis to assess the potential impacts of that proposed rulemaking by examining the characteristics of communities near facilities producing HFC substitutes (e.g., hydrocarbons, CO₂, ammonia, HFOs) used in the sectors or subsectors addressed in the petitions.

With the restriction on use of certain HFCs, EPA anticipates that the production of HFC substitutes will increase. Accordingly, for the environmental justice analysis for the proposed Technology Transitions Rule, EPA identified 14 facilities producing predominant HFC substitutes that may be impacted by that rule and where production changes may impact nearby communities. Overall, the Technology Transitions Rule will reduce GHG emissions, which will benefit populations that may be especially vulnerable to damages associated with climate change. However, the manner in which producers transition from high-GWP HFCs could drive changes in future risk for communities living near facilities that produce HFC substitutes, to the extent the use of toxic feedstocks, byproducts, or catalysts changes, and those chemicals are released into the environment with adverse local effects.

The analysis for the proposed Technology Transitions Rule showed that a higher proportion of individuals identified as African American or Black and as Hispanic with respect to race live in proximity to the identified facilities compared with the national average or the rural areas national average.

Importantly, the comparison to the rural area national average is more striking, because so many of the facilities are rural. While median income is not significantly different for the communities near the facilities (slightly lower than the national average but slightly above or equal to the rural median income), there is a higher proportion of very low-income households in these communities. Additionally, total cancer risk and total respiratory risk is higher than either the rural national average or the overall national average in communities near the facilities. The analysis shows that the risks are higher for those within the 1-mile average radius and decrease at the 3-mile, 5-mile, and 10-mile radii.

EPA notes that the averages may obfuscate potentially large differences in the community characteristics surrounding individual production facilities. Analysis of the demographic characteristics and AirToxScreen data for the 14 identified facilities shows that there are significant differences in the communities near these facilities. The racial, ethnic, and income results are varied but, in almost all cases, total cancer risk and total respiratory risk are higher for the communities in proximity to the sites than to the appropriate (rural or overall) average when compared with the national or state results.

Additionally, some facilities are in communities that are quite different from the aggregate results discussed in this section above. The aggregate results show that the communities near the facilities tend to have a slightly lower proportion of neighboring individuals identified as White and a higher proportion identified as African American or Black and as Hispanic with respect to race, in several cases. In several cases, however, the communities near specific facilities have higher percentages of White individuals than either the state or national averages.

More information was provided in conjunction with that proposed rulemaking, and EPA intends to issue the final rule later this year.

EPA sought input on the environmental justice analysis contained in the RIA addendum for the proposed rulemaking for this action, as well as broader input on other health and environmental risks the Agency should assess. In the proposed rulemaking, EPA sought data or analysis to identify whether it is reasonable to expect net increases in emissions, and if so, how we might analytically isolate the impacts of this program (e.g., effects resulting from the phasedown itself, the trading of production allowances, or some other factor) that would enable the

Agency to conduct a more nuanced analysis of changes in releases associated with chemical feedstocks and byproducts for HFC substitutes, given the inherent uncertainty regarding where, and in what quantities, substitutes will be produced. EPA sought comment and further discussion of the use of microsimulation approaches and techniques for the RIA addendum and other program activities. The Agency sought comment on whether updating the analysis provided with the Allocation Framework Rule would be useful and what additional insight it might provide for the environmental justice analysis.

EPA received one comment related to the environmental justice analysis in the RIA. The commenter stated that there was no analysis in the RIA addendum's environmental justice analysis of how emissions of various HFC feedstocks, catalysts, and byproducts affect nearby communities, and asserted that it would be important to know for each facility which chemicals were included and their impact on cancer and respiratory risks. The commenter also stated that because the RIA addendum doesn't quantify TCE feedstock emissions from HFC/HFO production, it is not possible to understand the impact of TCE feedstock on their facility's fence-line concentrations without substantial supplementation of record. They explained that there were multiple chemical facilities near their facility, and their TCE feedstock emissions account for less than 0.1 percent of total cancer risk.

EPA acknowledged in the RIA addendum for this rulemaking's proposal the many limitations of the environmental justice analysis, as described by the commenter, including the fact that each facility generally produces several chemical products and nearby communities are exposed to multiple sources of toxic emissions. Due to the lack of consistent data, the Agency was not able to analyze community exposures from and risks due specifically to feedstocks, catalysts, and byproducts used in HFC production. Due to these limitations, EPA has stated in the environmental justice analysis in the RIA addendum that the Agency cannot make conclusions about the impact of this rule on individuals or specific communities. Instead, the analysis serves to identify the characteristics of communities surrounding HFC production facilities to better ensure that future actions, as more information becomes available, can improve outcomes. However, EPA has updated the environmental justice analysis

accompanying this final rule to include a list of chemicals that may potentially be associated with HFC production. It also provides 2019 through 2021 TRI data for each facility, including the reported air emissions for chemicals that may be associated with HFC production. See new section 6.4 of the final RIA addendum.

The commenter also stated that the RIA addendum needs to be updated to reflect 2018 AirToxScreen data, which shows a lower total potential cancer risk than the 2014 NATA data and 2017 AirToxScreen. EPA agreed that the environmental justice analysis in the RIA addendum needed to reflect more recent data. As described above, EPA updated the environmental justice analysis to include the most recent 2019 AirToxScreen dataset released.

XI. Judicial Review

The AIM Act provides that certain sections of the CAA "shall apply to" the AIM Act and actions "promulgated by the Administrator of [EPA] pursuant to [the AIM Act] as though [the AIM Act] were expressly included in title VI of [the CAA]." 42 U.S.C. 7675(k)(1)(C). Among the applicable sections of the CAA is section 307, which includes provisions on judicial review. Section 307(b)(1) provides, in part, that petitions for review must only be filed in the United States Court of Appeals for the District of Columbia Circuit: (i) when the agency action consists of "nationally applicable regulations promulgated, or final actions taken, by the Administrator," or (ii) when such action is locally or regionally applicable, but "such action is based on a determination of nationwide scope or effect and if in taking such action the Administrator finds and publishes that such action is based on such a determination." For locally or regionally applicable final actions, the CAA reserves to the EPA complete discretion whether to invoke the exception in (ii).

The final action herein noticed is "nationally applicable" within the meaning of CAA section 307(b)(1). The AIM Act imposes a national cap on the total number of allowances available for each year for all entities nationwide. 42 U.S.C. 7675(e)(2)(B)–(D). In this rulemaking, EPA is adjusting the baseline from which that total number of allowances is derived. The action noticed herein establishes a methodology to distribute that finite set of allowances in a nationally applicable rule. EPA is also establishing other nationally applicable regulations for reporting, recordkeeping, and other implementation measures. In the alternative, to the extent a court finds

the final action to be locally or regionally applicable, the Administrator is exercising the complete discretion afforded to him under the CAA to make and publish a finding that the action is based on a determination of "nationwide scope or effect" within the meaning of CAA section 307(b)(1).⁵³ In deciding to invoke this exception, the Administrator has taken into account a number of policy considerations, including his judgment regarding the benefit of obtaining the D.C. Circuit's authoritative centralized review, rather than allowing development of the issue in other contexts, in order to ensure consistency in the Agency's approach to allocation of allowances in accordance with EPA's national regulations in 40 CFR part 84. The final action treats all affected entities consistently in how the 40 CFR part 84 regulations are applied. The Administrator finds that this is a matter on which national uniformity is desirable to take advantage of the D.C. Circuit's administrative law expertise and facilitate the orderly development of the basic law under the AIM Act and EPA's implementing regulations. The Administrator also finds that consolidated review of the action in the D.C. Circuit will avoid piecemeal litigation in the regional circuits, further judicial economy, and eliminate the risk of inconsistent results for different regulated entities. The Administrator also finds that a nationally consistent approach to the issues addressed in this rule constitutes the best use of agency resources. The Administrator is publishing his finding that the action is based on a determination of nationwide scope or effect in the **Federal Register** as part of this action. For these reasons, this final action is nationally applicable or, alternatively, the Administrator is exercising the complete discretion afforded to him by the CAA and finds that the final action is based on a determination of nationwide scope or effect for purposes of CAA section 307(b)(1) and is hereby publishing that finding in the **Federal Register**. Under section 307(b)(1) of the CAA, petitions for judicial review of this action must be filed in the United States Court of Appeals for the District of Columbia Circuit by September 18, 2023.

⁵³ In the report on the 1977 Amendments that revised section 307(b)(1) of the CAA, Congress noted that the Administrator's determination that the "nationwide scope or effect" exception applies would be appropriate for any action that has a scope or effect beyond a single judicial circuit. See H.R. Rep. No. 95-294 at 323, 324, reprinted in 1977 U.S.C.A.N. 1402-03.

XII. Statutory and Executive Order Review

A. Executive Order 12866: Regulatory Planning and Review and Executive Order 14094: Modernizing Regulatory Review

This action is a “significant regulatory action” as defined under section 3(f)(1) of Executive Order 12866, as amended by Executive Order 14094. Accordingly, EPA submitted this action to the Office of Management and Budget (OMB) for Executive Order 12866 review. Documentation of any changes made in response to the Executive Order 12866 review is available in the docket. EPA prepared an analysis of the potential costs and benefits associated with this action. This analysis “*Addendum to the Regulatory Impact Analysis for the Phasedown of Hydrofluorocarbons*” is available in the docket for this action (Docket ID No. EPA–HQ–OAR–2022–0430) and is briefly summarized in section IX of this preamble, titled, “What are the costs and benefits of this action?”.

B. Paperwork Reduction Act (PRA)

The information collection activities in this rule have been submitted for approval to OMB under the PRA. The ICR document that EPA prepared has been assigned EPA ICR number 2685.04 and revises OMB Control No. 2060–0734. You can find a copy of the ICR in the docket for this rule (Docket ID. No. EPA–HQ–OAR–2022–0430), and it is briefly summarized here.

Subsection (d)(1)(A) of the AIM Act specifies that on a periodic basis, but not less than annually, each person that, within the applicable reporting period, produces, imports, exports, destroys, transforms, uses as a process agent, or reclaims a regulated substance shall submit to EPA a report that describes, as applicable, the quantity of the regulated substance that the person: produced, imported, and exported; reclaimed; destroyed by a technology approved by the Administrator; used and entirely consumed (except for trace quantities) in the manufacture of another chemical; or, used as a process agent. EPA collects such data regularly to support implementation of the AIM Act’s HFC phasedown provisions. EPA requires quarterly reporting to ensure that annual production and consumption limits are not exceeded. It is also needed for EPA to be able to review allowance transfer requests, of which remaining allowances is a major component of EPA’s review. In addition, EPA collects information to calculate allowances, to track the movement of HFCs through commerce, and to require auditing.

Collecting these data elements allows EPA to confirm that the entity has not exceeded its allowed level of production and consumption and that the aggregated annual quantity of production and consumption in the United States does not exceed the cap established in the AIM Act. As described above in this preamble, EPA is finalizing revisions to the recordkeeping and reporting requirements and new requirements.

All information sent by the submitter electronically is transmitted securely to protect information that is CBI or claimed as CBI consistent with the confidentiality determinations made in the Allocation Framework Rule. The reporting tool guides the user through the process of submitting such data. Documents containing information claimed as CBI must be submitted in an electronic format, in accordance with the recordkeeping requirements.

For reference, EPA continued to use data collected under the ICR for the GHGRP (OMB Control No. 2060–0629) as well as the associated reporting tool, the e-GGRT in developing this rulemaking. EPA also earlier requested an emergency ICR for a one-time collection request pertaining to data necessary to establish the U.S. consumption and production baselines as well as to determine potential producers, importers, and application-specific end users who were not subject to the GHGRP (OMB Control No. 2060–0732). EPA is not revising either ICR through this rule.

Respondents/affected entities: Respondents and affected entities will be individuals or entities that produce, import, export, transform, distribute, destroy, or reclaim certain HFCs that are defined as a regulated substance under the AIM Act. Respondents and affected entities will also be individuals and entities who produce, import, or export products in six statutorily specified applications: a propellant in metered dose inhalers; defense sprays; structural composite preformed polyurethane foam for marine and trailer use; the etching of semiconductor material or wafers and the cleaning of chemical vapor deposition chambers within the semiconductor manufacturing sector; mission-critical military end uses, such as armored vehicle and shipboard fire suppression systems and systems used in deployable and expeditionary applications; and, on board aerospace fire suppression.

Respondent’s obligation to respond: Mandatory (AIM Act).

Estimated number of respondents: 10,234.

Frequency of response: Quarterly, biannual, annual, and as needed depending on the nature of the report.

Total estimated burden: 58,057 hours (per year). Burden is defined at 5 CFR 1320.3(b).

Total estimated cost: \$7,931,630 per year, includes \$1,028,100 annualized capital or operation & maintenance costs.

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 EPA’s regulations in 40 CFR are listed in 40 CFR part 9.

C. Regulatory Flexibility Act (RFA)

I certify that this action will not have a significant economic impact on a substantial number of small entities (SISNOSE) under the RFA. The small entities subject to the requirements of this action include those that may produce, import, export, destroy, use as a feedstock or process agent, reclaim, or recycle HFCs. EPA estimates that approximately 35 of the 276 potentially affected small businesses could incur costs in excess of 1 percent of annual sales and that approximately 28 small businesses could incur costs in excess of three percent of annual sales. Because there is not a significant number of small businesses that may experience a significant impact, it can be presumed that this action will have no SISNOSE. Details of this analysis are presented in “*Economic Impact Screening Analysis for Phasedown of Hydrofluorocarbons: Allowance Allocation Methodology for 2024 and Later Years.*” (Docket ID EPA–HQ–OAR–2022–0430).

D. Unfunded Mandates Reform Act (UMRA)

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

E. 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.

F. Executive Order 13175: Consultation and Coordination With Indian Tribal Governments

This action does not have tribal implications as specified in Executive Order 13175. EPA is not aware of tribal businesses engaged in activities that would be directly affected by this action. Based on the Agency's assessments, EPA also does not believe that potential effects, even if direct, would be substantial. Accordingly, this action will not have substantial direct effects on tribes, 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. EPA periodically updates tribal officials on air regulations through the monthly meetings of the National Tribal Air Association and has shared information on this rulemaking through this and other fora.

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

Executive Order 13045 (62 FR 19885, April 23, 1997) directs Federal agencies to include an evaluation of the health and safety effects of the planned regulation on children in Federal health and safety standards and explain why the regulation is preferable to potentially effective and reasonably feasible alternatives. This action is subject to Executive Order 13045 (62 FR 19885, April 23, 1997) because it is a significant regulatory action under section 3(f)(1) of Executive Order 12866, and EPA believes that the environmental health or safety risk addressed by this action has a disproportionate effect on children. Accordingly, EPA has evaluated the environmental health and welfare effects of climate change on children.

GHGs, including HFCs, contribute to climate change. The GHG emissions reductions resulting from implementation of this rule would further improve children's health. The assessment literature cited in EPA's 2009 and 2016 Endangerment Findings concluded that certain populations and life stages, including children, the elderly, and the poor, are most vulnerable to climate-related health effects. The assessment literature since 2016 strengthens these conclusions by providing more detailed findings regarding these groups' vulnerabilities and the projected impacts they may experience.

These assessments describe how children's unique physiological and developmental factors contribute to making them particularly vulnerable to climate change. Impacts to children are expected from heat waves, air pollution, infectious and waterborne illnesses, and mental health effects resulting from extreme weather events. In addition, children are among those especially susceptible to most allergic diseases, as well as health effects associated with heat waves, storms, and floods. Additional health concerns may arise in low-income households, especially those with children, if climate change reduces food availability and increases prices, leading to food insecurity within households. More detailed information on the impacts of climate change to human health and welfare is provided in section III.B of the Allocation Framework Rule.

H. 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. This action applies to certain regulated substances and certain applications containing regulated substances, none of which are used to supply or distribute energy.

I. National Technology Transfer and Advancement Act and Incorporation by Reference

This action involves technical standards. EPA is allowing the use of ASTM D6064-11, ASTM D6231/D6231M-21, ASTM D6541-21, and ASTM D6806-02 as relevant for sampling and testing performed on regulated substances. ASTM D6064-11 addresses specification requirements for HFC-227ea as a fire-fighting medium, references relevant sampling requirements, and prescribes test method procedures using gas-liquid chromatography. ASTM D6231/D6231M-21 addresses specification requirements for HFC-125 as a fire-fighting medium and references relevant sampling and testing requirements, including purity testing in accordance with ASTM D6806. ASTM D6541-21 addresses specification requirements for HFC-236fa as a fire-fighting medium and references relevant sampling and testing requirements, including purity testing in accordance with ASTM D6806. ASTM D6806-02 provides a general standard procedure for determining impurities, stabilizers, and assays of halogenated organic solvents and their admixtures by gas

chromatography. ASTM D6806-02 does not provide a specific method of gas chromatography, but rather defines provide performance-based specifications of what is required for a user to demonstrate that a method to be used is valid. EPA is incorporating by reference ASTM D6064-11 (reapproved 2022), ASTM D6231/D6231M-21, ASTM D6541-21, and ASTM D6806-02 (reapproved 2022). These standards are available for purchase from ASTM International at 100 Barr Harbor Drive, PO Box C700, West Conshohocken, PA, 19428; tel.: 610.832.9500; *service@astm.org*; website: <https://www.astm.org/>, or <https://www.astm.org/d6064-11r22.html>, https://www.astm.org/d6231_d6231m-21.html, <https://www.astm.org/d6541-21.html>, and <https://www.astm.org/d6806-02r17.html>. The cost of electronic copies are \$57 for ASTM D6064-11 (reapproved 2022), \$50 for ASTM D6231/D6231M-21, \$50 for ASTM D6541-21, and \$50 for ASTM D6806-02 (reapproved 2022). The cost of obtaining these testing methods are not a significant financial burden for laboratories. The Agency is including ISO 17025 and the AHRI Refrigerant Testing Laboratories Certification Program among the accreditation and certification requirements for testing laboratories. Accordingly, the Agency is incorporating by reference ISO/IEC 17025:2017(E), General requirements for the competence of testing and calibration laboratories, Third Edition, published November 2017, the AHRI Refrigerant Testing Laboratory Certification Program Operations Manual Dec 2019 (AHRI RTL OM), and the AHRI General Operations Manual Jan 23 (AHRI General OM). ISO/IEC 17025:2017(E) specifies general requirements for competence, impartiality, and consistent operation of laboratories. The standard is applicable to all organizations performing laboratory activities, regardless of the number of personnel. This standard is available for purchase from Techstreet at 3025 Boardwalk Drive, Suite 220, Ann Arbor, MI 48108; tel.: 855.999.9870; email: *store@techstreet.com*; website: <http://www.techstreet.com/>, or https://www.techstreet.com/standards/iso-iec-17025-2017?product_id=2000100. The cost of an electronic copy of ISO/IEC 17025:2017(E) is approximately \$162. The cost of obtaining this accreditation standard is not a significant financial burden for laboratories. The AHRI Refrigerant Testing Laboratory Certification Program specifies requirements to validate that

laboratories can accurately perform the test methods prescribed in AHRI Standard 700 on any refrigerant. The AHRI RTL OM outlines the procedures and policies of the Performance Rating of the RTL Certification Program operated by AHRI. This AHRI RTL OM is used in conjunction with the AHRI General OM for AHRI Certification Programs, which outlines the general procedures and policies of the Performance Certification Program operated by AHRI. Where the AHRI General OM and the AHRI RTL OM differ, the product-specific AHRI RTL OM prevails. These standards are freely available from AHRI at 2311 Wilson Boulevard, Suite 400, Arlington, VA 22201, tel.: 703.524.8800; website: <https://www.ahrinet.org>. Therefore, EPA concludes that the ASTM, ISO/IEC 17025:2017(E), and AHRI standards being incorporated by reference are reasonably available.

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

Executive Order 12898 (59 FR 7629, February 16, 1994) directs Federal agencies, to the greatest extent practicable and permitted by law, to make environmental justice part of their mission by identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of their programs, policies, and activities on minority populations (people of color and/or Indigenous peoples) and low-income populations.

EPA believes that the human health or environmental conditions that exist prior to this action result in or have the potential to result in disproportionate and adverse human health or environmental effects on people of color, low-income populations and/or Indigenous peoples. EPA carefully evaluated available information on HFC production facilities and the characteristics of nearby communities. Based on EPA's analysis, as discussed in section X of this preamble, EPA finds evidence of environmental justice concerns near HFC production facilities from cumulative exposure to existing environmental hazards in these communities. Further details of this analysis are presented in "*Addendum to the Regulatory Impact Analysis for the Phasedown of Hydrofluorocarbons.*" (Docket ID EPA-HQ-OAR-2022-0430).

EPA believes that it is not practicable to assess whether this action is likely to result in new disproportionate and adverse effects on people of color, low-income populations and/or Indigenous

peoples. The Agency recognizes that phasing down the production of HFCs may cause significant changes in the location and quantity of production of both HFCs and their substitutes, and that these changes may in turn affect emissions of HAP at chemical production facilities. Given uncertainties about which and in what quantities HFC substitutes will be produced, EPA cannot determine how this rule would affect existing disproportionate adverse effects on communities of color and low-income people as specified in Executive Order 12898. This rule will continue to reduce emissions of potent GHGs relative to what those effects would have been without the HFC phasedown, which as noted earlier in section II of this preamble and the Allocation Framework Rule will reduce the effects of climate change, including the public health and welfare effects on overburdened and underserved communities such as low-income communities and communities of color, and/or indigenous peoples. In the Allocation Framework Rule and this action EPA additionally identified and addressed environmental justice concerns by assessing available information to analyze baseline human health or environmental conditions, conducting updated analyses based on more recently available data, and providing meaningful participation opportunities for people of color, low-income populations and/or Indigenous peoples or tribes. In the Allocation Framework Rule and this rulemaking, EPA also solicited comment on whether these changes pose risks to communities with environmental justice concerns and what steps, if any, should be taken either under the AIM Act or under EPA's other statutory authorities to address any concerns that might exist. The information supporting this Executive Order review is contained in section X of this preamble, and our environmental justice analysis in the RIA addendum, available in the docket for this rulemaking.

K. Congressional Review Act (CRA)

This action is subject to the CRA, and EPA will submit a rule report to each House of the Congress and to the Comptroller General of the United States. This action qualifies under the CRA's definition set forth in 5 U.S.C. 804(2).

List of Subjects in 40 CFR Part 84

Environmental protection, Administrative practice and procedure, Air pollution control, Chemicals, Climate Change, Emissions, Imports,

Incorporation by reference, Reporting and recordkeeping requirements.

Michael S. Regan,
Administrator.

For the reasons set out in the preamble, EPA is amending 40 CFR part 84 as follows:

PART 84—PHASEDOWN OF HYDROFLUOROCARBONS

■ 1. The authority citation for part 84 continues to read as follows:

Authority: Pub. L. 116–260, Division S, Sec. 103.

Subpart A—Production and Consumption Controls

■ 2. Amend § 84.3 by adding the definitions “Batch”, “Berth”, “Certificate of analysis”, “Commonly owned”, “Expend”, “Fire suppressant recycler”, “Majority owned”, “Repackagers”, and “Representative sample” in alphabetical order to read as follows:

§ 84.3 Definitions.

* * * * *

Batch means a vessel, container, or cylinder from which a producer, importer, reclaimer, recycler, or repackager transfers regulated substances directly for sale or distribution, or for repackaging for sale or distribution; or a population of small vessels, containers, or cylinders with the same nominal composition that a producer, importer, reclaimer, recycler, or repackager directly offers for sale or distribution.

Berth means to moor a ship in its allotted place at a wharf or dock.

* * * * *

Certificate of analysis means a document that certifies the contents of an import meets the nominal composition following sampling and testing requirements prescribed in § 84.5(i)(3) for the appropriate regulated substance or blend of regulated substances.

* * * * *

Commonly owned: An entity that is related to another entity by a shared individual natural person(s), where either:

(1) There is at least a single individual that owns 30 percent or more of each entity; or

(2) Individuals that share a direct family relationship (parent, child, sibling, or spouse) own a majority of each entity.

* * * * *

Expend means to subtract the number of allowances required for the

production or import of regulated substances under this part from a person's unexpended allowances.

* * * * *

Fire suppressant recycler means, generally, an entity that collects used HFC fire suppressants and directly resells those collected and aggregated HFCs—with or without any additional reprocessing—to another entity for reuse as a fire suppressant (also referred to as a "recycler for fire suppression" in this subpart). An entity that collects and aggregates used HFC fire suppressants for distribution to another entity for reprocessing before being sold for reuse as a fire suppressant would not be a fire suppressant recycler. An entity that resells HFC fire suppressants that have already been reprocessed for use as a fire suppressant by another entity would not be a fire suppressant recycler.

* * * * *

Majority owned means when a corporate entity has at least a fifty percent stake in another entity.

* * * * *

Repackagers means entities who transfer regulated substances, either alone or in a blend, from one container to another container prior to sale or distribution or offer for sale or distribution. An entity that services system cylinders for use in fire suppression equipment and returns the same regulated substances to the same system cylinder it was recovered from after the system cylinder is serviced is not a repackager.

Representative sample means a sample collected from a container offered for sale or distribution using a sampling method that obtains all components of regulated substance(s) in an unbiased and precise manner; and a sample that can be used to infer that the composition of regulated substance(s) in a population of containers offered for sale or distribution that constitute, or are derived from, the batch, are within stated tolerances.

* * * * *

■ 3. Effective October 1, 2024, amend § 84.3 by adding the definition "laboratory testing" in alphabetical order to read as follows:

§ 84.3 Definitions.

* * * * *

Laboratory testing means the use of the sampling and testing methodology prescribed in § 84.5(i)(3) by a laboratory that is accredited to ISO 17025 in accordance with ISO/IEC 17025:2017(E) (incorporated by reference, see § 84.37), or certified under the AHRI Refrigerant Testing Laboratory Certification Program in accordance with the AHRI

RTL OM and AHRI General OM (both incorporated by reference, see § 84.37), or recognized under OSHA's Nationally Recognized Testing Laboratory program in accordance with requirements codified at 29 CFR 1910.7.

* * * * *

- 4. Amend § 84.5 by:
 - a. In paragraph (b)(1) introductory text, after the text "substances," adding the text "either as a single component or a multicomponent substance,";
 - b. Revising paragraph (b)(1)(i);
 - c. Removing the word "or" at the end of paragraph (b)(1)(iii);
 - d. Removing the period at the end of paragraph (b)(1)(iv) and adding "; or" in its place;
 - e. Adding paragraph (b)(1)(v);
 - f. Redesignating paragraphs (b)(2) through (b)(6) as paragraphs (b)(3) through (b)(7) and adding a new paragraph (b)(2);
 - g. Revising the newly redesignated paragraph (b)(3); and
 - h. Revising paragraphs (d) and (i).

The additions and revisions read as follows:

§ 84.5 Prohibitions relating to regulated substances.

* * * * *

- (b) * * *
- (1) * * *

(i) If the importer of record possesses at the time they are required to submit reports to EPA pursuant to § 84.31(c)(7), and expends at the time of ship berthing for vessel arrivals, border crossing for land arrivals such as trucks, rails, and autos, and first point of terminus in U.S. jurisdiction for arrivals via air, consumption or application-specific allowances in a quantity equal to the exchange-value weighted equivalent of the regulated substances imported, whether present as a single component or a multicomponent blend. The required amount of allowances must be calculated to the tenth, but a minimum expenditure of 0.1 allowances is required for any import of regulated substances;

* * * * *

(v) All imports pursuant to paragraph (b)(1)(i) or (ii) of this section must be physically accompanied by a certificate of analysis, if the certificate of analysis has not been electronically submitted pursuant to § 84.31(c)(7)(xvi).

(2) No person may attempt to land bulk regulated substances on, bring regulated substances into, or introduce regulated substances into, any place subject to the jurisdiction of the United States without meeting one of the categories set forth in § 84.5(b)(1).

(3) Each person meeting the definition of importer for a particular regulated substance import transaction is jointly and severally liable for a violation of paragraph (b)(1) of this section, unless they can demonstrate that the importer of record possessed and expended allowances in accordance with the requirement outlined in paragraph (b)(1)(i) or (v) of this section or another party who meets the definition of an importer met one of the exceptions set forth in paragraphs (b)(1)(ii) through (iv) of this section.

* * * * *

(d) *Calendar-year allowances.* All production, consumption, and application-specific allowances may only be expended for production or import occurring in the calendar year for which the allowances are allocated (*i.e.*, January 1 through December 31). No person may expend, transfer, or confer a production, consumption, or application-specific allowance after December 31 of the year for which it was issued. Entities may transfer or confer their production, consumption, or application-specific allowances before January 1 of the calendar year for which the allowances were allocated.

* * * * *

(i) *Labeling.* (1) As of January 1, 2022, no person may sell or distribute, offer for sale or distribution, or import containers containing a regulated substance that lacks a label or other permanent markings stating the common name(s), chemical name(s), or ASHRAE designation of the regulated substance(s) or blend contained within, and the percentages of the regulated substances if a blend. The label or other permanent markings must be:

- (i) Durable and printed or otherwise labeled on, or affixed to, the external surface of the bulk regulated substance container;
- (ii) Readily visible and legible;
- (iii) Able to withstand open weather exposure without a substantial reduction in visibility or legibility;
- (iv) Displayed on a background of contrasting color; and
- (v) If a container of a regulated substance is contained within a box or other overpack, the exterior packaging must contain legible and visible information of what regulated substance is contained within.

(2) No person other than the importer of record may repackage or relabel regulated substances that were initially unlabeled or mislabeled. In order to repackage the regulated substances, the importer of record must either:

- (i) Expend consumption allowances equal to the amount of allowances that

would be required if each cylinder were full of HFC-23; or

(ii) Verify the contents with independent laboratory testing results and affix a correct label on the container that matches the lab-verified test results before the date of importation (consistent with the definition at 19 CFR 101.1) of the container.

(3)(i) No person producing, importing, exporting, reclaiming, recycling for fire

suppression, or repackaging regulated substances, whether as a single or multicomponent substance, may sell or distribute, or offer for sale or distribution, those regulated substances without first conducting laboratory testing of a representative sample of the regulated substances that they are producing, importing, exporting, reclaiming, recycling for fire suppression, or repackaging to verify

that the composition of the regulated substance(s) matches the container labeling using the sampling and testing methodology prescribed in appendix A to 40 CFR part 82, subpart F for regulated substances offered for sale and distribution as refrigerants and using the following sampling and testing method for regulated substances offered for non-refrigerant uses:

TABLE 1 TO PARAGRAPH (i)(3)(i) NON-REFRIGERANT REGULATED SUBSTANCE SAMPLING AND TESTING METHODS

Regulated substance	Sampling and testing method
HFC-23, HFC-134, HFC-125, HFC-143a, HFC-41, HFC-152a	Appendix A to 40 CFR part 82, subpart F, Sections 1, 2, 3, 5.1, 5.2, 5.3, 7, 8; <i>Part 7 of 2008 Appendix C for Analytical Procedures for AHRI Standard 700-2014—Normative</i> , (incorporated by reference in § 84.37). ³
HFC-134a, HFC-143, HFC-245fa, HFC-32, HFC-152	Appendix A to 40 CFR part 82, subpart F, Sections 1, 2, 3, 5.1, 5.2, 5.3, 7, 8; <i>Part 9 of 2008 Appendix C for Analytical Procedures for AHRI Standard 700-2014—Normative</i> , (incorporated by reference in § 84.37). ³
HFC-227ea, HFC-236cb, HFC-236ea, HFC-236fa, HFC-245ca, HFC-365mfc, HFC-43-10mee.	Sections 8, ¹ 9, 10, 11, 12, ² and 13 of EPA Method 18 as applicable—appendix A-6 to 40 CFR part 60—Test Methods 16 through 18. Or ASTM D6806-02 (2022), <i>Standard Practice for Analysis of Halogenated Organic Solvents and Their Admixtures by Gas Chromatography</i> (incorporated by reference in § 84.37). ⁴

¹ Only applicable portions of section 8 as specified here are required. Canisters may be used in place of bags for the purposes of these requirements. A sampling and analysis procedure under section 8.2 which provides for a representative sample is required (while section 8.2.1.5 is likely most appropriate, other procedures may be acceptable). Sections 8.4.1, 8.4.2.1, and 8.4.2.2 are required.

² “Dry basis” concentrations do not need to be recorded.

³ ASTM D6064-11 (reapproved 2022), *Standard Specification for HFC-227ea, 1,1,1,2,3,3,3-Heptafluoropropane (CF3CHF2CF3)* (incorporated by reference in § 84.37) may be used as an alternative for non-refrigerant regulated substances offered for fire suppression use.

⁴ ASTM D6231/D6231M-21, *Standard Specification for HFC-125 (Pentafluoroethane, C2HF5)* (incorporated by reference in § 84.37) and ASTM D6541-21 *Standard Specification for HFC-236fa, 1,1,1,3,3,3-Hexafluoropropane, (CF3CH2CF3)*, (incorporated by reference in § 84.37) reference ASTM D6806 and may be used as an alternative for non-refrigerant regulated substances offered for fire suppression use.

(ii) No person may sell or distribute, or offer for sale or distribution, regulated substances, whether as a single or multicomponent substance, as a refrigerant (except if recovered from and recycled for use in motor vehicle air conditioning or motor vehicle air conditioning-like appliances in accordance with 40 CFR part 82, subpart B) that do not meet the specifications in appendix A to 40 CFR part 82, subpart F—Specifications for Refrigerants, or, if

not listed therein, appendix A1 to 40 CFR part 82, subpart F. For persons who are producing, importing, reclaiming, recycling for fire suppression, or repackaging regulated substances, the applicable specifications must be verified using laboratory testing and the sampling and testing methodology prescribed in appendix A to 40 CFR part 82, subpart F.

* * * * *

- 5. Amend § 84.7 by
 - a. In paragraph (b)(2), removing the text “303,887,017” and adding in its place the text “302,538,316”; and
 - b. Revising the table in paragraph (b)(3).

The revisions read as follows:

§ 84.7 Phasedown schedule.

*	*	*	*	*
(b)	*	*	*	
(3)	*	*	*	

TABLE 2 TO PARAGRAPH (b)(3)

Year	Total production (MTEVe)	Total consumption (MTEVe)
(i) 2022-2023	344,299,157	273,498,315
(ii) 2024-2028	229,521,263	181,522,990
(iii) 2029-2033	114,760,632	90,761,495
(iv) 2034-2035	76,507,088	60,507,663
(v) 2036 and thereafter	57,380,316	45,380,747

- 6. Amend § 84.9 by:
 - a. In paragraph (a) introductory text, add “2022 and 2023” after the words “calendar year”; and
 - b. Redesignating paragraph (b) as paragraph (c) and adding a new paragraph (b).

The revision reads as follows:

§ 84.9 Allocation of calendar-year production allowances.

* * * * *

(b) Starting with the allocation of 2024 calendar years allowances, the

relevant Agency official will issue, through a separate notification, calendar year production allowances to entities that produced a regulated substance in 2021 or 2022, or both 2021 and 2022. The allocation of calendar years 2024, 2025, 2026, 2027, and 2028 production

allowances is calculated as follows for each entity:

(1) Take the average of the three highest annual exchange value-weighted production amounts that each eligible entity reported to the Agency for calendar years 2011 through 2019. If an entity, or commonly owned or controlled group of entities, does not have consumption amounts for three years between calendar years 2011 through 2019, the relevant Agency official will take the average of available year(s) of consumption for calendar years 2011 through 2019;

(2) Sum every entity's average values determined in paragraph (b)(1) of this section and determine each entity's percentage of that total;

(3) Determine the amount of general pool production allowances by subtracting the quantity of application-specific allowances for that year as determined in accordance with § 84.13 from the production cap in § 84.7(b)(3); and

(4) Determine individual entities' production allowance quantities by multiplying each entity's percentage determined in paragraph (b)(2) of this section by the amount of general pool allowances determined in paragraph (b)(3) of this section.

* * * * *

■ 7. Amend § 84.11 by:

■ a. In paragraph (a) introductory text, removing the text "calendar year" and adding in its place the text "calendar years 2022 and 2023" and removing the word "importers" and adding in its place the text "entities that imported"; and

■ b. Removing paragraph (c), redesignating paragraph (b) as paragraph (c) and adding a new paragraph (b).

The addition reads as follows:

§ 84.11 Allocation of calendar-year consumption allowances.

* * * * *

(b) Starting with the allocation of 2024 calendar years allowances the relevant Agency official will issue, through a separate notification, calendar year consumption allowances. The allocation of calendar year 2024, 2025, 2026, 2027, and 2028 consumption allowances is calculated as follows for each entity:

(1) For new market entrants that were allocated allowances pursuant to § 84.15(e)(3), take the allowances allocated for calendar year 2023 and divide that value by the proportion of calendar year 2023 consumption allowances received by general pool allowance holders pursuant to paragraph (a) of this section relative to

their high three average calculated pursuant to paragraph (a)(2) of this section;

(2) For entities that produced or imported a regulated substance in 2021 or 2022, or both 2021 and 2022, and have not been allocated allowances pursuant to § 84.15(e)(3), the relevant Agency official will calculate and issue allowances. This calculation and issuance will be to a single entity if multiple entities with historic consumption data are related through shared corporate or common ownership. The relevant Agency official will take the average of the three highest annual exchange value-weighted consumption amounts, which for entities related through shared corporate or common ownership or control would be aggregated and averaged at the corporate or common ownership level, that each eligible entity reported to the Agency for calendar years 2011 through 2019. If an entity, or commonly owned or controlled group of entities, does not have consumption amounts for three years between calendar years 2011 through 2019, the relevant Agency official will take the average of available year(s) of consumption for calendar years 2011 through 2019;

(3) If an entity has a value calculated under paragraphs (b)(1) and (b)(2) of this section, take the single higher value;

(4) If an entity allocated allowances pursuant to § 84.15(e)(3) was acquired by an entity that has a market share calculable under paragraph (b)(2) of this section, and EPA has approved this acquisition, sum the value calculated under paragraph (b)(1) of this section for the entity allocated allowances pursuant to § 84.15(e)(3) with the value calculated under paragraph (b)(2) of this section disregarding any historic consumption activity by the entity allocated allowances pursuant to § 84.15(e)(3), except this paragraph (b)(4) shall not apply to an entity allocated allowances pursuant to § 84.15(e)(3) that has a higher value calculated under paragraph (b)(2) of this section than under paragraph (b)(1) of this section;

(5) Sum every entity's values as determined in paragraphs (b)(1), (2), (3), and (4) of this section and determine each entity's percentage of that total;

(6) Determine the amount of general pool consumption allowances by subtracting the quantity of application-specific allowances for that year as determined in accordance with § 84.13 from the consumption cap in § 84.7(b)(3); and

(7) Determine individual entities' consumption allowance quantities by multiplying each entity's percentage determined in paragraph (b)(5) of this

section by the amount of general pool allowances determined in paragraph (b)(6) of this section.

■ 8. Amend § 84.17 by:
■ a. Revising paragraphs (a)(8) and (9); and

■ b. Adding paragraphs (a)(10) and (11).
The revisions and additions read as follows:

§ 84.17 Availability of additional consumption allowances.

* * * * *

(a) * * *

(8) A copy of the bill of lading and the invoice indicating the net quantity (in kilograms) of regulated substances shipped and documenting the sale of the regulated substances to the purchaser;

(9) The Harmonized Tariff Schedule codes of the regulated substances exported;

(10) Internal Transaction Numbers for all shipments; and

(11) All international export declaration documentation (*i.e.*, electronic export information), which is electronically filed within AES.

* * * * *

■ 9. Amend § 84.19 by adding paragraph (a)(5) to read as follows:

§ 84.19 Transfers of allowances.

(a) * * *

(5) An entity does not need to follow the procedures in this paragraph (a) to expend allowances possessed by another entity that is majority owned by it, it majority owns, related to it through majority ownership, or commonly owned with it.

* * * * *

■ 10. Amend § 84.25 by revising paragraph (a)(1)(v) to read as follows:

§ 84.25 Required processes to import regulated substances as feedstocks or for destruction.

(a) * * *

(1) * * *

(v) The U.S. port of entry for the import, the expected date of import, and the vessel transporting the material. If at the time of submitting the petition the entity does not know this information, and the entity receives a non-objection notice for the individual shipment in the petition, the entity is required to notify the relevant Agency official of this information prior to the date of importation (consistent with the definition at 19 CFR 101.1) of the individual shipment into the United States;

* * * * *

■ 11. Amend § 84.31 by:

■ a. Revising paragraphs (b)(2)(i) through (iii);

- b. In paragraph (b)(3)(xi), after the text “distribution” adding the text “, including instrument calibration, sample testing data files, audit trail files, and results summaries of both sample test results and quality control test results that are in a form suitable and readily available for review”;
- c. In paragraph (c)(1) introductory text, after the text “importer of” adding the text “record of”;
- d. In paragraph (c)(2)(xviii), after the text “distribution” adding the text “, including instrument calibration, sample testing data files, audit trail files, and results summaries of both sample test results and quality control test results that are in a form suitable and readily available for review”;
- e. In paragraph (c)(3)(i)(D), after the text “(consistent with the definition at 19 CFR 101.1)”;
- f. Revising paragraph (c)(7);
- g. Adding paragraph (c)(9);
- h. Redesignating paragraph (d)(2) as (d)(3) and adding a new paragraph (d)(2);
- i. Revising paragraph (i)(4)(i);
- j. Revising paragraph (j)(3); and
- k. Redesignating paragraph (k) as paragraph (l) and adding a new paragraph (k).

The additions and revisions read as follows:

§ 84.31 Recordkeeping and reporting.

* * * * *

- (b) * * *
- (2) * * *

(i) The quantity (in kilograms) of production of each regulated substance used in processes resulting in their transformation by the producer; for any regulated substance that is used in processes resulting in their transformation at a facility that differs from the facility of production, but both facilities are owned by the producer, the name, quantity (in kilograms), and recipient facility of each regulated substance; and the quantity (in kilograms) intended for transformation by a second party;

(ii) The quantity (in kilograms) of production of each regulated substance used in processes resulting in their destruction by the producer; for any regulated substance that is used in processes resulting in their destruction at a facility that differs from the facility of production, but both facilities are owned by the producer, the name, quantity (in kilograms), and recipient facility of each regulated substance; and the quantity (in kilograms) intended for destruction by a second party;

(iii) The quantity (in kilograms) of production of each regulated substance

used as a process agent by the producer; for any regulated substance that is used as a process agent at a facility that differs from the facility of production, but both facilities are owned by the producer, the name, quantity (in kilograms), and recipient facility of each regulated substance; and the quantity (in kilograms) intended for use as a process agent by a second party;

* * * * *

(c) * * *

(7) *Additional reporting for importers of record.* The importer of record must include the following no later than 10 days if arriving by marine vessel or 5 days for non-marine vessel prior to the date of importation (consistent with the definition at 19 CFR 101.1), via a U.S. Customs and Border Protection-authorized electronic data interchange system, such as the Automated Broker Interface (authorized agents may permissibly file on behalf of an importer of record):

- (i) Cargo Description;
- (ii) Net weight;
- (iii) Container number(s) associated with the shipment, as applicable;
- (iv) Gross Weight;
- (v) Weight Unit of Measure;
- (vi) Port of Entry;
- (vii) Scheduled Entry Date;
- (viii) Harmonized Tariff Schedule (HTS) code;
- (ix) Harmonized Tariff Schedule (HTS) Description;
- (x) Origin Country;
- (xi) Importer of Record Name and Associated Number;
- (xii) Consignee Entity Name;
- (xiii) CAS Number(s) of the regulated substance(s) imported and, for regulated substances that are in a mixture, either the ASHRAE numerical designation of the refrigerant or the percentage of the mixture containing each regulated substance;
- (xiv) If importing regulated substances for transformation or destruction, a copy of the non-objection notice issued consistent with § 84.25;
- (xv) If importing regulated substances as a transshipment, a copy of the confirmation documenting the entity reported the transshipment consistent with paragraph (c)(3)(i) of this section; and
- (xvi) A certificate of analysis, if the certificate of analysis is not physically accompanying the shipment pursuant to § 84.5(b)(1)(v).

* * * * *

(9) *Importer of record information.* (i) Any entity that falls under any of the following criteria must submit the information outlined in paragraph (c)(9)(ii) of this section:

(A) That is issued allowances by EPA and anticipates being the importer of record for a shipment of regulated substances; or

(B) That is not issued allowances by EPA, but receives transferred or conferred allowances.

(ii) The following information must be submitted to EPA by the date specified under paragraph (c)(9)(iii) of this section:

- (A) Names of all subsidiaries;
- (B) Entities commonly owned or majority owned by the same person or persons;
- (C) Alternative names under which the entity does business;
- (D) Importer of record numbers; and
- (E) If providing information under paragraph (c)(9)(ii) (A), (B), or (C) of this section:

(1) The relationship between the allowance holder and each subsidiary and each entity commonly owned or majority owned by the same person or persons, including alternative names under which each listed entity does business; and

(2) If applicable, the identity of owners and their respective percentage of ownership.

(iii) The information outlined in paragraph (c)(9)(ii) of this section must be submitted each year by:

(A) November 15 after being issued allowances for an entity that falls under paragraph (c)(9)(i)(A) of this section; or

(B) within 15 calendar days of receiving a non-objection notice for conferral of application-specific allowances pursuant to § 84.13(h) or for inter-company transfer of consumption allowances pursuant to § 84.19(a) for an entity that falls under paragraph (c)(9)(i)(B) of this section.

(iv) If changes occur to the information previously provided to the Agency, such changes must be transmitted to the Agency at least 21 days prior to expenditure of allowances pursuant to § 84.5(b)(1)(i).

* * * * *

(d) * * *

(2) *Recordkeeping.* (i) Exporters must maintain dated records of batch tests of regulated substances packaged for sale or distribution, including instrument calibration, sample testing data files, audit trail files, and results summaries of both sample test results and quality control test results that are in a form suitable and readily available for review.

(ii) [Reserved]

* * * * *

(i) * * *

(4) * * *

(i) Reclaimers must maintain records, by batch, of the results of the analysis

conducted to verify that reclaimed regulated substance meets the necessary specifications in appendix A to 40 CFR part 82, subpart F (based on AHRI Standard 700–2016), including instrument calibration, sample testing data files, audit trail files, and results summaries of both sample test results and quality control test results that are in a form suitable and readily available for review. Such records must be maintained for five years.

* * * * *

(j) * * *

(3) *Recordkeeping.* (i) Recyclers must maintain records of the names and addresses of persons sending them material for recycling and the quantity of the material (the combined mass of regulated substance and contaminants) by regulated substance sent to them for recycling. Such records must be maintained on a transactional basis for five years.

(ii) Recyclers must maintain dated records of batch tests of regulated substances packaged for sale or distribution, including instrument calibration, sample testing data files, audit trail files, and results summaries of both sample test results and quality control test results that are in a form suitable and readily available for review.

(k) *Repackagers.* Persons who transfer regulated substances, either alone or in a blend from one container to another container prior to sale or distribution or offer for sale or distribution must comply with the following recordkeeping requirements:

(1) *Recordkeeping.* Repackagers must maintain dated records of batch tests of regulated substances packaged for sale or distribution, including instrument calibration, sample testing data files, audit trail files, and results summaries of both sample test results and quality

control test results that are in a form suitable and readily available for review.

(2) [Reserved]

■ 12. Add § 84.37 to read as follows:

§ 84.37 Incorporation by reference.

Certain material is incorporated by reference into this part with the approval of the Director of the Federal Register under 5 U.S.C. 552(a) and 1 CFR part 51. All approved incorporation by reference (IBR) material is available for inspection at EPA and at the National Archives and Records Administration (NARA). Contact EPA at: U.S. EPA’s Air and Radiation Docket; EPA West Building, Room 3334, 1301 Constitution Ave. NW, Washington, DC, 202–566–1742. For information on the availability of this material at NARA, visit www.archives.gov/federal-register/cfr/ibr-locations.html or email fr.inspection@nara.gov. The material also may be obtained from the following sources.

(a) Air-Conditioning, Heating, and Refrigeration Institute (AHRI), 2311 Wilson Boulevard, Suite 400, Arlington, VA 22201; phone: 703.524.8800; website: www.ahrinet.org.

(1) 2008 Appendix C to AHRI Standard 700–2014, 2008 Appendix C for Analytical Procedures for AHRI Standard 700–2014—Normative, copyright 2008; into § 84.5(i).

(2) [Reserved]

(b) ASTM International, 100 Barr Harbor Drive, PO Box C700, West Conshohocken, PA 19428; phone: 610.832.9500; email: service@astm.org; website: www.astm.org/.

(1) ASTM D6064–11 (reapproved 2022), Standard Specification for HFC–227ea, 1,1,1,2,3,3,3-Heptafluoropropane (CF₃CHFCF₃), approved November 1, 2022; IBR approved for § 84.5(i).

(2) ASTM D6231/D6231M–21, Standard Specification for HFC–125 (Pentafluoroethane, C₂HF₅), approved June 1, 2021; IBR approved for § 84.5(i).

(3) ASTM D6541–21, Standard Specification for HFC–236fa, 1,1,1,3,3,3-Hexafluoropropane, (CF₃CH₂CF₃), approved June 1, 2021; IBR approved for § 84.5(i).

(4) ASTM D6806–02 (reapproved 2022), Standard Practice for Analysis of Halogenated Organic Solvents and Their Admixtures by Gas Chromatography, approved May 1, 2022; IBR approved for § 84.5(i).

■ 13. Effective October 1, 2024, amend § 84.37 by adding paragraphs (a)(2) and (3) and (c) to read as follows:

§ 84.37 Incorporation by Reference.

* * * * *

(a) * * *

(2) AHRI RTL OM December 2019, Refrigerant Testing Laboratory Certification Program Operations Manual, copyright 2019; IBR approved for § 84.3.

(3) AHRI General OM—January 2023, General Operations Manual, copyright 2022; IBR approved for § 84.3.

* * * * *

(c) International Organization for Standardization (ISO), Chemin de Blandonnet 8, CP 401—1214 Vernier, Geneva, Switzerland; tel.: + 41 22 749 01 11; fax: + 41 22 733 34 30; email: central@iso.org; website: www.iso.org.

(1) ISO/IEC 17025:2017(E), “General requirements for the competence of testing and calibration laboratories”, Third Edition, published November 2017; IBR approved for § 84.3.

(2) [Reserved]

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