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Protection of Stratospheric Ozone: Adjustments to the Allowance System for Controlling HCFC Production, Import, and Export; Final Rule

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 82

[EPA–HQ–OAR–2008–0496; FRL–9091–7]

RIN 2060–A076

Protection of Stratospheric Ozone: Adjustments to the Allowance System for Controlling HCFC Production, Import, and Export

AGENCY: Environmental Protection Agency (EPA).

ACTION: Final rule.

SUMMARY: EPA is adjusting the allowance system controlling U.S. consumption and production of hydrochlorofluorocarbons (HCFCs). This action allocates production and consumption allowances for HCFC–22 and HCFC–142b, as well as other HCFCs for which allowances were not allocated previously, for the control periods 2010–2014. This action also establishes baselines for HCFCs for which EPA had not established baselines previously. The HCFC allowance system is part of EPA's Clean Air Act program to phase out ozone-depleting substances to protect the stratospheric ozone layer. Protection of the stratospheric ozone layer helps reduce rates of skin cancer and cataracts, as well as other health and ecological effects. The U.S. is obligated under the *Montreal Protocol on Substances that Deplete the Ozone Layer* (Montreal Protocol) to limit HCFC consumption and production to a specific level and, using stepwise reductions, to decrease the specific level culminating in a complete HCFC phaseout in 2030. The next major milestone, to occur on January 1, 2010, is a 75 percent reduction from the aggregate U.S. HCFC baseline for production and consumption. The allowances allocated in this action ensure compliance with the international stepwise reduction, consistent with the 1990 Clean Air Act Amendments. In addition, this action amends the regulatory provisions concerning allowances for HCFC production for developing countries' basic domestic needs to be consistent with the September 2007 adjustments to the Montreal Protocol. Also, this action provides the Agency's interpretation of a self-effectuating ban on introduction into interstate commerce and use of HCFCs contained in section 605(a) of the Clean Air Act and amends existing regulatory provisions to facilitate implementation of the statutory requirements.

DATES: This rule is effective January 1, 2010.

ADDRESSES: EPA has established a docket for this action under Docket ID No. EPA–HQ–OAR–2008–0496. All documents in the docket are listed on the *www.regulations.gov* Web site. Although listed in the index, some information is not publicly available, *e.g.,* confidential business information (CBI) or other information whose disclosure is restricted by statute. Certain other material, such as copyrighted material, is not placed on the Internet and will be publicly available only in hard copy form. Publicly available docket materials are available either electronically through *www.regulations.gov* or in hard copy at the Air and Radiation Docket, EPA/DC, EPA West, Room 3334, 1301 Constitution Ave., 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.

FOR FURTHER INFORMATION CONTACT: Jeremy Arling by telephone at (202) 343–9055, or by e-mail at *arling.jeremy@epa.gov* or by mail at U.S. Environmental Protection Agency, Stratospheric Protection Division, Stratospheric Program Implementation Branch (6205J), 1200 Pennsylvania Avenue, NW., Washington, DC 20460. For technical information, contact Staci Gatica at (202) 343–9469, or by e-mail at *gatica.staci@epa.gov* or by mail at U.S. Environmental Protection Agency, Stratospheric Protection Division, Stratospheric Program Implementation Branch (6205J), 1200 Pennsylvania Avenue, NW., Washington, DC 20460. You may also visit the Ozone Depletion Web site of EPA's Stratospheric Protection Division at *www.epa.gov/ozone/strathome.html* for further information about EPA's Stratospheric Ozone Protection regulations, the science of ozone layer depletion, and related topics.

SUPPLEMENTARY INFORMATION: Under the *Montreal Protocol on Substances that Deplete the Ozone Layer* (Montreal Protocol), as amended, the U.S. and other industrialized countries that are Parties to the Protocol have agreed to limit production and consumption of hydrochlorofluorocarbons (HCFCs), and to phase out production and consumption in a stepwise fashion over time, culminating in a general phaseout by 2020 while permitting a small amount of HCFC production and consumption to continue solely for servicing existing appliances until 2030. Title VI of the Clean Air Act Amendments of 1990 (CAAA of 1990) also mandates restrictions on HCFCs, culminating in a complete production and consumption phaseout in 2030. For purposes of both the Montreal Protocol and the Clean Air Act, ''consumption'' is defined as production plus imports minus exports. Sections 605 and 606 of the Clean Air Act authorize EPA to promulgate regulations to manage the consumption and production of HCFCs until the terminal phaseout. In 1993, EPA established a chemical-by-chemical, ''worst-first,'' approach to implement the Montreal Protocol's graduated phaseout in overall HCFC levels (58 FR 65018). Key concepts in the ''worst-first'' approach include ''distinguishing among HCFCs based on their ODP [ozone depletion potential] and phasing out use in new equipment prior to use for servicing existing equipment'' (58 FR 65026).[1] The consumption cap became effective in 1996, and HCFC consumption in the U.S. remained about 15 percent below the cap for the first two years. In 1998 and 1999, consumption rose to levels that approached the cap. On January 21, 2003, EPA established an allowance system for HCFCs (68 FR 2820), noting at that time that it would again pursue a notice-and-comment rulemaking to implement a 2010 stepwise reduction. EPA promulgated minor amendments to these regulations on June 17, 2004 (69 FR 34024), and July 20, 2006 (71 FR 41163).

This action implements the next step in the chemical-by-chemical phaseout the United States uses to meet its international obligations. Specifically, EPA is granting specified percentages of the consumption and production baselines for HCFC–141b, HCFC–22, and HCFC–142b for the control periods 2010–2014. This action also establishes company-by-company consumption and production baselines for other HCFCs and grants specified percentages of those baselines for the control periods 2010–2014. This action also amends the provisions for HCFC production allowances to meet the basic domestic needs of developing countries. In addition, EPA is providing its interpretation of a self-effectuating ban on introduction into interstate commerce and use of HCFCs, which is contained in section 605(a) of the Clean Air Act.

[1] The ozone depletion potential (ODP) is a number that refers to the amount of ozone depletion caused by a substance. It is the ratio of the impact on ozone of a chemical compared to the impact of a similar mass of CFC–11. Thus, the ODP of CFC–11 is defined to be 1.0. Other CFCs and HCFCs have ODPs ranging from 0.01 to 1.0.

Section 553(d) of the Administrative Procedure Act (APA), 5 U.S.C. Chapter 5, generally provides that rules may not take effect earlier than 30 days after they are published in the **Federal Register.** EPA is issuing this final rule under section 307(d)(1) of the Clean Air Act, which states: ''The provisions of section 553 through 557 * * * of Title 5 shall not, except as expressly provided in this section, apply to actions to which this subsection applies.'' Thus, section 553(d) of the APA does not apply to this rule. EPA is nevertheless acting consistently with the policies underlying APA section 553(d) in making this rule effective on January 1, 2010. APA section 553(d) provides exceptions for any action that grants or recognizes an exemption or relieves a restriction or as otherwise provided by the agency for good cause found and published within the rule. This final rule relieves a restriction by authorizing the production and import of certain HCFCs in 2010 that would otherwise be prohibited under the existing regulations.

Abbreviations and Acronyms Used in This Document

AHRI—Air-Conditioning, Heating, and Refrigeration Institute
BDN—Basic Domestic Need
CAA—Clean Air Act
CAAA—Clean Air Act Amendments of 1990
CFC—Chlorofluorocarbon
EPA—Environmental Protection Agency
FDA—Food and Drug Administration
HCFC—Hydrochlorofluorocarbon
HFC—Hydrofluorocarbon
Montreal Protocol—*Montreal Protocol on Substances that Deplete the Ozone Layer*
MOP—Meeting of the Parties
MT—Metric Ton
NPRM—Notice of Proposed Rulemaking
ODP—Ozone Depletion Potential
ODS—Ozone-Depleting Substance
OEM—Original Equipment Manufacturer
Party—States and regional economic integration organizations that have consented to be bound by the *Montreal Protocol on Substances that Deplete the Ozone Layer*
SNAP—Significant New Alternatives Policy
TXV—Thermostatic Expansion Valve
UNEP—United Nations Environment Programme

Table of Contents

I. Regulated Entities

This rule will affect the following categories:

Category	NAICS code	SIC code	Examples of regulated entities
Industrial Gas Manufacturing	325120	2869	Fluorinated hydrocarbon gases manufacturers and reclaimers.
Other Chemical and Allied Products Merchant Wholesalers.	424690	5169	Chemical gases and compressed gases merchant wholesalers.
Air-Conditioning and Warm Air Heating Equipment and Commercial and Industrial Refrigeration Equipment Manufacturing.	333415	3585	Air-Conditioning Equipment and Commercial and Industrial Refrigeration Equipment manufacturers.
Air-Conditioning Equipment and Supplies Merchant Wholesalers.	423730	5075	Air-conditioning (condensing unit, compressors) merchant wholesalers.
Electrical and Electronic Appliance, Television, and Radio Set Merchant Wholesalers.	423620	5064	Air-conditioning (room units) merchant wholesalers.
Plumbing, Heating, and Air-Conditioning Contractors	238220	1711, 7623	Central air-conditioning system and commercial refrigeration installation; HVAC contractors.

This table is not intended to be exhaustive, but rather provides a guide for readers regarding entities likely to be regulated by this action. This table lists the types of entities that EPA is now aware potentially could be regulated by this action. Other types of entities not listed in this table could also be affected. To determine whether your facility, company, business organization, or other entity is regulated by this action, you should carefully examine these regulations. If you have questions regarding the applicability of this action to a particular entity, consult the person listed in the **FOR FURTHER INFORMATION CONTACT** section.

II. Background

A. How Does the Montreal Protocol Phase Out HCFCs?

The *Montreal Protocol on Substances that Deplete the Ozone Layer* is the international agreement aimed at reducing and eventually eliminating the production and consumption of

stratospheric ozone-depleting substances. The U.S. was one of the original signatories to the 1987 Montreal Protocol and the U.S. ratified the Protocol on April 12, 1988. Congress then enacted, and President George H.W. Bush signed into law, the Clean Air Act Amendments of 1990 (CAAA of 1990), which included Title VI on Stratospheric Ozone Protection, codified as 42 U.S.C. Chapter 85, Subchapter VI, to ensure that the United States could satisfy its obligations under the Montreal Protocol. Title VI includes restrictions on production, consumption, and use of ozone-depleting substances that are subject to acceleration if ''the Montreal Protocol is modified to include a schedule to control or reduce production, consumption, or use * * * more rapidly than the applicable schedule'' prescribed by the statute. Both the Montreal Protocol and the Clean Air Act define consumption as production plus imports minus exports.

In 1990, as part of the London Amendment to the Montreal Protocol, the Parties identified HCFCs as ''transitional substances'' to serve as temporary, lower-ODP substitutes for CFCs and other ODS. EPA similarly viewed HCFCs as ''important interim substitutes that will allow for the earliest possible phaseout of CFCs and other Class I substances [2]'' (58 FR 65026). In 1992, through the Copenhagen Amendment to the Montreal Protocol, the Parties created a detailed phaseout schedule for HCFCs beginning with a cap on consumption for industrialized (Article 2) Parties, a schedule to which the United States adheres. The consumption cap for each Article 2 Party was set at 3.1 percent (later tightened to 2.8 percent) of a Party's CFC consumption in 1989, plus a Party's consumption of HCFCs in 1989 (weighted on an ODP basis). Based on this formula, the HCFC consumption cap for the U.S. was 15,240 ODP-weighted metric tons, effective January 1, 1996. This became the U.S. consumption baseline for HCFCs.

The 1992 Copenhagen Amendment created a schedule with graduated reductions and the eventual phaseout of HCFC consumption (Copenhagen, 23–25 November, 1992, Decision IV/4). Prior to the 2007 adjustment, the schedule called for a 35 percent reduction of the consumption cap in 2004, followed by a 65 percent reduction in 2010, a 90 percent reduction in 2015, a 99.5 percent reduction in 2020 (restricting the remaining 0.5 percent of baseline to the servicing of existing refrigeration and air-conditioning equipment), with a total phaseout in 2030.

The Copenhagen Amendment did not cap HCFC production. In 1999, the Parties created a cap on production for Article 2 Parties through an amendment to the Montreal Protocol agreed by the Eleventh Meeting of the Parties (Beijing, 29 November–3 December 1999, Decision XI/5). The cap on production was set at the average of: (a) 1989 HCFC production plus 2.8 percent of 1989 CFC production, and (b) 1989 HCFC consumption plus 2.8 percent of 1989 CFC consumption. Based on this formula, the HCFC production cap for the U.S. was 15,537 ODP-weighted metric tons, effective January 1, 2004. This became the U.S. production baseline for HCFCs.

To further protect human health and the environment, the Parties to the Montreal Protocol adjusted the Montreal Protocol's phaseout schedule for HCFCs at the 19th Meeting of the Parties in September 2007. In accordance with Article 2(9)(d) of the Montreal Protocol, the adjustment to the phaseout schedule was effective on May 14, 2008.[3]

As a result of the 2007 Montreal Adjustment (reflected in Decision XIX/6), the United States and other industrialized countries are obligated to reduce HCFC production and consumption 75 percent below the established baseline by 2010, rather than 65 percent as was the previous requirement. The other milestones remain the same: 90 percent below the baseline by 2015, and 99.5 percent below the baseline by 2020—allowing, during 2020 to 2030, production and consumption at only 0.5 percent of baseline solely for servicing existing air-conditioning and refrigeration equipment. The adjustment also resulted in a phaseout schedule for HCFC production that parallels the consumption phaseout schedule. All production and consumption for Article 2 Parties is phased out by 2030.

Decision XIX/6 also adjusted the provisions for Parties operating under paragraph 1 of Article 5 (developing countries): (1) To set HCFC production and consumption baselines based on the average 2009–2010 production and consumption, respectively; (2) to freeze HCFC production and consumption at those baselines in 2013; and (3) to add stepwise reductions of 10 percent below baselines by 2015, 35 percent by 2020, 67.5 percent by 2025, and 97.5 percent by 2030—allowing, between 2030 and 2040, an annual average of no more than 2.5 percent to be produced or imported solely for servicing existing air-conditioning and refrigeration equipment. All production and consumption for Article 5 Parties is phased out by 2040.

In addition, Decision XIX/6 adjusted Article 2F to allow industrialized countries to produce ''up to 10 percent of baseline levels'' for export to Article 5 countries ''in order to satisfy basic domestic needs'' until 2020.[4] Paragraph

[2] Class I refers to the controlled substances listed in appendix A to 40 CFR part 82 subpart A. Class II refers to the controlled substances listed in appendix B to 40 CFR part 82 subpart A.

[3] Under Article 2(9)(d) of the Montreal Protocol, an adjustment enters into force six months from the date the depositary (the Ozone Secretariat) circulates it to the Parties. The depositary accepts all notifications and documents related to the Protocol and examines whether all formal requirements are met. In accordance with the procedure in Article 2(9)(d), the depositary communicated the adjustment to all Parties on November 14, 2007. The adjustment entered into force and become binding for all Parties on May 14, 2008.

[4] Paragraphs 4–6 of adjusted Article 2F read as follows:

4. Each Party shall ensure that for the twelve-month period commencing on 1 January 2010, and in each twelve-month period thereafter, its calculated level of consumption of the controlled substances in Group I of Annex C does not exceed, annually, twenty-five percent of the sum referred to in paragraph 1 of this Article. Each Party producing one or more of these substances shall, for the same periods, ensure that its calculated level of production of the controlled substances in Group I of Annex C does not exceed, annually, twenty-five percent of the calculated level referred to in paragraph 2 of this Article. However, in order to satisfy the basic domestic needs of the Parties operating under paragraph 1 of Article 5, its calculated level of production may exceed that limit by up to ten percent of its calculated level of production of the controlled substances in Group I of Annex C as referred to in paragraph 2.

5. Each Party shall ensure that for the twelve-month period commencing on 1 January 2015, and in each twelve-month period thereafter, its calculated level of consumption of the controlled substances in Group I of Annex C does not exceed, annually, ten percent of the sum referred to in paragraph 1 of this Article. Each Party producing one or more of these substances shall, for the same periods, ensure that its calculated level of production of the controlled substances in Group I of Annex C does not exceed, annually, ten percent of the calculated level referred to in paragraph 2 of this Article. However, in order to satisfy the basic domestic needs of the Parties operating under paragraph 1 of Article 5, its calculated level of production may exceed that limit by up to ten percent of its calculated level of production of the controlled substances in Group I of Annex C as referred to in paragraph 2.

6. Each Party shall ensure that for the twelve-month period commencing on 1 January 2020, and in each twelve-month period thereafter, its calculated level of consumption of the controlled substances in Group I of Annex C does not exceed zero. Each Party producing one or more of these substances shall, for the same periods, ensure that its calculated level of production of the controlled substances in Group I of Annex C does not exceed zero. However:

i. Each Party may exceed that limit on consumption by up to zero point five percent of the sum referred to in paragraph 1 of this Article in any such twelve-month period ending before 1 January 2030, provided that such consumption shall be restricted to the servicing of refrigeration and air conditioning equipment existing on 1 January 2020;

14 of Decision XIX/6 notes that no later than 2015 the Parties would consider ''further reduction of production for basic domestic needs'' in 2020 and beyond. Under paragraph 13 of Decision XIX/6, the Parties will review in 2015 and 2025, respectively, the need for the ''servicing tails'' for industrialized and developing countries. The term ''servicing tail'' refers to an amount of HCFCs used to service existing equipment, such as certain types of air-conditioning and refrigeration appliances.

B. How Does the Clean Air Act Phase Out HCFCs?

The United States has chosen to implement the Montreal Protocol phaseout schedule on a chemical-by-chemical basis. In 1992, environmental and industry groups petitioned EPA to implement the required phaseout by eliminating the most ozone-depleting HCFCs first. Based on the available data at that time, EPA believed that the U.S. could meet, and possibly exceed, the required Montreal Protocol reductions through a chemical-by-chemical phaseout that employed a ''worst-first'' approach focusing on certain chemicals earlier than others. In 1993, as authorized by section 606 of the CAA, the U.S. established a phaseout schedule that eliminated HCFC–141b first and would greatly restrict HCFC–142b and HCFC–22 next, followed by restrictions on all other HCFCs and ultimately a complete phaseout (58 FR 15014, March 18, 1993; 58 FR 65018, December 10, 1993). EPA explained that its action modified the schedule contained in paragraphs (a) and (b) of section 605 (58 FR 65025). Paragraph (a) addresses use and introduction into interstate commerce, while paragraph (b) addresses production.

On January 21, 2003 (68 FR 2820), EPA promulgated regulations to ensure compliance with the first reduction milestone in the HCFC phaseout: the requirement that, by January 1, 2004, the U.S. reduce HCFC consumption by 35 percent and freeze HCFC production. In that rule EPA established chemical-specific consumption and production baselines for HCFC–141b, HCFC–22, and HCFC–142b. Section 601(2) states that EPA may select ''a representative calendar year'' to serve as the baseline for HCFCs. In the 2003 allocation rule, EPA concluded that because the entities eligible for allowances had differing production and import histories, no one year was representative for all companies. Therefore, EPA assigned an individual consumption baseline year to each company by selecting its highest ODP-weighted consumption year from among the years 1994 through 1997. EPA assigned individual production baseline years in the same manner. EPA also provided an exception allowing new entrants provided that they began importing after the end of 1997 but before April 5, 1999, the date the advanced notice of proposed rulemaking (ANPRM) was published. EPA believed that such small businesses might not have been aware of the impending rulemaking that would affect their ability to continue in the HCFC market.

The 2003 allocation rule apportioned production and consumption baselines to each company in amounts equal to the amounts in the company's highest ''production year'' or ''consumption year,'' as described above. It completely phased out the production and import of HCFC–141b by granting 0 percent of that substance's baseline for production and consumption in the table at § 82.16. EPA did, however, create a petition process to allow applicants to request very small amounts of HCFC–141b beyond the phaseout. The rule also granted 100 percent of the baselines for production and consumption of HCFC–22 and HCFC–142b. EPA was able to allocate allowances for HCFC–22 and HCFC–142b at 100 percent of baseline because, in light of the concurrent complete phaseout of HCFC–141b, the allocations for HCFC–22 and HCFC–142b, combined with projections for consumption of all other HCFCs, remained below the 2004 cap of 65 percent of the U.S. baseline.

EPA allocates allowances for specific years; they are valid between January 1 and December 31 of a given control period (*i.e.,* calendar year). Prior to this rulemaking, EPA had not allocated any HCFC allowances for year 2010 or beyond. The regulations at 40 CFR 82.15(a) and (b) only permitted the production and import of HCFC–22 and HCFC–142b for the years 2003–2009. Through this rulemaking, EPA is now allocating calendar-year allowances for HCFC–142b and HCFC–22 to allow production and import during the 2010–2014 control periods. Absent the grant of calendar-year allowances, § 82.15 would prohibit their production and import after December 31, 2009. This final rule allows for continued production and consumption, at specified amounts, of HCFC–142b, HCFC–22, and other HCFCs not previously granted allocations, for the 2010–2014 control periods.

In the United States, an allowance is the unit of measure that controls production and consumption of ozone-depleting substances. An allowance represents the privilege granted to a company to produce or import one kilogram (not ODP-weighted) of the specific substance. EPA establishes company-by-company baselines (also known as ''baseline allowances'') and allocates calendar-year allowances equal to a percentage of the baseline for specified control periods. EPA has allocated two types of calendar-year allowances—production allowances and consumption allowances—for HCFC–22 and HCFC–142b. ''Production allowance'' and ''consumption allowance'' are defined at 40 CFR 82.3. To produce an HCFC for which allowances have been allocated, an allowance holder must expend both production and consumption allowances. To import an HCFC for which allowances have been allocated, an allowance holder must expend consumption allowances. An allowance holder exporting HCFCs for which it has expended consumption allowances may obtain a refund of those consumption allowances upon submittal of proper documentation to EPA.

Since EPA is implementing the phaseout on a chemical-by-chemical basis, it allocates and tracks production and consumption allowances on an absolute kilogram basis for each chemical. Upon EPA approval, an allowance holder may trade allowances of one type of HCFC for allowances of another type of HCFC, with transactions weighted according to the ozone depletion potential (ODP) of the chemicals involved. Pursuant to section 607 of the Clean Air Act, EPA applies an offset to each HCFC trade by deducting 0.1 percent from the transferor's allowance balance. The offset benefits the ozone layer since it ''results in greater total reductions in the production in each year of * * * class II substances than would occur in that year in the absence of such transactions'' (42 U.S.C. 7671f).

Because EPA has allocated the same amount of allowances every year from 2004 to 2009—with minor changes reflecting permanent trades of baseline allowances—and because EPA tracks the production and consumption of all HCFCs (including those for which baselines are not allocated), the Agency can ascertain that the U.S. will remain comfortably below the aggregate HCFC cap through 2009. The 2003 allocation rule announced that EPA would allocate allowances for 2010–2014 in a

ii. Each Party may exceed that limit on production by up to zero point five percent of the average referred to in paragraph 2 of this Article in any such twelve-month period ending before 1 January 2030, provided that such production shall be restricted to the servicing of refrigeration and air conditioning equipment existing on 1 January 2020.

subsequent action and that those allowances would be lower in aggregate than for 2003–2009, consistent with the next stepwise reduction for HCFCs under the Montreal Protocol. EPA stated its intention to determine the exact amount of allowances that would be needed for HCFC–22 and HCFC–142b, bearing in mind that other HCFCs would also contribute to total HCFC consumption. EPA stated that it would likely achieve the 2010 reduction step by applying a percentage reduction to the HCFC–22 and HCFC–142b baseline allowances. EPA has monitored the market to estimate servicing needs and market adjustments in the use of HCFCs, including HCFCs for which EPA did not establish baselines in the 2003 allocation rule.

C. What Sections of the Clean Air Act Apply to This Rulemaking?

Several sections of the Clean Air Act apply to this rulemaking. Section 605 of the Clean Air Act phases out production and consumption and restricts the use of HCFCs in accordance with the schedule set forth in that section. Section 606 provides for acceleration of the schedule in section 605 based on an EPA determination regarding current scientific information or the availability of substitutes, or to conform to any acceleration under the Montreal Protocol. EPA has previously accelerated the section 605 schedule through a rulemaking published December 10, 1993 (58 FR 65018). Through this action, EPA is further accelerating the HCFC production and consumption phaseouts in section 605(b)–(c).

Section 606 provides authority for EPA to promulgate regulations that establish a schedule for production and consumption that is more stringent than what is set forth in section 605 if: ''(1) Based on an assessment of credible current scientific information (including any assessment under the Montreal Protocol) regarding harmful effects on the stratospheric ozone layer associated with a class I or class II substance, the Administrator determines that such more stringent schedule may be necessary to protect human health and the environment against such effects, (2) based on the availability of substitutes for listed substances, the Administrator determines that such more stringent schedule is practicable, taking into account technological achievability, safety, and other relevant factors, or (3) the Montreal Protocol is modified to include a schedule to control or reduce production, consumption, or use of any substance more rapidly than the applicable schedule under this title.'' It is only necessary to meet one of the three criteria. In this instance, all three criteria have been met with respect to the schedule for phasing out production and consumption of HCFC–22 and HCFC–142b.

The first criterion allows the Administrator, based on an assessment of credible current scientific information, to determine that a more stringent schedule may be necessary to protect human health. The recent scientific findings by the Montreal Protocol's Science Assessment Panel, *Science Assessment of Ozone Depletion: 2006,* available in the docket for this rulemaking, were initially presented to the Parties to the Montreal Protocol in October 2006 at the 18th Meeting of the Parties in New Delhi, India. The Assessment was published in March 2007, and hard copies were available to the Parties in advance of the 26th Open-Ended Working Group Meeting held in June 2007 in Nairobi, Kenya. The assessment report shows that notwithstanding the evidence of a healing of the ozone layer, there continue to be human health and environmental effects associated with ozone depletion and that recovery continues to rely on a successful total global phaseout of ODS. Specifically, the report concludes that the date when equivalent effective stratospheric chlorine (EESC) relevant to mid-latitude ozone depletion returns to pre-1980 levels is 2049, which is five years later than projected in the previous Scientific Assessment. The later return is primarily due to higher estimated future emissions of CFC–11, CFC–12, and HCFC–22. The report includes scenarios where additional actions taken by the Parties would result in a faster recovery. While these specific scenarios (including complete phaseout by the end of that calendar year) were not all necessarily deemed to be practical, they demonstrated to the Parties what could be achieved with additional actions. The percentage reduction in EESC attributed to HCFCs is larger than previously reported and the scenarios showed that reducing HCFCs could have a greater effect than reducing any of the other compounds or groups of compounds given their current production levels. These findings contributed in part to the willingness of many Parties, including the United States, to consider the adjustments to the Montreal Protocol's HCFC phaseout schedule that were successfully negotiated in September 2007. EPA published a notice of data availability (72 FR 35230) concerning the potential changes in HCFC consumption from proposed adjustments to the Montreal Protocol submitted by the United States for consideration at the 19th Meeting of the Parties held in Montreal September 2007. The data made available through that notice were specific to the United States' proposal but had general applicability to the other five proposals submitted by various Parties to the Protocol and to what was ultimately agreed to by the Parties at the 19th Meeting. EPA believes the recent scientific findings on stratospheric ozone depletion, together with the well-established relationship between ozone depletion and increased risk of human health effects, support a determination that a more stringent HCFC phaseout schedule may be necessary to protect against such effects.

The second criterion allows the Administrator to determine that a more stringent schedule is practicable based on the availability of substitutes for ODS, taking into account technological achievability, safety, and other relevant factors. Since the establishment of the domestic chemical-by-chemical phaseout in the United States, advances by industry have resulted in the availability of substitutes for a large variety of end-use applications. Under section 612 of the CAA, EPA's Significant New Alternatives Policy (SNAP) program evaluates alternatives for ODS and lists as acceptable those that do not pose a greater risk to human health than other substitutes that are currently or potentially available. Alternatives include chemical replacements, product substitutes, and alternative technologies. The SNAP program has reviewed approximately 400 alternatives to date. EPA makes information available concerning potential alternatives for various end-use applications. Suitable alternatives—in many cases, multiple suitable alternatives—are available for all end-use applications for the HCFCs considered in this action. However, as discussed later in this preamble, EPA has learned of three niche end use applications where substitutes exist but other factors may be affecting the timing of their implementation. Because sufficient quantities of HCFC have already been produced for these uses, EPA took this information into account in evaluating the schedule for phasing out use under section 605(a) rather than the schedule for phasing out production under section 605(b)–(c). The use phaseout is discussed below.

The SNAP program has reviewed substitutes to ODS for the following industrial sectors:

- Refrigeration & Air Conditioning
- Foam Blowing Agents

- Cleaning Solvents
- Fire Suppression and Explosion Protection
- Aerosols
- Sterilants
- Tobacco Expansion
- Adhesives, Coatings & Inks

HCFCs have been used in all of these industrial sectors except for tobacco expansion. Within the air conditioning and refrigeration industrial sector, end uses where HCFCs have been used include chillers, industrial process refrigeration systems, industrial process air conditioning, bus and passenger train AC, ice machines, very low temperature refrigeration, ice skating rinks, cold storage warehouses, refrigerated transport, retail food refrigeration, household appliances, and residential and light commercial air conditioning and heat pumps. The SNAP program lists substitutes for each of these end uses.

A wide range of alternative refrigerants found acceptable under EPA's SNAP program are available in the AC and refrigeration sector. Hydrofluorocarbons (HFCs) and HFC-based alternatives, including R–134a, R–410A (composed of HFC–32/HFC–125), R–407C (composed of HFC–32/HFC–125/HFC–134a), R–404A (composed of HFC–125/HFC–143a/HFC–134a), and R–507A (composed of HFC–125/HFC–143a), are currently used in a variety of refrigeration and AC equipment. In addition, other refrigerants such as CO_2, ammonia, and hydrocarbons are available as alternatives. The pace of transition to equipment using these alternatives has varied by industry and type of equipment. Appendix A to the Servicing Tail report found in the docket to this rule presents EPA's estimates of the market penetration of alternatives for each end use within this sector.

Some mobile AC equipment has been using alternatives since the early 1990s, with some buses and trains using R–134a, and some heavy rail cars using R–407C. Stationary AC equipment using R–410A has been commercially available since 1996, and is expected to dominate the U.S. residential market in the near future. The projections in the Servicing Tail report are based on information regarding the transition to alternatives. New sales of residential AC systems are modeled such that only 10 percent of the market adopts alternatives by the end of 2008 and the remainder of the market for new equipment transitions completely by the end of 2009. Consumers naturally prefer equipment, services, and refrigerant that costs less. Previously, R–22 has been cheaper than alternatives. However, the economics are changing and R–410A pricing is beginning to match that of R–22. Most residential AC equipment purchasers now are buying equipment using R–410A.

Retail food refrigeration end-uses have been transitioning to alternatives more quickly than AC end-uses. EPA estimates that half of the refrigerant used in existing stores is R–22 but only 5% of new refrigeration systems installed in 2009 were charged with R–22. Advanced refrigeration technologies (*e.g.,* distributed systems and secondary loop systems) represent an estimated 40% of new equipment sales and such systems installed in the last ten years have been charged with HFC refrigerants.

As mentioned in the Servicing Tail report, several AC and refrigeration equipment manufacturers have indicated that they have discontinued production of new equipment that uses R–22. These actions are consistent with the actions taken in the mid-1990s, when the refrigeration and AC industries phased out CFC refrigerants from new production chillers, refrigerators, motor vehicle air conditioners, and other products two or more years before the 1996 CFC consumption phaseout.

Alternatives are available in the other sectors as well. For example, numerous alternatives exist for HCFC–22 and HCFC–142b for foam blowing agents, including water, Ecomate®, saturated light hydrocarbons (*e.g.,* cyclopentane), CO_2, HFO–1234ze, and a number of HFCs or HFC blends. In place of HCFCs as propellants, most aerosol cans use saturate light hydrocarbons (*e.g.,* propane, n-butane, isobutane) or dimethyl ether where flammability is not a major concern or HFCs or compressed gases (*e.g.,* CO_2, nitrogen) where flammability is a concern. (A complete list of substitutes is available at *http://www.epa.gov/ozone/snap/lists/index.html*.) EPA believes that given the availability of substitutes, a more stringent phaseout schedule for HCFC–22 and HCFC–142b is now practicable.

The last criterion is that the Montreal Protocol be modified to include a schedule to control or reduce production, consumption, or use of any substance more rapidly than section 605 would dictate. The United States submitted a proposal to adjust the Montreal Protocol in March 2007 to accelerate the phaseout of HCFCs. This was one of six proposals considered by the Parties at their 19th Meeting. Due to the efforts of the United States and others, the Parties agreed to adjustments that result in a more aggressive phaseout schedule for both developed and developing countries. Therefore, this third criterion has been met. Through this action, EPA is incorporating in its regulations a schedule that reflects the 2007 Montreal Adjustment. While section 606 is sufficient authority for this acceleration of the section 605 phaseout schedule, section 614(b) of the Clean Air Act provides that in the case of a conflict between the Act and the Protocol, the more stringent provision shall govern. Thus, section 614(b) requires the Agency to establish phaseout schedules at least as stringent as the schedules contained in the Protocol. To meet the 2010 stepdown requirement, EPA is allocating HCFC allowances for the years 2010 through 2014 at a level that will ensure the aggregate HCFC production and consumption will not exceed 25 percent of the U.S. baselines.

In addition to implementing the 2007 Montreal Adjustment, this rule also addresses provisions in section 605 of the Clean Air Act that relate to use and introduction into interstate commerce of class II substances. This action completes EPA's implementation (begun in 1993) of the section 605 provisions on use of class II substances. EPA is also promulgating regulatory language to reflect the section 605 provisions on introduction into interstate commerce of class II substances. EPA previously addressed the provisions concerning use of class II substances in a 1993 rulemaking that accelerated the phaseout schedule for HCFC–22 and HCFC–142b (58 FR 15014, 58 FR 65018). The intent of the 1993 rulemaking was to accelerate not only the production and consumption schedule, but also the use restrictions for those two substances under the authority of section 606(a)(1) and (2). In the March 18, 1993, notice of proposed rulemaking, EPA stated that the effect of this acceleration was ''to prohibit the use of the chemicals (virgin material only) for any use except as a feedstock or as a refrigerant in existing equipment as of January 1, 2010'' (58 FR 15028). EPA noted in the December 10, 1993, final rulemaking that ''HCFC restrictions and the approach included in this final rule have not changed from those proposed by the Agency in March'' (58 FR 65028). The regulatory provisions included with that notice, however, did not control use directly, but instead banned production and import for most uses. This action completes the prohibitions contemplated in the 1993 rule by adding to the regulatory text the restriction on use as well as the corresponding prohibitions on introduction into interstate commerce.

EPA is providing exceptions to this ban for medical equipment and thermal expansion valves, for which the practicability of substitutes remains an issue. EPA is also clarifying its interpretation of the section 605(a) restrictions on use and introduction into interstate commerce.

III. Summary of This Final Action

In this action, EPA is amending the existing regulations to implement the next major milestone in the HCFC phaseout. As a Party to the Montreal Protocol, and having ratified the Montreal Protocol and all of its amendments, the United States is required to decrease its amount of HCFC consumption and production to 25 percent of the U.S. baseline by 2010. Our domestic chemical-by-chemical approach results in differing schedules for the phaseout of individual HCFCs. EPA believes that the chemical-by-chemical allocation of HCFC allowances ensures that the United States continues to maintain an overall HCFC production and consumption level that is below the 2010 cap specified by the September 2007 Montreal Adjustment, while at the same time ensuring that servicing needs consistent with section 605(a) of the Clean Air Act and EPA's implementing regulations continue to be met. Thus, the aggregate allowances for all U.S. HCFC consumption in the years 2010–2014 do not exceed 3,810 ODP-weighted metric tons (25 percent of the aggregate U.S. consumption baseline) annually and the aggregate allowances for all U.S. HCFC production in the years 2010–2014 do not exceed 3,884.25 ODP-weighted metric tons (25 percent of the aggregate U.S. production baseline) annually.

To meet the 2010 cap for the 2010–2014 control periods, EPA is maintaining its past practice of apportioning company-specific production and consumption baselines for individual HCFCs, and allocating a certain percent of that baseline in an amount necessary to meet demand. For HCFC–22, that percentage decreases on an annual basis to reflect a projected decrease in demand as well as to promote recycling and reclamation, which in turn should prevent shortages that might otherwise occur upon the stepdown in 2015. This approach was discussed briefly in the proposal (73 FR 78691) and was supported in comments to the Agency. For HCFC–141b, HCFC–22, and HCFC–142b, EPA is adjusting the previously established company-specific baselines to reflect (1) permanent inter-company transfers of baseline allowances for a particular HCFC and (2) changes to the names of entities identified in the tables at § 82.17 and § 82.19. These adjustments do not reflect inter-pollutant transfers occurring on an annual basis. For 2010–2014, given the previous phaseout of HCFC–141b, EPA will continue to allocate zero percent of the HCFC–141b baseline, and allow only limited amounts of production via the existing EPA petition process.[5] EPA is allocating an annually declining percentage of baseline for HCFC–22 ranging from 41.9 percent in 2010 to 26.1 percent in 2014 and is allocating 0.47 percent of baseline for HCFC–142b in all years 2010–2014 to meet the U.S. obligations under the Montreal Protocol and to reflect the use restrictions under section 605(a) of the CAA while providing for servicing needs consistent with those restrictions.

EPA is also implementing production and consumption controls for HCFC–123, HCFC–124, HCFC–225ca, and HCFC–225cb, which did not have baselines prior to this rulemaking. EPA is apportioning company-specific baselines for these HCFCs based on production and import data available to the Agency. For control periods 2010–2014, EPA is granting 125 percent of baseline for these HCFCs.

The allocations for HCFC–22, HCFC–142b, HCFC–123, HCFC–124, HCFC–225ca, and HCFC–225cb reflect EPA's analysis of market data for these chemicals. The allocation levels for these HCFCs meet the need for virgin material and avoid shortages during the affected control periods, as well as accommodate some market growth for the HCFCs for which EPA is allocating allowances for the first time in this action.

For the years 2010–2014, the Montreal Protocol allows a cap of 3,810 ODP tons for U.S. HCFC consumption (resulting in an aggregate of 19,050 ODP tons over the five control periods) and 3,884.25 ODP tons for U.S. HCFC production (resulting in 19,421.25 ODP tons over five control periods). Of that amount, EPA is allocating allowances totaling 12,355.5 ODP tons of consumption and 11,621.43 ODP tons of production over the five control periods. These allocations represent 65 percent of the consumption cap and 60 percent of the production cap established by the Montreal Protocol for 2010–2014. The difference between the cap and the total allocation reflects EPA's estimate of the need for HCFCs during these control periods. It also will accommodate minor adjustments in the market, particularly to allow potential market growth for HCFCs that have not been produced or imported since 2003 (and which are therefore not reflected here). As discussed in more detail in Section IV.B.3, it will also encourage greater reclamation of recovered refrigerant and will facilitate preparation for the 2015 phasedown in the consumption cap to 10% of baseline.

This action also changes two other components of the HCFC allowance allocation framework. First, to reflect the September 2007 Montreal Adjustments, EPA is adjusting the amount of Article 5 allowances for control periods 2010–2019. Second, EPA is completing its implementation of the provisions in section 605 of the Clean Air Act that relate to use and introduction into interstate commerce of class II substances. As discussed in Section VI.D. below, EPA is excepting the use of HCFC–22 in thermostatic expansion valves and in medical equipment from the accelerated restrictions on introduction into interstate commerce and use. EPA also is providing a limited grandfathering for use of HCFCs in refrigeration appliances that have not yet been ''manufactured'' under EPA's interpretation of that term but whose components have been specified for installation under a building permit or contract dated on or before January 1, 2010.

This final rule combined with the accompanying final rule titled ''Protection of Stratospheric Ozone: Ban on the Sale or Distribution of Pre-Charged Appliances'' (EPA Docket: EPA–HQ–OAR–2007–0163) (referred to in this preamble as the Pre-Charged Appliances rule) will have the following effects on the sale, distribution, and installation of air-conditioning and refrigeration products charged with HCFC–22, HCFC–142b, or blends containing one or both of these substances.

- Sale and distribution of *appliances* pre-charged with HCFC–22 or HCFC–142b is allowed for self-contained, factory-charged appliances such as pre-charged window units, packaged terminal air conditioners (PTACs), and some commercial refrigeration units, if manufactured *before* January 1, 2010. The pre-charged appliance rule does not prohibit sale and distribution of pre-2010 inventory (*i.e.,* stockpiled inventories).
- Sale and distribution of *appliances* pre-charged with HCFC–22 or HCFC–142b is not allowed for self-contained, factory-charged appliances such as pre-charged window units, PTACs, and some commercial refrigeration units, if manufactured *on or after* January 1,

[5] EPA did not propose, and is not implementing in this action, any changes to the HCFC–141b petition process for the 2010–2014 control periods.

2010. This prohibition which is contained in the pre-charged appliance rule, applies regardless of when the refrigerant was produced and whether it is virgin or reclaimed. Under the allocation rule, neither stockpiled HCFC–22 produced prior to January 1, 2010, nor new HCFC–22 produced after that date can be used to manufacture new appliances on or after January 1, 2010.

- Sale and distribution of appliance *components* pre-charged with HCFC–22 or HCFC–142b is allowed if the components (*e.g.* condensing units, line sets, and coils that are charged with refrigerant) were manufactured before January 1, 2010. The pre-charged appliance rule does not prohibit sale or distribution of pre-2010 inventory (*i.e.,* stockpiled inventories).
- Pre-charged *components* manufactured before January 1, 2010, may be used to service appliances manufactured before January 1, 2010, but may not be assembled to create new appliances unless there is *no* use of virgin HCFC–22 or HCFC–142b, in the components or otherwise. The allocation rule prohibits use of virgin HCFC–22 and HCFC–142b in manufacturing new appliances.
- There is *no* exemption from the pre-charged appliance rule for the sale or distribution of pre-charged appliances and pre-charged components that are charged with reclaimed HCFC–22 or HCFC–142b refrigerant. In other words, the provisions banning sale and distribution apply equally regardless of whether the appliances or components contain virgin or reclaimed refrigerant.
- Under the allocation rule, *virgin HCFC–22 or HCFC–142b may only be used to service existing appliances.* Virgin HCFC–22 and HCFC–142b may not be used to manufacture new pre-charged appliances and appliance components. Virgin HCFC–22 and HCFC–142b also may not be used to charge new appliances assembled onsite on or after January 1, 2010, though new appliances (not pre-charged) may be charged with reclaimed refrigerant.
- EPA is providing an *exception* to the allocation rule that allows virgin HCFC–22 to be used in the onsite ''manufacture'' of appliances for a particular project between January 1, 2010, and December 31, 2011, if the components have been specified for use at that project under a building permit or contract dated before January 1, 2010.
- Under the allocation rule, HCFC–22 produced prior to January 1, 2010, may be used until January 1, 2015, for the manufacture of thermostatic expansion valves (TXVs).
- The sale and distribution of *used appliances* is not affected by either rule.

IV. Allocation of Allowances for the 2010–2014 Control Periods

A. Baselines for HCFC–22 and HCFC–142b Allowances

In the proposed rule, EPA presented five options for allocating HCFC–22 and HCFC–142b allowances for the control periods 2010–2014: (1) Allocating a percentage of the baseline production and consumption allowances (see 40 CFR 82.17 and 82.19 respectively), with or without considering any intra- and/or inter-pollutant transfers that resulted in a different amount of production or consumption for a specific HCFC; (2) allocating allowances based on evaluation of the most recent three years of production, import, and/or export data as reported to EPA; (3) allocating allowances based on an evaluation of past sales of HCFCs by allowance holders by considering how the HCFCs were ultimately used (*e.g.,* servicing refrigeration or air-conditioning vs. original manufacture of refrigeration or air-conditioning equipment and foam blowing); (4) allocating allowances based on aggregated ODP tons; or (5) allocating a total amount of allowances and allowing for purchase by establishing an auction system.

As discussed in the proposed rule, each of these five methods offers advantages and disadvantages for potential allowance holders that vary according to whether a particular entity is predominantly a producer or importer; whether it currently sells HCFC–22 and HCFC–142b to original equipment manufacturers, wholesalers, retailers, or companies that service appliances; whether the portion of its business that is ODS-based is expanding or contracting as the next major milestone in the phaseout approaches; its liquidity; whether it holds both HCFC–142b and HCFC–22 allowances and/or engages in inter-pollutant transfers; and whether it sold HCFCs for applications that do not lend themselves to servicing. Without regard to the practices of individual entities, each of the allocation schemes also offers advantages and disadvantages associated with the ease of implementation and other administrative burdens.

In this final action, EPA is finalizing option 1 by allocating a percentage of the baseline allowances (§§ 82.17 and 82.19) for HCFC–22 and HCFC–142b. As discussed in Section IV.A.2. of the preamble, EPA is modifying the baseline allowances through the consideration of permanent inter-company baseline transfers for the same HCFC but is not accounting for inter-pollutant transfers within a single company that resulted in a different amount of production or consumption for a specific HCFC on an annual basis.

Of all the options, applying a uniformly smaller percentage of the existing baseline as the method for allocating HCFC–22 and HCFC–142b allowances is the least disruptive to the current market and best ensures a continued smooth transition away from ozone-depleting substances. This system closely matches the current HCFC allocation method, with which producers and importers are familiar. EPA provided notice of this option in the preamble to the 2003 allocation rule by indicating that EPA ''intends to achieve this reduction step through notice and comment prior to 2010 and will likely implement the reduction by simply listing a percent of baseline allowances to be granted in § 82.16 for the years after 2009'' (68 FR 2823). Many commenters have informed EPA that, based in part on this statement, producers and importers have aligned their business activities around the baselines set forth in the 2003 allocation rule. Such planning includes not only ensuring capacity to produce or import these HCFCs but also the establishment and maintenance of relationships with distributors and contractors.

Second, on a related note, EPA agrees with a comment that this approach is the most consistent with the existing framework for recordkeeping and reporting. This option utilizes EPA's existing ODS tracking system and does not require additional one-time or periodic reporting obligations that may be necessary under the other options. EPA uses information from quarterly, annual, and other periodic reporting requirements to monitor consumption, production, imports, and exports of all HCFCs. EPA also uses this information to ensure companies' compliance with regulatory requirements and to develop reports that are requested by the Parties to the Montreal Protocol, including reports ascertaining U.S. compliance with the phaseout caps. The information enables EPA to monitor production and consumption for all HCFCs, including HCFCs for which baselines have not yet been established and for which allowances have not yet been allocated. Option 1 limits administrative burden for allowance holders, and additionally, can be implemented more quickly than other options.

Third, EPA prefers option 1 because it applies an established and well-vetted baseline. All of the other options would require the Agency to disregard the

existing baseline in its entirety and rely on another basis for allocating production and consumption allowances. This would minimize the value of establishing a baseline and lead to market uncertainty. EPA seeks instead to minimize unanticipated changes and prevent market disruptions. EPA, however is making minor changes to company baseline allowances to reflect inter-company baseline trades, as discussed below.

Most commenters preferred option 1 for the reasons described above. Some commenters, however, favored the alternative approaches. The second-most-favored allocation method was option 5, under which EPA would auction allowances. Commenters favoring this option preferred it because it could potentially allow for new entrants into an HCFC–22 market that those commenters say is dominated by a small number of large companies. These commenters typically disagreed with option 1 because it would favor the existing set of stakeholders. Option 1 does not automatically prohibit new entrants, as they could acquire allowances from existing allowance holders under the existing regulatory framework. While EPA acknowledges that not having allowances can be a barrier to entry into this market, EPA does not believe it is necessary or appropriate to adopt a particular regulatory approach specifically for the purpose of encouraging new entrants at this point in a phaseout.

In the July 20, 2001, proposed HCFC allocation rule, EPA expressed skepticism about promoting new entrants into the HCFC market: ''Encouraging new companies to join the business after the ANPRM would counter the efforts of moving people out of HCFCs into more environmentally sound substitutes. EPA believes that any new entrants following the ANPRM publication would not be precluded from entering the market, because they could purchase allowances from existing allowance holders who may not intend to use their full amount of allowances. They also have the opportunity to import recovered HCFCs through EPA's petition system or deal in substitutes to HCFCs, which would benefit the ozone layer and provide longer-term business security. Accordingly, EPA believes that the market will sufficiently allow for any new entrants after April 5, 1999, as appropriate.'' (66 FR 38073). In the 2003 final rule, EPA provided a limited exemption for companies that began importing HCFCs after the first stakeholder meeting in 1997 but before the ANPRM publication date, after which they would have had reason to know of an imminent rulemaking allocating allowances based on historical production and importation. EPA did not extend this exemption further because once public notice was given via the ANPRM, ''businesses that desired an allocation of HCFC allowances would have known the risks of jumping into the business at this juncture.'' (66 FR 38073). Since that time eight years ago, access to information and knowledge of the risks regarding entering the HCFC–22 market have only increased. There have been new entrants to the market, as evidenced by commenters seeking allocation rights who were not in operation in 2003. These entities have entered the market by purchasing consumption allowances, as EPA predicted they could back in 2003. These entities can continue to purchase consumption allowances or import substitutes for HCFCs. As the market continues to decrease, EPA does not believe that providing consumption allowances to these or other new entities is necessary to prevent disruption to the continued servicing of existing equipment. Given EPA's intent to phase down, and ultimately phase out, the use of HCFC–22, consistent with the requirements of the CAA and obligations under the Montreal Protocol, EPA believes it is justified in continuing to allocate only to those entities who participated in the market at the initial stages as well as those that have entered the market by purchasing HCFC–22 baseline allowances in accordance with the established practices. EPA therefore does not believe that choosing this option for the purpose of opening up the market to new entrants is appropriate at this time as it may create disruption to the existing regulatory framework.

EPA also suggested, in option 4, that it could allocate allowances on an ODP-ton-weighted basis, authorizing allowance holders to consume or produce any combination of HCFC up to that ODP limit. Only one commenter supported this option, saying it would be more closely aligned with the requirements of the Montreal Protocol, which established a total ODP cap, and would more closely approximate an unregulated market. Furthermore, EPA would not need to predict the supply and demand for individual HCFCs. The commenter recognized, though, that it would have been better to establish such a system in the 2003 allocation rule and that it would be more difficult to implement today. At this point in the phaseout, EPA does not believe that it would be appropriate to switch to an ODP-weighted allocation. EPA raised, and rejected, this option in 2003 when it initially established baselines and allocated production and consumption allowances for HCFCs. In 2003, EPA applied a ''worst first'' approach to the phaseout of HCFCs and set limits only on HCFC–141b, HCFC–22, and HCFC–142b. Moving to an ODP-weighted allocation system at this point would disrupt the market and not reflect the market decisions made between 2003 and 2009.

Finally, options 2 and 3 received limited support from commenters. EPA is not persuaded that changing the baseline allowances through any of the methods presented in those options would be more appropriate than the manner proposed under option 1. EPA discusses comments on these options in the response to comments document, available in the docket for this rulemaking.

After considering comments, EPA is allocating a percentage of the baseline allowances for HCFC–22 and HCFC–142b, per option 1, in this final rule. The specific percentages are discussed in Section IV.C. below.

1. Adjusting the Baseline for Inter-company and Inter-pollutant Transfers

Sections 607(b) and (c) of the Clean Air Act permit inter-pollutant and inter-company transfers of allowances, respectively. Inter-pollutant transfers are the transfer of an allowance of one substance to an allowance of another substance on an ODP-weighted basis. Inter-company transfers are transfers of allowances for the same ODS from one company to another company. Section 607(c) also authorizes inter-company transfers combined with inter-pollutant transfers, so long as the requirements of both are met. The corresponding regulatory provisions appear at 40 CFR 82.23.

EPA proposed in allocation option 1 to establish a percentage of baseline allowances for each HCFC ''*with or without* considering any permanent baseline transfers *and/or* inter-pollutant transfers that resulted in a different amount of production or consumption for a specific HCFC included'' (emphasis added). The company-specific baselines in the proposed regulatory text did, though, reflect adjustments resulting from approved inter-company transfers of baseline allowances (*i.e.,* permanent rather than calendar-year allowances) as well as intra-company, inter-pollutant transfers. EPA received multiple comments on how transfers of allowances should be reflected in company baselines. All comments on the issue supported

adjusting the baselines to reflect inter-company transfers. Most commenters were opposed, however, to adjusting a company's baseline to reflect inter-pollutant transfers occurring within that company. As discussed in this section, the final allocation reflects adjustments due to inter-company transfers but not inter-pollutant transfers.

In this final rule, EPA is updating the baselines for HCFC–22 and HCFC–142b to reflect name changes and permanent inter-company baseline transfers. Doing so reflects the changes in the marketplace that have occurred since the last time EPA addressed these baselines. As discussed above, permanent inter-company baseline transfers provide a mechanism for new entrants to join or expand in the HCFC–22 market and for other companies to expand their business. When EPA allocated allowances from 2004 to 2009, the Agency made minor changes to reflect such permanent trades of baseline allowances. EPA recognizes that in some cases entities are no longer actively involved in HCFC production, import, and/or export activities. EPA sought comment on whether it should retain the baselines for such entities or whether it should retire, auction, or redistribute the baselines among the active entities. EPA received only one comment on the issue, which favored EPA's preferred approach of retaining the baseline for those entities. The commenter noted that any allowances distributed to passive holders will find their way into circulation if needed. EPA agrees, as this has been a mechanism by which new entrants have entered the HCFC allocation system in the past.

Eight commenters opposed, and two commenters supported, the proposed adjustments to company baselines to reflect intra-company, inter-pollutant transfers. At issue is the fact that two companies have made inter-pollutant transfers with the apparent intent of reflecting them as permanent adjustments to their baseline allowances. Comments in opposition stated that adjusting the baselines to account for these permanent inter-pollutant transfers would inequitably redistribute allowances. Because allowance holders receive allocations based on a percentage of market share, increasing allowances to two companies has the effect of decreasing allowances to the other market participants. Thus, two companies would receive 38% and 912% more HCFC–22 allowances while the remaining companies would each receive 16% fewer HCFC–22 allowances. Commenters opposed to this redistribution requested that EPA utilize the 2003 baseline and claim it would be the most equitable way of reducing and allocating allowances among the entire community.

Three commenters also stated that allowing these transfers would unnecessarily disrupt the marketplace. They stated that stakeholders believed that EPA would allocate allowances in 2010–2014 by reducing allowances to all baseline allowance holders by an equal percentage and planned accordingly. They did not anticipate an increase in allowances to some companies resulting in a significant decrease for them. According to the commenters this shift in HCFC–22 allowances would require distributors to seek material from different suppliers than in the past and would thus disadvantage the allowance holders and their customers.

In the 2003 rule, both EPA and commenters to that rule recognized the flexibility that inter-pollutant and inter-company transfers provide. One company has utilized inter-pollutant transfers annually since 2006. Each year it has converted over 95% of its HCFC–142b allowances to HCFC–22 allowances to supply the servicing market. Allowing inter-pollutant transfers since 2006 has had little impact on the greater marketplace because it did not reduce the allocation levels for the other allowance holders. Commenters have demonstrated to EPA how treating inter-pollutant trades as permanent would negatively affect all other allowance holders. While the company that has historically relied on these transfers would be negatively affected by not treating its inter-pollutant transfers as permanent, EPA is concerned that reflecting such transfers in this rule would disrupt the entire market in 2010 and could encourage greater disruption in future control periods. Commenters pointed out that adjusting the baselines to reflect intra-company, inter-pollutant transfers could create incentives for future manipulation of the allocation system in anticipation of the future control periods. For example, in 2020 EPA will no longer be issuing HCFC–22 allowances. EPA has anticipated that companies with HCFC–22 allowances would no longer be in the HCFC market at that date if they did not hold allowances for other HCFCs that are still allowed after 2020. For example, if EPA were to establish an allocation framework based on inter-pollutant trades, in 2019 companies with HCFC–22 allowances could convert them all to allowances for HCFC–123 or some other compound for which allowances are available and thus remain in the market. As another example, in 2015 a producer or importer that previously had not participated in the HCFC–123 market could dominate that market by converting its HCFC–22 allowances in 2014 to HCFC–123 allowances. Given the different ODPs of HCFC–22 and HCFC–123, converting one allowance of HCFC–22 would result in 2.75 allowances of HCFC–123. Also, since companies hold many more HCFC–22 allowances than HCFC–123 allowances, converting those HCFC–22 allowances would have an overwhelming effect on the current HCFC–123 allowance holders. In effect, establishing allocations based on permanent inter-pollutant transfers would transform the U.S. HCFC phasedown from a chemical-by-chemical phaseout, as established under the ''worst-first'' approach in the 1993 rule, to an ODP-weighted phasedown. Under an ODP-weighted phasedown, allowance holders could permanently transfer their production and import of specific HCFCs so long as the total ODP cap is not affected. Companies that do not transfer their allowances, however, would remain holding a smaller percentage of the total ODP cap, and thus would be left with fewer allowances. The ODP-weighted method was rejected in both the 2003 rule and this rule, though EPA did take comment on it in the proposal, as discussed in the previous section.

Some commenters stated that modifying the baselines by taking into account intra-company, inter-pollutant transfers would be contrary to the Clean Air Act. One commenter argued that section 607 of the Clean Air Act allows EPA to approve inter-pollutant transfers of allowances only on a year-to-year basis. That commenter pointed to language in section 607(b) stating that EPA regulations are to permit ''a production allowance for a substance for any year to be transferred for a production allowance for another substance for the same year on an ozone depletion weighted basis.'' The commenter also discussed the legislative history of the 1990 Clean Air Act Amendments.

After considering the language of section 607 and the legislative history, EPA believes that section 607(b) is best read as permitting only year-by-year inter-pollutant transfers. Section 607(b) states that EPA's rules are to permit ''a production allowance for a substance for any year to be transferred for a production allowance for another substance for the same year.'' This language emphasizes the year-by-year nature of such transactions. No parallel language appears in section 607(c). That section does, however, provide that any

inter-pollutant transfers between two or more persons must meet the requirements of section 607(b). Hence, EPA interprets section 607 as requiring that all inter-pollutant transfers, whether occurring between companies or within a single company, be conducted on a yearly—and thus temporary—basis.

EPA has made past statements that are consistent with this interpretation. In the 2003 rule that established the allowance system for HCFCs (68 FR 2835), EPA stated: ''The permanent transfer of baseline allowances is a lasting shift of some quantity of a company's allowances to another company.'' EPA also indicated what would happen at the time of the next stepdown or phaseout date: ''[A]t the time of a reduction step or a phaseout of the substance, the current holder of baseline allowances that were received in a permanent transfer would be the person who would have them deducted.'' EPA decided in the 2003 rule to ''allow permanent transfers of baseline allowances with those allowances disappearing at the phaseout date for the specific HCFC, regardless of what inter-pollutant transfers had taken place'' (68 FR 2835). Further discussion of this issue appears in the response to comments document available from the docket.

In summary, this final rule reflects the changes in consumption and production baseline allowances from inter-company transfers but not inter-pollutant transfers. The resulting consumption baseline amounts for HCFC–22, HCFC–142b, and HCFC–141b are shown below in Table 3.

2. Meeting the Needs of Certified Reclaimers

Many commenters requested that EPA allocate allowances to certified reclaimers to ensure that they would be able to obtain the virgin HCFCs needed for mixing with recovered HCFCs during the reclamation process. Recovered refrigerant often contains contaminants, including air, water, particulates, acidity, chlorides, high boiling residues, and other impurities including other refrigerants. Reclamation is the re-processing and upgrading of a recovered controlled substance through such mechanisms as filtering, drying, distillation, and chemical treatment in order to restore the substance to the purity levels specified in Appendix A to 40 CFR part 82, subpart F (based on ARI Standard 700, ''Specifications for Fluorocarbon and Other Refrigerants''). While most of the contaminants can be efficiently removed to bring the purity to ARI Standard 700, removing cross-contamination from other refrigerants poses additional challenges due to their chemistry. One method of separating out other refrigerants is to pass the material through a distillation tower, potentially several times. Some reclaimers blend virgin material with cross-contaminated recovered material to bring the material up to ARI Standard 700. Reclaimers do not currently have a consumption baseline per se; however, a limited number of reclaimers that also are HCFC importers do have a consumption baseline. Therefore, generally reclaimers purchase virgin HCFC–22 from allowance holders in a manner similar to other HCFC users such as air-conditioning and refrigeration appliance manufacturers.

Forty-five commenters encouraged EPA to allocate HCFC–22 consumption allowances to reclaimers so that they would have improved access to virgin HCFC–22 which they could then blend with recovered HCFC–22. The comments stated in various ways that having allocations would (1) improve the economics of reclamation, (2) foster greater recovery, (3) foster greater reclamation, and (4) provide environmental benefits. The primary mechanism suggested by commenters was that EPA provide to reclaimers an amount equal to 10% of the total annual HCFC–22 allocation. This method would reduce the amounts that the existing allowance holders would otherwise have received by 10% and redirect those allowances to certified reclaimers. EPA would allocate that 10% among reclaimers based on the amount of material each company reclaimed in some prior year, as reported to EPA under existing section 608 requirements.

First, commenters in support of allocating consumption allowances to reclaimers stated that it would improve the economics of the reclamation industry. Reclamation through separation and distillation requires costly distillation towers that are energy-intensive, and thus expensive, to operate. Alternatively, reclaimers who practice blending must purchase virgin HCFC–22, often at market prices. These commenters stated that having allocation rights would allow reclaimers to import HCFC–22 at a lower cost and thus be able to sell reclaimed HCFC–22 at a price that is competitive with domestically produced or imported virgin HCFC–22.

Second, these commenters stated that acquiring less expensive virgin material could help defray other costs associated with refrigerant reclamation, thereby allowing them to reclaim more contaminated (*i.e.,* more economically marginal) refrigerant. One commenter stated that reclaimers have many tons of material in inventory that could be reclaimed through blending but that it currently cannot reprocess without virgin material at competitive prices.

Third, these commenters stated that allocations to reclaimers would increase refrigerant recovery rates. Reclaimers would be more financially able to accept slightly cross contaminated HCFCs from contractors and wholesalers without needing to assess additional fees on them to pay for destruction or fractional distillation. Removing this disincentive for returning contaminated material would encourage more recovery and discourage an incentive to vent refrigerant. One commenter estimated that allocations for reclaimers would result in as much as a 15% increase in recovered refrigerant within the first two years of allocations.

Finally, these commenters claimed an environmental benefit from encouraging these less expensive blending practices. They stated that blending reduces the need for fractional distillation, a process that utilizes 300 times more energy than blending and they observed that increased recovery means less refrigerant is vented into the atmosphere.

In addition to comments supporting allocation of consumption allowances to certified reclaimers, EPA also received two comments stating that allocations to reclaimers are not necessary and will not encourage greater recycling/reclamation in the marketplace. These commenters stated that (1) current reclamation capacity is sufficient to meet greater future demand; (2) separation and distillation technology currently exists, precluding the need for virgin HCFC–22 to reclaim recovered HCFCs; and (3) allocating allowances to reclaimers creates numerous administrative and practical challenges that were not presented for notice and comment.

EPA has previously detailed the importance of recovering and reusing HCFC–22 and the Agency strongly encourages increased recovery and either recycling or reclamation [6] of

[6] EPA has defined Recover, Recycle, and Reclaim at § 82.152 as follows: (1) *Recover* refrigerant means to remove refrigerant in any condition from an appliance and to store it in a external container without necessarily testing or reprocessing it in any way; (2) *recycle* refrigerant means to extract refrigerant from an appliance and clean refrigerant for reuse without meeting all of the requirements for reclamation. In general, recycled refrigerant is refrigerant that is cleaned using oil separation and singe or multiple passes through devices, such as replaceable core filter-driers, which reduce moisture, acidity, and particulate matter. These

HCFC–22. Section 608 of the CAA prohibits the intentional venting of HCFCs and EPA regulations require that they be recovered and then either recycled, reclaimed, or destroyed. The recovery and reuse of HCFCs prevents emissions to the atmosphere where they can deplete the stratospheric ozone layer and reduces the amount of virgin material that needs to be produced. Recovery becomes even more important in light of the 2015 Montreal Protocol phasedown step, when the U.S. HCFC consumption cap is reduced from 3,810 ODP-weighted metric tons to 1,524 ODP-weighted metric tons. In its report *The U.S. Phaseout of HCFCs: Projected Servicing Needs in the U.S. Air-Conditioning and Refrigeration Sector* (the ''Servicing Tail'' report), EPA estimates that to meet demand in 2015, recovered material will have to provide 29% of the total servicing demand for HCFC–22. A smooth transition for stakeholders—including continued availability of needed material for approved uses—has historically been an essential aspect of the U.S.'s success in implementing the Montreal Protocol and Clean Air Act requirements. EPA therefore has given much consideration to the suggestion raised by commenters. EPA does not believe, though, that allocating allowances to reclaimers in this rulemaking is necessary or the most appropriate action that EPA can take to foster greater recovery and reclamation of HCFC–22.

First, while commenters stated that providing allowances to reclaimers for HCFCs to be used in blending may foster increased recovery, EPA is concerned that it may foster unsustainable reclamation practices. Commenters stated that the blending ratios of virgin to recovered material range from 4:1 to as high as 10:1 (reflecting ''blending up'' recovered material from either 98.5% pure or 97.5% pure respectively, to 99.5%). The amount of virgin HCFC–22 produced or imported for all purposes, including for blending out impurities, will decrease significantly in 2015 when the overall HCFC cap declines from 25% of baseline to 10% of baseline. Production and import of virgin HCFC–22 for refrigerant uses will cease in 2020. Therefore, reclamation through separation and distillation will be more important in 2015 and absolutely necessary in 2020.

Second, allocating allowances to reclaimers would be a major change to the rule that would affect other stakeholders who have not had the opportunity to comment on the reclaimers' suggestion. Current allowance holders would have their allocations reduced 10% under this suggestion. If EPA were to finalize such a suggestion, EPA would want to provide other stakeholders an opportunity to comment. The suggestion raises several issues that would benefit from the notice and comment process. Specifically, issuing allowances to reclaimers raises questions of who would receive allowances, what the baselines would be, and how many allowances would be allocated. Other questions about how to implement this suggestion would include whether EPA should provide additional allowances to reclaimers that currently have baseline allocations, and whether EPA should set the baseline according to the amount reclaimed, as commenters suggested, or according to the amount recovered. Furthermore, some reclaimers currently manufacture and sell niche blend refrigerants that include HCFC–22 as a component, so EPA would need a mechanism to ensure that they would use the allocation for reclamation purposes, not for continued production of these blends. Different allocation methods offer advantages and disadvantages for potential allowance holders that vary according to the specific characteristics of the stakeholder. Thus, altering the final rule to accommodate the reclaimers' suggestion is not a simple matter. If EPA were to issue a supplemental proposal to provide an opportunity for all stakeholders to comment on these issues, the rule would likely be delayed beyond January 1, 2010. This would have a negative impact on all stakeholders who are depending on an allowance allocation for the production and import of HCFCs in 2010.

Third, EPA believes that it can take other actions in this rule that will foster recovery and reclamation while avoiding the complications raised by the commenters' suggestion. The same commenters that suggested allocations to reclaimers also noted that a constant allocation rate over the five control periods, as proposed, might discourage rather than foster reclamation. To avoid that, in this final rule EPA is allocating at 80% of the estimated demand in 2010 and is reducing the allocation over five years. EPA anticipates that the price of HCFC–22 will increase as allocations decrease and supply is reduced. Some of the economic constraints for recovery and reclamation will therefore loosen and more recovered material being held in inventory may be reclaimed. EPA believes that encouraging the market for recovered material in this way will be the most effective and appropriate mechanism that this current rulemaking can take to increase recovery and reclamation.

Overall, while EPA agrees that recovery practices should be improved and reclamation expanded, the Agency does not agree with commenters that EPA should provide allocations to reclaimers at this time as a way of doing so. Therefore, in this final rule, EPA is not adding new entrants based on their status as EPA-certified refrigerant reclaimers. EPA may consider such an approach when proposing future allocation rules.

B. Factors for Considering Allocation Amounts for HCFC–22 and HCFC–142b

EPA proposed to allocate HCFC–22 and HCFC–142b allowances based on the projected servicing needs for those compounds, taking into account the amount of those needs that can be met through recycling and reclamation. The proposed rule discussed and sought public comment on two alternate methods for determining how many allowances to allocate in 2010–2014 for these two compounds. One alternative that EPA rejected would have allocated the maximum amount of HCFC–22 and HCFC–142b that ensures compliance under the Montreal Protocol aggregate cap in 2010 without room for other HCFCs. The other alternative EPA rejected would have been to allocate a percentage of the aggregate HCFC consumption and production caps in 2010 for HCFC–22 and HCFC–142b equal to the same overall percentage of the aggregate HCFC consumption and production caps allocated for each substance in the 2003 allocation rule. Thus, in 2003, EPA allocated HCFC–22 allowances equal to 66 percent of 9,906 ODP tons and HCFC–142b allowances equal to 13 percent of 9,906 ODP tons. This second method would have applied the same percentages to the total allowable HCFC consumption level for 2010–2014 of 3,810 ODP-weighted metric tons (*i.e.* 2,515 ODP tons of HCFC–22 and 495 ODP tons of HCFC–142b). EPA rejected these alternate methods because they do not consider servicing needs and thus could result in shortages or oversupply of HCFC–22. Additional discussion of these alternatives is found in the proposed rule. Neither of these approaches received favorable comment. EPA

procedures are usually implemented at the field job site; (3) *reclaim* refrigerant means to reprocess refrigerant to all of the specifications in appendix A to 40 CFR part 82, subpart F (based on ARI Standard 700–1995, Specification for Fluorocarbons and other Refrigerants) that are applicable to that refrigerant and to verify that the refrigerant meets these specifications using the analytical methodology prescribed in section 5 of appendix A of 40 CFR part 82, subpart F.

therefore concludes that an approach based on the servicing need is most appropriate for allocating HCFC–22 and HCFC–142b allowances. Because it is important to promote greater use of recycled and reclaimed material in anticipation of the 2015 phasedown step, EPA does not intend to allocate the difference between the allocation authorized by the Parties of the Montreal Protocol and the allocation authorized by this rulemaking except under unforeseen extenuating circumstances.

1. The Importance of HCFC–22 Servicing Needs for Existing Equipment

HCFC–22 is the most widely used HCFC and the demand for its use in servicing existing equipment is the primary factor affecting EPA's estimate of production and consumption of HCFCs in the coming years. EPA has issued and sought comment on three versions of a draft report analyzing servicing demand for the HCFC appliances in the U.S. refrigeration and air-conditioning sector projected to be in service from 2010–2019. The Servicing Tail report focuses on air-conditioning and refrigeration appliances because such equipment will represent the bulk of the servicing need. In addition, the servicing exception to the use ban for HCFC–22 and HCFC–142b pertains only to use as a refrigerant in such equipment. Under section 605(a) of the Clean Air Act and EPA's implementing regulations, nearly all other uses of these two HCFCs are banned effective January 1, 2010. The projected servicing need for HCFC–22 in 2010 is approximately 62,500 metric tons (3,438 ODP-weighted metric tons), or approximately 90 percent of the consumption cap for all HCFCs in 2010, which is 3,810 ODP-weighted metric tons. HCFC–142b has primarily been used as a foam blowing agent, a use which will be phased out in 2010. The projected servicing need for existing refrigeration equipment containing HCFC–142b is extremely low: approximately 100 metric tons (7 ODP tons). EPA therefore has focused the analysis on HCFC–22 because that compound is the predominant HCFC in the installed base of air-conditioning and refrigerant equipment for which servicing in the U.S. will likely continue.

The Servicing Tail Report provides a classification of refrigeration and air conditioning equipment that continue to use HCFC–22. Refrigeration equipment can be categorized as: (1) Domestic refrigeration, (2) refrigerated transport, (3) industrial process refrigeration, and (4) commercial refrigeration. Domestic refrigeration includes household refrigerators, household freezers, combination refrigerator/freezer units, and water coolers. With the exception of certain older household freezers that use HCFC–22, this category typically does not use HCFCs or blends containing HCFCs. Refrigerated transport includes refrigeration used in equipment that moves products from one place to another and includes refrigerated ship holds, truck trailers (*i.e.,* reefer trucks), railway freight cars, and other shipping containers. Industrial process refrigeration systems are complex, customized systems used to cool process streams in the chemical, food processing, pharmaceutical, petrochemical, and manufacturing industries. This sector also includes industrial ice machines, equipment used directly in the generation of electricity, and ice rinks. Commercial refrigeration appliances that continue to use HCFC–22 can be further broken down into two end uses: cold storage warehouses and retail food refrigeration systems.

The majority of HCFC–22 equipment that is projected to be in use from 2010 onward will be air-conditioning applications, including window units, packaged terminal units, unitary air-conditioning, chillers, dehumidifiers, water and ground source heat pumps, and mobile air-conditioning in buses and trains. EPA projects that approximately 145.6 million units of all such types of HCFC–22 air-conditioning equipment will be in use in 2010, decreasing from 2010 levels by about 41 percent in 2015 and 86 percent in 2020. In addition, approximately 3.8 million units of HCFC–22 refrigeration equipment will be in use in 2010. The installed base of HCFC–22 refrigeration equipment is projected to decrease from 2010 levels by about 44 percent in 2015 and 75 percent in 2020.

EPA developed these estimates using its Vintaging Model. This model is the primary tool that EPA used to launch the analysis and form the basis for quantitative estimates of projected HCFC consumption. The Vintaging Model estimates the annual chemical emissions from industry sectors that have historically used ODS, including air conditioning, refrigeration, foams, solvents, aerosols, and fire protection. Within these industry sectors, there are over fifty independently modeled end uses. The model uses information on the market size and growth for each of the end uses, as well as a history and projections of the market transition from ODS to alternatives. As ODS are phased out, a percentage of the market share originally filled by the ODS is allocated to each of its substitutes. The model tracks emissions of annual ''vintages'' of new equipment that enter into operation by incorporating information on estimates of the quantity of equipment or products sold, serviced, and retired or converted each year, and the quantity of the compound required to manufacture, charge, and/or maintain the equipment. EPA's Vintaging Model uses this market information to build an annual inventory of in-use stocks of equipment and the ODS refrigerant and non-ODS substitutes in each of the end uses. Additional information on the Vintaging Model is available in the docket for this rulemaking.

On November 4, 2005, EPA published a Notice of Data Availability (70 FR 67172) making the first draft of the Servicing Tail report available for public review and comment. On September 29, 2006, EPA held a stakeholder meeting presenting the findings in the second draft of the Servicing Tail report along with other important information regarding the next major milestones in the HCFC phaseout. EPA solicited additional comments on the findings presented at the meeting. Representatives of air conditioning and refrigeration manufacturers, chemical producers, importers, reclaimers, industry associations, and environmental organizations commented on the projected amount of HCFCs needed to service the installed base of equipment and on the amounts expected to be available from reclamation. In June 2008, EPA prepared a third draft of the Servicing Tail report to: (1) Reflect the September 2007 Montreal Adjustment, in which the Parties agreed to adjust the stepwise reduction in 2010 from 65 percent of baseline to 75 percent of baseline for non-Article 5 Parties; (2) consider more recent production and consumption data in the United States; and (3) consider more recent trends in the air-conditioning and refrigeration sectors. EPA placed this revised draft report in the docket and accepted comments on it during the public comment period. These comments are discussed below.

The projections of past HCFC consumption, as presented in the Servicing Tail report, showed reasonable agreement with production, import, and export data reported to the Agency as required by 40 CFR 82.24 on a quarterly, annual, and transactional basis. EPA's analysis of the reported data confirms that the United States is satisfying its obligations as it phases out ODS and enables EPA to consider trends in the HCFC markets on a chemical-by-chemical basis. EPA also uses this information to submit an annual report

to the Ozone Secretariat as required by the Parties to the Montreal Protocol.

The projected servicing need for HCFC–22 in 2010 is 62,500 metric tons (3,438 ODP-weighted metric tons), or approximately 90 percent of the ODP-weighted consumption cap for all HCFCs in 2010, which is 3,810 ODP-weighted metric tons. EPA estimates that the servicing need for HCFC–22 will continue to decrease each year, and this final rule accounts for this by decreasing the allocation annually in each of the years 2011–2014. In contrast, the lead option in the proposed rule would have maintained a constant HCFC–22 allocation of 50,000 metric tons in 2010 through 2014. EPA recognizes that in 2013 and 2014 the proposed HCFC–22 allocation would surpass projected need. This is one reason why EPA is not allocating a constant amount of HCFC–22 allowances for the years 2010–2014. This final rule allocates at 20% below modeled need in 2010, decreasing to 26% below the modeled need in 2014, and relies on a consistent amount of reclaimed material to assist in meeting projected servicing needs. This approach is described in Section IV.B.3 below. Estimates of projected need are discussed in the Servicing Tail report found in the docket to this rule.

After review of comments and other data and estimates of HCFC servicing needs, EPA is not convinced that there is any reason to allocate above the need projected in the Servicing Tail report. In general, commenters supported the analysis presented in the Servicing Tail report. These repeated efforts to seek and incorporate comments on this analysis are important to the Agency, as the final rule bases the allocation amounts on the demand estimates it contains. While EPA received four additional comments on the Servicing Tail report in association with the proposed rule, the Agency is confident that this report accurately reflects the existing demand for HCFC–22 to support servicing of existing equipment.

Two commenters asked EPA to describe why it projects a decrease in post-2010 HCFC–22 demand of approximately 6,100 metric tons compared to the previous version of its Servicing Tail report. The decrease in projected HCFC–22 demand between the September 2006 and June 2008 reports is a direct result of updates made to EPA's Vintaging Model based on industry and stakeholder input as well as EPA's own research. EPA updated the Vintaging Model to reflect slight increases in HCFC–22 demand for chillers, cold storage, and industrial process refrigeration, and to reflect a decrease in HCFC–22 demand for dehumidifiers and a significant decrease in HCFC–22 demand for retail food end uses. These changes are part of EPA's ongoing effort to improve modeling assumptions. Model assumptions and results (such as consumption and emissions estimates) from major air-conditioning and refrigeration end-uses were presented at the April 2007 spring meeting of the Air-Conditioning, Heating, and Refrigeration Institute (AHRI). EPA revised the Vintaging Model based on research done in preparation for those meetings and based on comments received on those presentations. EPA subsequently used revised model output to update the June 2008 report.

One of the commenters also asked technical questions pertaining to the Vintaging Model and stated a belief that the change might be due to clerical errors in the 2008 report. Specifically, the commenter noted that (1) HCFC–22 chilling units expected to be in service in 2010 increase by 4,295% between the 2006 and 2008 reports; (2) 2010 unitary projections for HCFC–22 retail food refrigeration equipment increases 72% between the two most recent reports; and (3) there is a decrease of over two million dehumidifiers projected to be in service in 2010, which is the only significant projected equipment reduction. The increase in R–22 chiller units between the 2006 and 2008 reports is not a clerical error; it is the result of the addition of new chiller end-uses into the model and resulting analysis. Second, updates made to assumptions for the retail food end-uses in the model did result in an increase in equipment. However, despite the increase in the number of units, there was a decrease in stocks, growth rates, leak rates, and charge sizes which caused a decrease in R–22 demand post-2010. Finally, conversations with industry indicated that dehumidifier projections in the September 2006 report were too high. EPA discusses these questions raised by commenters in more detail in the response to comments document.

One commenter suggested that the current economic climate may slow the transition to new equipment, as owners seek to repair rather than replace existing equipment, an effect which the 2008 Servicing Tail report does not reflect. While the Servicing Tail report does not consider effects from the recent economic downturn, the servicing estimate does account for the practice of replacing components rather than installing new equipment. EPA notes that while the economic downturn may extend the time existing HCFC–22 equipment is used, it has also reduced the amount of HCFC-based equipment installed and hence will reduce future demand for servicing. EPA understands that the actual transition will not perfectly synchronize with the model year-by-year, whether for economic conditions, weather, or other events. However, the combination of reclaimed and virgin HCFCs should be sufficient to meet demand.

One commenter stated that there are significant barriers to a rapid transition to equipment that uses ozone-safe hydrofluorocarbons (HFCs) before and after January 1, 2010. EPA responds that the transition to HFC or other SNAP-acceptable substitute refrigerants is only required for new equipment. Furthermore, EPA's discussion with manufacturers of equipment and foam formerly reliant on HCFC–22 and HCFC–142b indicate that the industry has been working for some time to implement such alternatives by January 1, 2010. The January 1, 2010, date for restricting the use of newly production or imported HCFC–22 and HCFC–142b was established and published in the **Federal Register** on December 10, 1993 (58 FR 65018).

Using reported data, the June 2008 version of the Servicing Tail report, and comments provided at the September 2006 stakeholder meeting, submitted in subsequent correspondence (available in the docket), and provided in response to the proposed rule, the Agency has sufficient information to allocate a percentage of baseline allowances for HCFC–22 and HCFC–142b for production and consumption in 2010–2014 for servicing needs. The specific percentage of baseline for each of the affected compounds is discussed below.

2. Meeting Servicing Needs With Virgin and Reclaimed Material

The Agency recognizes that servicing needs can be met with a combination of newly-manufactured HCFCs (virgin HCFCs) and HCFCs that have been recovered and either recycled or reclaimed. Therefore, EPA does not anticipate that virgin HCFC–22 will need to be produced or imported to meet the entire HCFC–22 servicing need (estimated to be 3,438 ODP tons in 2010). The Servicing Tail report analyzes various scenarios regarding reclamation. In addition, EPA's memo to the docket ''Summary: EPA Analysis of U.S. Reclamation Practices and Trends'' provides background on the reclamation industry, includes information concerning capacity to reclaim greater amounts of refrigerants, and for 2010 projects that more than 20 percent of the servicing need can be met by recovering HCFC–22 from existing equipment.

Recycled and reclaimed HCFCs offset the need for newly-manufactured HCFCs and after the terminal phaseout, as with the CFC phaseout, will become the only material available for servicing existing equipment. EPA regulations at 40 CFR part 82 subpart F, promulgated under section 608 of the CAA, are targeted to reduce the use and emission of certain substances including HCFCs by maximizing their recapture and recycling during the service, maintenance, repair, and disposal of appliances. These regulations, and section 608 of the CAA, prohibit the venting or knowing release into the environment of HCFCs. The regulations require that they be recovered and then either recycled, reclaimed, or destroyed. Therefore, it is reasonable to assume that some amount of recovered HCFCs will be available to meet servicing needs. In accordance with the chemical-by-chemical phaseout regime adopted by the United States, after 2020 only recycled, reclaimed, and stockpiled HCFC–22 and HCFC–142b will be available to service appliances that require those substances. EPA's existing regulations at § 82.16 terminate HCFC–22 and HCFC–142b production and consumption at the end of 2019. The very small amount of additional production and consumption of HCFCs allowed under Article 2F of the Montreal Protocol between 2020 and 2030 for servicing existing appliances (0.5 percent of baseline) will only be permitted for HCFCs other than HCFC–141b, HCFC–22, and HCFC–142b, per § 82.16(e), and will be restricted to servicing air-conditioning and refrigeration equipment manufactured prior to January 1, 2020, per § 82.16(d).

The Servicing Tail report uses EPA's Vintaging Model to determine the quantities of HCFC–22 from existing (recycled or reclaimed) sources that can meet post-2010 servicing needs with the remaining quantities required through virgin manufacture (expending allowances). For a given year, the Vintaging Model assumes that a certain percentage, which varies by end use, of refrigerants are recovered from discarded equipment. The model aggregates the quantities recovered but does not distinguish the ''pool'' of refrigerant between quantities that are reclaimed and those that are recycled.

For purposes of analysis, the Servicing Tail report considers scenarios for HCFC–22 where differing amounts of refrigerant from decommissioned or converted appliances were recycled or reclaimed and reused for servicing. For example, the report examines scenarios in which 10 percent, 15 percent, 20 percent, 50 percent, and 75 percent of the total amount of HCFC–22 in retired or converted equipment is recovered. These analyses depict the potential ratios of new and recovered HCFC–22 that could be available during the years 2010–2019 to meet the overall servicing needs, recognizing that the higher recovery rates are less likely for the earlier control periods.

Recovery of HCFC refrigerants, with subsequent recycling or reclamation, will continue to increase over time. During the past several years the price of newly manufactured HCFC refrigerants has increased, creating a greater incentive for refrigerant to be reused. Recently, EPA has learned that many reclaimers are beginning to work directly with contactors to provide education concerning the benefits of refrigerant recovery. Certain reclaimers have recently established programs to provide incentives for contractors to return used refrigerants, including avoiding unnecessary mixing of refrigerants and thereby increasing the amount of refrigerant that can meet AHRI Standard 700. Such programs should encourage the existing trends of increased amounts of recovered refrigerants available for reuse. Given its previous experience with the class I phaseout, EPA believes that over time an increasing percentage of HCFCs will be recovered for reuse. For example, after the 1996 CFC phaseout, motor vehicles with CFC–12 air-conditioning systems continued to be serviced with recovered CFC–12. Recovered CFC refrigerants are still in use today for servicing a range of older equipment.

Three commenters disagreed with EPA's assumption that 20% of the total amount of HCFC–22 in equipment retired or retrofitted beginning in 2010 can either be recovered or made available for reuse. Generally this concern centered on the fact that current recovery and reclamation rates are not 20%. One of these commenters stated that the current use of reclaimed HCFC–22 is closer to seven percent. Though not stated in the comment, EPA believes this is a reference to data reported to EPA under 40 CFR part 82 subpart F showing that 4,556 MT of HCFC–22 was reclaimed in 2008. This amounts to 7.3% of the modeled demand in 2010, up from 5.9% in 2007. This value, though, does not reflect the total recovery rate as it excludes the amount of recycled refrigerant. EPA does not track recycled refrigerants, since recycled refrigerant (unlike reclaimed refrigerant) must be charged back into equipment with the same ownership rather than re-enter the market. EPA therefore knows that the combined amount of recycled and reclaimed refrigerants is greater than 7.3%. Two commenters provided estimates for the combined reclamation and recycling rates. One commenter said it is currently less than 15% of the modeled demand while the other estimated approximately 24 million pounds, or 17%. As described in the proposed rule, EPA has both anecdotal and reported information concerning recovery rates for refrigerants, though it does not have figures for recycled refrigerants. Furthermore, EPA notes that the amount reclaimed in one year does not mean that it was recovered in that year. Many reclaimers collect more than they reclaim in any one year due to market shifts. One commenter said that reclaimers have many tons of material in inventory waiting to be reclaimed when the economics of reclamation improve, which EPA believes will occur through the allocation levels established in this rule. EPA is aware that 20% recovery and reclamation for 2010 is greater than current industry practice but has not received comments that convince us that the rate is unreasonable.

The third commenter opposed to EPA's 20% recovery assumption was not optimistic that reclamation facilities currently had sufficient capacity or could increase capacity during the next few years to meet the demand. However, the reclamation companies together provided a comment stating that they currently have sufficient capacity to reclaim 36 million pounds of refrigerants each year, which is equal to 16,329 MT, or 26% of the estimated demand in 2010. The main concern of the reclaim industry is not reclamation capacity but rather the economic disincentive to reclaim and poor recovery practices. One commenter pointed to an expansion in the number of distributors offering refrigerant recovery services in support of EPA's goal of achieving 20% recovery. Multiple commenters suggested methods to improve contractor participation in the recovery, and recycling or reclamation of refrigerant, such as certification programs, enforcement, educational outreach, and training. EPA agrees that such approaches could improve contractor participation although they are beyond the scope of this rulemaking and welcomes further discussion with stakeholders to improve recovery and recycling or reclamation rates in 2010 and beyond.

EPA is basing the HCFC–22 allocation amounts on the amount EPA has estimated is needed, recognizing that reclamation and recycling reduce the

amount of virgin HCFC–22 that needs to be produced to meet that servicing need. EPA also continues to believe that an allocation at 80% of the estimated servicing demand is appropriate for 2010. Ten commenters stated that EPA's proposal to meet 80% of servicing demand through HCFC–22 consumption allowances, with the remaining demand being met through recovered material, is an appropriate approach. Six of these commenters stated that reducing the available supply of new HCFC–22 will create a need, and therefore a market, for recovery and reclamation. Four commenters stated that EPA should issue allowances at more than 80% of servicing demand and shared the concern that there will be insufficient recovered and reclaimed HCFC–22 to meet the difference. Three other commenters encouraged EPA to issue consumption allowances equaling less than 80% of HCFC–22 servicing demand in 2010.

EPA believes that if the 2010 allocation is 80% of the modeled demand, the remaining servicing need can be met from recycled or reclaimed material. Given the regulatory requirements for recycling and reclamation (at 40 CFR part 82 subpart F), experience with the CFC phaseout, and industry practices, EPA believes that by January 1, 2010, the effective date of this rule, the remaining 2010 servicing need can be met with recycled or reclaimed material. The Agency believes that 20% of the HCFC–22 in equipment that is retired or retrofitted each year after 2010 can be recovered and reclaimed and that the availability of recycled or reclaimed material will increase through 2014 as recovery practices improve. In 2020, all HCFC–22 and HCFC–142b used to service air-conditioning and refrigerant equipment will be supplied by recycled or reclaimed refrigerant that has been recovered from existing appliances in light of the nearly-complete phasedown of production and import of virgin material in accordance with the CAA and the Montreal Protocol. Additionally, EPA regulations already prohibit the intentional venting of refrigerants and require refrigerant recovery, and the market for recycled and reclaimed refrigerant is predicted to grow as the phaseout progresses. As discussed below, EPA also believes that reducing the allocation each year from 2010 to 2014 to reflect declining demand will lead to higher rates of recovery and recycling/reclamation. Additional information concerning recovery, recycling, and reclamation is found in the Servicing Tail report and the ''Summary: EPA Analysis of U.S. Reclamation Practices and Trends'' report in the docket.

3. Annual Reduction in Allocated Amounts

EPA's proposal to allocate 80% of the 2010 servicing demand for HCFC–22 (50,000 metric tons) was based on its belief that the remaining need could be met with refrigerant that was recovered and either reclaimed or recycled. Thirty three commenters pointed out, though, that EPA's proposal to maintain a constant allocation for each control period over 2010–2014 did not reflect that demand will decrease over that time as equipment goes out of service and are replaced with appliances using alternative refrigerants. Therefore, while an allocation of 50,000 MT would equal 80% of estimated demand in 2010, an allocation of 50,000 MT in 2013 and 2014 would exceed the modeled demand for those years (by 1,600 MT in 2013 and 6,400 MT in 2014). The proposed rule took comment on the idea of increasing the expected contribution of recycled and reclaimed refrigerant for each control period by annually reducing the allocation of HCFC–22. EPA now believes that unless it were to reduce the allocations for virgin HCFC–22 between 2010 and 2014, there could be an oversupply of HCFC–22 and the contribution of recycled and reclaimed refrigerant would decrease, both in the total number of kilograms and as the proportion of overall need.

Commenters expressed the possibility that a constant allocation as proposed could harm the rates of recovery and reclamation. Reclaimers commented that they would not be able to compete with the less expensive virgin material that would exceed the market demand in 2013–2014. With no economic incentive to reclaim, they claim they could be driven to idle their reclamation facilities, restarting them in 2015 to meet the demand resulting from that stepdown. They argue that two years of inactivity would weaken their contacts with contractors and distributors and hamper efforts to instill proper recovery practices. EPA is unable to predict the precise effect of allowing production levels in excess of demand and does not believe that all reclaimers will be affected in the same way. However, EPA does agree that this could harm the recovery and reclaim industry at exactly the time when rates of recovery and reclamation need to be increasing.

EPA is particularly concerned with providing as smooth a transition to the 2015 stepdown as possible. At that date, the U.S. must meet a 90% reduction below the baseline for all HCFCs, which is equivalent to 1,524 ODP-weighted metric tons. EPA's Servicing Tail report shows that even a 20% recovery rate would be insufficient to meet the demand for HCFC–22 in 2015. As shown in Table 4–5 in the report, demand for HCFC–22 in 2015 is projected to be 38,800 MT while the cap for all HCFCs equates to 27,709 MT of HCFC–22 (assuming no allocation for any other HCFCs). A 20% recovery rate would allow for the additional use of 8,800 MT but would still leave a shortfall of 2,291 MT in 2015. EPA calculates that to meet the total demand in 2015, the recovery rate must increase to 26% (representing 29% of total servicing demand) by that year.

Based on the comments, EPA believes it is desirable to institute a year-by-year reduction for the period of 2010–2014. A smooth transition for stakeholders—including continued availability of needed material for approved uses—has historically been an essential aspect of the U.S.'s success in implementing the Montreal Protocol and Clean Air Act requirements. To ease the transition to 2015 and avoid disruptions to the market and shortages in HCFC–22 at that date, the Agency believes it is necessary to take steps now to foster further recovery.

EPA believes that the servicing demand over 2010–2014 can continue to be met under the new allocation levels in the final rule. Since EPA is not banning the use of existing HCFC–22 appliances that have been manufactured prior to January 1, 2010, recovered and reclaimed HCFC–22 will become more valuable as the phaseout progresses. The demand for HCFC–22 to service existing equipment will provide an economic incentive to increase the quantities of recovered HCFC–22 available for reclamation. As an indicator of the improved economics, several reclamation companies have recently started offering financial payments for recovered HCFC–22. The docket provides further information on EPA's assumptions regarding the availability of recovered and reclaimed HCFC–22 to meet servicing needs.

Finally, annual reductions to the allocation provides clear environmental benefits compared to the lead option in the proposed rule, assuming the same starting point. Over the five-year period 2010–2014, the proposed rule would have allocated 250,000 metric tons of HCFC–22. Over the same period, the final rule is allocating 203,100 MT of HCFC–22, a difference of 46,900 MT, or 2,574 ODP tons.

Commenters suggested various possible methods for allocating HCFC–22 allowances on a declining annual

basis. One commenter supported an annually declining allocation but did not support a total allocation over the five-year period less than what EPA proposed. EPA believes that such an approach would negate many of the benefits of annually reducing the allocations, including easing the transition to the 2015 control period and providing an environmental benefit. To implement the suggestion, the allocation would have to equal demand in 2010, which would not create any impetus for reclamation in that year, and be 84% of demand in 2014. EPA believes that meeting 20% of demand with used material in 2010 is feasible and that the Agency should not wait until 2014 to approach that goal. For the same reason, EPA also rejects another suggested method that would increase the 2010 allocation from 50,000 MT to 55,000 MT. The majority of commenters agree with EPA's approach of allocating at 80% of demand in 2010, with recovered and either recycled or reclaimed HCFC–22 meeting the remainder. Indeed, other commenters agreed with an allocation of 50,000 MT in 2010 and used that value as the starting point for a straight-line annual reduction to other 2014 endpoints. One suggestion was to set allocations that decline linearly from 2010–2014, where the allocation if extrapolated to 2015 would equal the 2015 cap. This results in a yearly reduction of 4,458 MT. Another similar suggestion rounded up the annual reduction to 5,000 MT, which results in a line that would be below the cap in 2015.

Because the primary benefit of annually reducing the allocation is to ensure demand in 2015 is met through greater recovery and reclamation, EPA believes that it is more appropriate to base the allocation more directly on that goal. In 2015, EPA estimates demand of HCFC–22 at 38,800 MT. Were the allocations to consist entirely of HCFC–22, the cap would limit the 2015 HCFC–22 allocation to only 27,709 MT, a difference of 11,091 MT that would have to be made up with recovered material. Furthermore, it is likely that the allocation in 2015 will not consist entirely of HCFC–22 as EPA will need to reserve room under the cap for other HCFCs, similar to the approach EPA is taking in this rule for the 2010–2014 control periods. EPA believes it is appropriate to establish an annual step-down such that the amount of total demand to be met from recovered HCFC–22 will equal 12,500 MT each year, as that is the amount EPA proposed to be met in 2010 and it is approximately the amount that will be needed to meet the servicing demand in 2015. Under this approach, the allocations would equal 50,000 MT in 2010, 45,400 MT in 2011, 40,700 MT in 2012, 35,900 MT in 2013, and 31,100 MT in 2014. These values, shown in the table below, are derived by subtracting 12,500 MT from the estimated demand each year. EPA will not issue allowances for 2015 and beyond until a future rulemaking but extends the table to 2015 to show the estimated demand for that year and the amount of recovered material that must be used to meet the demand at that date, assuming the allocation in 2015 consists entirely of HCFC–22 and does not include other HCFCs.

	2010	2011	2012	2013	2014	2015
Estimated Demand (MT)	62,500	57,900	53,200	48,400	43,600	38,800
Total Allocation (MT)	50,000	45,400	40,700	35,900	31,100	27,709
Reclaimed Amount (MT)	12,500	12,500	12,500	12,500	12,500	11,091

This annual stepdown lies between the two rates suggested by commenters. As the total demand decreases, maintaining the supply of recovered HCFCs at a constant level results in recovered material comprising a greater proportion of the total demand each year. Under this approach, the percentage of the total need to be met with reclaimed material will rise from 20% to 29% of total demand in 2014, though the total amount of reclaimed material supplied remains at 12,500 MT for all five years. EPA believes this is appropriate as it facilitates meeting the demand in 2015, of which at least 29% must be met with recovered material.

Commenters who requested annual reductions in the amount of HCFC–22 allocations did not suggest that EPA annually reduce the allocations of HCFC–142b. EPA is not reducing the allocation of HCFC–142b on an annual basis because the Agency does not believe that the same rationale would apply to HCFC–142b. Most recovered HCFC–22 comes from refrigeration and air-conditioning appliances. The largest single use of HCFC–142b prior to 2010 was to blow foam and recovery is not required from discarded foam. The need for recovery is also less, given the small amounts of HCFC–142b needed to service existing refrigeration equipment post-2010. Finally, it is difficult to reclaim HCFC–142b from refrigerant blends and such recovery is not widely practiced. Therefore, EPA is finalizing annual reductions only for HCFC–22 and maintaining the allocations of HCFC–142b as proposed.

C. Allocations of HCFC–22 and HCFC–142b

EPA is revising the two types of tables in 40 CFR part 82 that together specify the production and consumption allowances available to allowance holders during specified control periods. Tables at § 82.17 and § 82.19 apportion baseline production allowances and baseline consumption allowances, respectively, to individual companies for individual HCFCs. Complementing these tables, the table at § 82.16 lists the percentage of baseline allocated to allowance holders for specific control periods. By selecting option 1, discussed in Section IV.A. of the preamble above, EPA is retaining this framework of complementary tables, revising them to reflect adjustments to baselines, and granting percentages of baselines in a manner that achieves the 2010 phasedown goal.

The percentages for HCFC–22 and HCFC–142b in the table at § 82.16 (Table 1 below) have changed from the proposed rule. In the proposal, the allocation for HCFC–22 for 2010 was 35.2% of baseline. In the final rule, the value is 41.9%. Similarly, the percent allocation for HCFC–142b for 2010 was 4.9% of baseline in the proposed rule and is 0.47% in the final rule. These changes do not reflect a change in the allocation amounts, as the total allocation for HCFC–22 in 2010 remains 50,000 MT (the same as the proposal), and the total allocation for HCFC–142b 2010 remains at 100 metric tons (the same as the proposal). Instead, these changes are due to not changing the baselines to reflect inter-pollutant transfers occurring on an annual basis within a single company. The proposal, which treated the intracompany transfer of HCFC–142b to HCFC–22 as permanent, had a total consumption baseline of 141,865 MT. By not accounting for those transfers, the baseline in the final rule decreased to 119,285 MT. With a smaller total

baseline, the factor that each baseline allowance holder must multiply to reach the same amount of allowances is greater. Thus, 50,000 is equal to 35.2% of 141,865 and 41.9% of 119,285. The opposite is true for HCFC–142b, which had a proportionately smaller baseline in the proposed rule but now has a larger baseline since EPA is not accounting for inter-pollutant transfers.

EPA is amending the table at § 82.16 by including control periods 2010–2014, by continuing to allocate zero percent to HCFC–141b, and by allocating specified percentages (in separate columns) to HCFC–22, HCFC–142b, and—as will be discussed later—other HCFCs. The allocations for HCFC–22 decrease on an annual basis, rather than remaining constant for each of the 2010–2014 control periods as was proposed.

TABLE 1—PHASEOUT SCHEDULE FOR CLASS II CONTROLLED SUBSTANCES IN 40 CFR 82.16

Control period	Percent of HCFC–141b	Percent of HCFC–22	Percent of HCFC–142b	Percent of HCFC–123	Percent of HCFC–124	Percent of HCFC–225ca	Percent of HCFC–225cb
2003	0	100	100				
2004	0	100	100				
2005	0	100	100				
2006	0	100	100				
2007	0	100	100				
2008	0	100	100				
2009	0	100	100				
2010	0	41.9	0.47	125	125	125	125
2011	0	38.0	0.47	125	125	125	125
2012	0	34.1	0.47	125	125	125	125
2013	0	30.1	0.47	125	125	125	125
2014	0	26.1	0.47	125	125	125	125

EPA is allocating different baseline percentages for HCFC–22 and HCFC–142b because EPA projects that the needs will differ for servicing air-conditioning and refrigeration appliances during the 2010–2014 control periods. As discussed in Section IV.B.1. of the preamble above, EPA's analysis shows that there will be a significantly greater need for HCFC–22 than for HCFC–142b during the control periods 2010–2014. Based on the Servicing Tail report and reporting information already required by EPA regulations, the needs for individual HCFCs are not uniform. Allocating the same percentage of baseline for HCFC–22 and HCFC–142b would result in too few allowances for HCFC–22 and too many allowances for HCFC–142b. While inter-pollutant transfers in accordance with § 82.23(b) could be used to trade allowances of one HCFC for another, EPA does not believe it is appropriate to rely on such transfers as a mechanism for large-scale corrections. Instead, EPA anticipates that the continued availability of inter-pollutant transfers will permit the market to self-correct for unforeseen changes in demand and allow individuals to consider a range of options for their allowances. EPA seeks to avoid unnecessary disruptions in the marketplace and to promote a smooth transition for industry.

1. HCFC–22 Allowances for 2010–2014

For 2010, EPA is allocating HCFC–22 consumption allowances to meet 80 percent of the servicing need, assuming that the remainder will be met by recovered HCFC–22 that is either recycled or reclaimed. This translates into 50,000 metric tons (2,750 ODP-weighted metric tons), or approximately 72 percent of the total HCFC consumption cap for the 2010 control period. For the 2011–2014 control periods, EPA is annually reducing the allocation amount in a linear fashion, reflecting the declining servicing demand over that time.

As it did in the 2003 allocation rule, EPA is allocating production allowances among different chemicals using the same percentage breakdown as for consumption allowances. This rule allocates 46,368 metric tons (2,550 ODP tons of the 3,884.25-ODP-ton production cap) to HCFC–22 production in 2010, with the amount declining in each of the control periods from 2010 through 2014. This is consistent with section 605(c) of the Clean Air Act, which requires that the phaseout schedule for HCFC consumption be the same as that for HCFC production. EPA recognizes that there is a difference between the amount of imported and produced HCFCs and that the degree of difference may vary over time. However, EPA does not believe it is necessary to use two different chemical-by-chemical percentage breakdowns (*i.e.*, one for consumption allowances and another for production allowances) to ensure compliance with the production and consumption caps. Therefore, for simplicity and for consistency with section 605(c), EPA is using the same percentages for production and consumption allocations—deriving the percentages based on estimated need for each individual HCFC.

2. HCFC–142b Allowances for 2010–2014

As discussed in the Servicing Tail report, the projected servicing need for HCFC–142b is extremely low: Approximately 100 metric tons (6.5 ODP tons) in 2010 and decreasing to zero by 2015. Prior to 2010, the primary use of HCFC–142b has been to blow foam, a use no longer allowed after 2010. In estimating the need for 2010–2014, EPA has considered the amount of HCFC–142b produced and imported into the United States as reported to EPA in recent years under the existing requirements. Unlike with HCFC–22, EPA has not considered the reclamation and recovery rates of HCFC–142b in setting the allocation amounts. HCFC–142b has primarily been used in foams, which is not recovered. The small amount of HCFC–142b used in refrigeration and air conditioning applications is typically used as a component of a blend which is more difficult to reclaim. Furthermore, these blends have not gained any significant market share, unlike blends containing HCFC–22. Given these factors, the limited amount of data available to EPA indicates that less than 1 percent of HCFC–142b is recycled or reclaimed. EPA did not receive any additional data in the public comment process that would suggest otherwise.

In light of the limited data available, and the extremely low estimate of recycling and reclamation, EPA is allocating 100 percent of the projected HCFC–142b servicing need. Because of the lack of data and the small amounts being allocated, EPA is maintaining the

same allocation level for each of the 2010–2014 control periods, rather than allocating declining amounts as EPA is doing for HCFC–22. Therefore, EPA is issuing consumption allowances for HCFC–142b of 100 metric tons (6.5 ODP tons) in 2010–2014. EPA is also allocating production allowances for HCFC–142b at the same proportion of the production cap as was used to allocate consumption allowances as a proportion of the consumption cap. Thus, EPA is allocating production allowances for HCFC–142b at 118 metric tons (7.7 ODP tons).

3. How the Aggregate for HCFC–22 and HCFC–142b Translates Entity-by-Entity

EPA is allocating 50,000 metric tons of HCFC–22 consumption allowances in 2010 with declining amounts in 2011–2014, 46,329 metric tons of HCFC–22 production allowances in 2010 with declining amounts in 2011–2014, 100 metric tons of HCFC–142b consumption allowances, and 118 metric tons of HCFC–142b production allowances for years 2010–2014. However, EPA actually allocates allowances to individual persons (*i.e.*, legal entities). As discussed in Section IV.A.1 of this preamble, EPA is apportioning baselines and allocating allowances on a pro-rata basis to the entities that received baseline allowances in the 2003 allocation rule.

Company-specific production and consumption baselines (also referred to as ''baseline allowances'') for HCFC–141b, HCFC–22, and HCFC–142b are listed at §§ 82.17 and 82.19, respectively. The percentage of baseline each entity receives in each control period from 2003 through 2014 appears at § 82.16(a), as shown in Table 1 above.

Allowances allocated for individual control periods are called ''calendar-year allowances'' to distinguish them from the baseline production or consumption allowances (§ 82.17 and § 82.19). For 2010–2014, EPA is apportioning production and consumption baselines for HCFC–22, HCFC–141b, and HCFC–142b to the same entities that were apportioned HCFC–22, HCFC–141b, and HCFC–142b baselines in the 2003 allocation rule. EPA is amending that list of entities and their baselines to reflect changes in entities' names as well as mergers and acquisitions, but only where EPA has been notified of changes in writing before or during the comment period for this rulemaking.

Consistent with past practice, EPA is publishing baseline allowance information in this rule, having first notified the affected companies of its intention to do so. Applying the approach described above, EPA is apportioning production and consumption baselines for HCFC–141b, HCFC–22, and HCFC–142b to the following entities in the following amounts:

TABLE 2—BASELINE PRODUCTION ALLOWANCES OF HCFC–22, HCFC–141B, AND HCFC–142B IN 40 CFR 82.17

Person	Controlled substance	Allowances (kg)
Arkema	HCFC–22	28,219,223
	HCFC–141b	24,647,925
	HCFC–142b	16,131,096
DuPont	HCFC–22	42,638,049
Honeywell	HCFC–22	37,378,252
	HCFC–141b	28,705,200
	HCFC–142b	2,417,534
MDA Manufacturing	HCFC–22	2,383,835
Solvay Solexis	HCFC–142b	6,541,764

TABLE 3—BASELINE CONSUMPTION ALLOWANCES OF HCFC–22, HCFC–141B, AND HCFC–142B IN 40 CFR 82.19

Person	Controlled substance	Allowances (kg)
ABCO Refrigeration Supply	HCFC–22	279,366
Altair Partners	HCFC–22	302,011
Arkema	HCFC–22	29,524,481
	HCFC–141b	25,405,570
	HCFC–142b	16,672,675
Carrier Corporation	HCFC–22	54,088
Condor Products	HCFC–22	74,843
Continental Industrial Group	HCFC–141b	20,315
Coolgas, Inc	HCFC–141b	16,097,869
Coolgas Investment Property	HCFC–22	590,737
Discount Refrigerants	HCFC–22	375,328
	HCFC–141b	994
DuPont	HCFC–22	38,814,862
	HCFC–141b	9,049
	HCFC–142b	52,797
H.G. Refrigeration Supply	HCFC–22	40,068
Honeywell	HCFC–22	35,392,492
	HCFC–141b	20,749,489
	HCFC–142b	1,315,819
ICC Chemical Corp	HCFC–141b	81,225
Ineos Fluor Americas	HCFC–22	2,546,305
Kivlan & Company	HCFC–22	2,081,018
MDA Manufacturing	HCFC–22	2,541,545
Mondy Global	HCFC–22	281,824
National Refrigerants	HCFC–22	5,528,316
Refricenter of Miami	HCFC–22	381,293
Refricentro	HCFC–22	45,979
R–Lines	HCFC–22	63,172

TABLE 3—BASELINE CONSUMPTION ALLOWANCES OF HCFC–22, HCFC–141B, AND HCFC–142B IN 40 CFR 82.19—Continued

Person	Controlled substance	Allowances (kg)
Saez Distributors	HCFC–22	37,936
Solvay Fluorides	HCFC–22	413,509
	HCFC–141b	3,940,115
Solvay Solexis	HCFC–142b	3,047,386
Tulstar Products	HCFC–141b	89,913
USA Refrigerants	HCFC–22	14,865

D. HCFC–123, HCFC–124, HCFC–225ca, and HCFC–225cb Allowances

EPA is establishing and apportioning baselines for other HCFCs that have been produced or imported in recent years by using information on production, import, export, and other transactions that has been reported to the Agency under existing regulations. Under the Montreal Protocol, all HCFCs are subject to the phaseout cap and EPA must report production, import, and export data for all HCFCs under Article 7 of the Protocol. EPA therefore requires recordkeeping and reporting for production, import, export, and trade of all HCFCs, including those for which baseline allowances have not yet been established. The recordkeeping and reporting requirements implement section 603 of the Clean Air Act and ensure that companies are in compliance with regulatory and Clean Air Act requirements and that the United States is able to document compliance with international obligations.

EPA reviewed HCFC production, import, and export data for the years leading up to the 2003 allocation rule, and chose to establish baselines and allocate allowances for the highest-ODP HCFCs (the ''worst-first'' approach) in a manner that ensured U.S. compliance with the 2004 cap (35 percent below the U.S. baseline). Prior to the tightening of the 2010 HCFC cap at the 19th Meeting of the Parties to the Montreal Protocol in September 2007 from a 65 percent reduction to a 75 percent reduction, EPA anticipated that limiting production and consumption of HCFC–22 and HCFC–142b for the 2010–2014 control periods would ensure sufficient room under the then-effective 65 percent reduction cap without the need to restrict production and consumption of other HCFCs. In preparing for the 19th Meeting of the Parties, EPA conducted an analysis, which was shared with stakeholders, to ensure that the U.S. could consider changes to our obligations that were both meaningful for ozone layer protection and achievable, allowing servicing needs to continue to be met. Considering that the September 2007 Montreal Adjustment provides for adjustment of the cap from a 65 percent to a 75 percent reduction, EPA is taking additional precautions to ensure that the more stringent cap will not be exceeded. These precautions include establishing and apportioning baselines for the 2010–2014 control periods for other HCFCs that were produced or imported during the 2003–2007 control periods.

1. Baselines for HCFC–123, HCFC–124, HCFC–225ca, and HCFC–225cb

EPA is amending §§ 82.17 and 82.19 to include company-specific production and consumption baselines for HCFC–123, HCFC–124, HCFC–225ca, and HCFC–225cb. EPA data indicate that those four HCFCs were produced, imported, or exported during the 2003–2007 control periods.

In the 2003 allocation rule, EPA did not issue allowances for all HCFCs, noting in part ''that the continuously developing HCFC market would be hampered by such distribution'' and that the market proportions at that time ''of these lower-ODP HCFCs do not reflect the rapidly expanding market and that distributing allowances for these HCFCs at [that] time would unnecessarily restrict their supply and impede transition to less ozone-depleting substances'' (68 FR 2823). Considering the recent adjustments to the Montreal Protocol and the evolution in the HCFC market, EPA believes it is now appropriate to establish a baseline and apportion baseline allowances for HCFC–123, HCFC–124, HCFC–225ca, and HCFC–225cb.

All HCFCs are covered under the Montreal Protocol stepwise reductions, and EPA must consider all HCFC production and import in ensuring that the United States continues to meet its international obligations. The four HCFCs addressed in this section are the only remaining HCFCs commonly used in the United States that do not currently have established baselines. Establishing baseline allowances for these four HCFCs will not trigger additional recordkeeping or reporting obligations, since companies that produce, import, or export any HCFC already report production and consumption data to EPA. The impacts on future production and consumption of these chemicals by individual entities stem from the years chosen for establishing a baseline, the apportionment of the baseline among companies, and the percentage of baseline allocated for the control years 2010–2014. EPA discusses these issues more specifically below.

EPA recognizes that many different methods and data sources can be used to establish baseline allowances. EPA proposed to use data reported to the Agency under § 82.24 and EPA is using that method in this final rule. EPA did not receive any comments opposed to using existing reported data. EPA also said in the proposed rule that it could augment the data for completeness or to verify accuracy by issuing requests for information under section 114 of the CAA. EPA did not receive comment relating to this process specifically, but believes that seeking additional information could delay the publication of the final rule without providing significant additional benefit.

EPA is making three changes to Table 5, which are found at 40 CFR 82.17 and 82.19, as compared to the proposed rule. First, EPA is adding Perfect Technology Center, LP (doing business as Perfect Cycle) to the list of companies being allocated baselines for the other HCFCs. Perfect Technology Center, LP had imported HCFC–123 during the time period used to set the baseline but its reporting forms—although submitted in compliance with EPA regulations—were misdirected and the information was not included in EPA's baseline calculations. Second, DuPont corrected previously reported data, which has the effect of adjusting DuPont's HCFC–123 baseline from 2,933,906 kg to 1,877,042 kg. Third, Honeywell had corrected previous HCFC–124 production data but EPA did not reflect that change in the proposed rule. EPA is reflecting that correction now by changing Honeywell's HCFC–124 production baseline from 1,804,121 kg to 1,759,681

kg. These changes do not affect the baselines or the allocation amounts for the other companies receiving HCFC–123 or HCFC–124 allowances.

In the 2003 allocation rule, EPA calculated each entity's HCFC–141b, HCFC–22, and HCFC–142b baselines from that entity's highest reported consumption and production over the years 1994–1997. EPA chose that particular range of years because beginning in 1998, some entities were aware of the impending rulemaking and could have increased production or import in an effort to secure higher baseline allowances. EPA stated in the 2003 allocation rulemaking that ''by not selecting a year after 1997 it will avoid creating an uneven playing field that skews allocations to those companies with ample resources and good access to information'' (68 FR 2832). EPA did propose and finalize an exception to the general approach by allowing new entrants that began importing after the end of 1997 but before April 5, 1999, the date of the ANPRM publication. EPA believed that such new entrants, typically small businesses, might not have been aware of the impending rulemaking that would affect their ability to continue in the HCFC market.

EPA is using the same general approach for these four HCFCs as in the 2003 allocation rule by considering the highest reported data from a range of years rather than selecting a single baseline year. However, EPA is not providing an exemption for new entrants. EPA did not receive any comments requesting a new entrant provision for these four HCFCs and does not believe that one is necessary as these baseline years reflect participants in the market in 2005–2007 and thus take into account relatively new entrants. As in the 2003 allocation rule, EPA is choosing a range of years because the entities receiving allowances have very different production and import histories and no one year is representative for all companies. EPA believes that selecting the year of highest activity for individual companies over a range of years creates less of a disadvantage to the industry and the HCFC market as a whole than selecting a single year. Therefore, in this final rule, EPA is using an entity's highest reported consumption and production data reported for the 2005–2007 control periods. By using past years, EPA avoids any ramp-up in the level of production and consumption resulting from a desire to maximize individual baselines in anticipation of the final rule. By using recent data, EPA ensures that the baseline reflects the current market as closely as possible, and addresses issues raised when EPA decided to postpone allocating baseline allowances for these HCFCs in 2003.

Four commenters generally agreed with the proposal to establish baselines for HCFC–123, HCFC–124, HCFC–225ca, and HCFC–225cb, acknowledging that a baseline for these chemicals will help ensure the United States meets its Montreal Protocol obligations and that the method used to establish a baseline was successfully utilized for HCFC–141b, HCFC–142b and HCFC–22. EPA did not receive any comments in opposition to establishing baselines for these HCFCs.

Two commenters disagree with EPA's proposal to establish the HCFC–123 baseline as a company's highest-year production and consumption between 2005 and 2007. One of those commenters stated a belief that the market for chillers using HCFC–123 has been steadily declining over the last several years and suggested that EPA instead select the lowest reported data from 2005–2007 to set the HCFC–123 baseline. The other commenter urged EPA to calculate the baseline using calendar year 2008 data, which it said better reflects the market. EPA disagrees with these alternative methods for establishing the baseline for HCFC–123. EPA does not support choosing the lowest year's reported data because EPA is not seeking to actively restrict the market for HCFC–123 in this rule. EPA does not wish to prejudge the market for HCFC–123, be it increasing or decreasing. EPA also does not believe that selecting the 2008 year is appropriate because EPA's experience has been that a single year's data may actually not be reflective of the market, even if the date is closer to the present. For example, the economic conditions in 2008 may have affected production for that year in a way that is not reflective of the market in 2010 and beyond. Also, as mentioned above, the entities receiving allowances have very different production and import histories and no one year is representative for all companies. For these reasons, EPA is establishing the HCFC–123 production and consumption baselines based on an entity's highest reported consumption and production for the 2005–2007 control periods.

EPA is apportioning production and consumption baselines for HCFC–123, HCFC–124, HCFC–225ca, and HCFC–225cb to the following entities for the following amounts, which are found in 40 CFR 82.17 and 82.19:

TABLE 4—BASELINE PRODUCTION ALLOWANCES OF HCFC–123, HCFC–124, HCFC–225CA, AND HCFC–225CB IN 40 CFR 82.17

Person	Controlled substance	Allowances (kg)
AGC Chemicals Americas	HCFC–225ca	266,608
	HCFC–225cb	373,952
DuPont	HCFC–124	2,269,210
Honeywell	HCFC–124	1,759,681

TABLE 5—BASELINE CONSUMPTION ALLOWANCES OF HCFC–123, HCFC–124, HCFC–225CA, AND HCFC–225CB IN 40 CFR 82.19

Person	Controlled substance	Allowances (kg)
AGC Chemicals Americas	HCFC–225ca	285,328
	HCFC–225cb	286,832
Arkema	HCFC–124	3,719
Condor Products	HCFC–124	3,746
Coolgas, Inc.	HCFC–123	20,000
DuPont	HCFC–123	1,877,042
	HCFC–124	743,312
Honeywell	HCFC–124	1,284,265

TABLE 5—BASELINE CONSUMPTION ALLOWANCES OF HCFC–123, HCFC–124, HCFC–225CA, AND HCFC–225CB IN 40 CFR 82.19—Continued

Person	Controlled substance	Allowances (kg)
ICOR	HCFC–124	81,220
National Refrigerants	HCFC–123	72,600
	HCFC–124	50,380
Perfect Technology Center, LP	HCFC–123	9,100
Tulstar Products	HCFC–123	34,800
	HCFC–124	229,582

2. Allocation Levels for HCFC–123, HCFC–124, HCFC–225ca, and HCFC–225cb

As proposed, EPA is allocating 125 percent of the baseline production and consumption allowances for HCFC–123, HCFC–124, HCFC–225ca, and HCFC–225cb for the 2010–2014 control periods. These allocations appear as additions to the table at § 82.16, shown in Table 1 above. EPA's intent in establishing baseline production and consumption allowances for these HCFCs is to create a mechanism for limiting growth in the production and consumption of these HCFCs during those control periods. EPA has heard from stakeholders that some amount of market expansion for these low-ODP HCFCs is possible during the 2010–2014 control periods. Unlike HCFC–22 and HCFC–142b, which are subject to use restrictions beginning January 1, 2010, these four low-ODP HCFCs are not subject to use restrictions until a later date. Given the low ODPs for these HCFCs, allocating 125 percent of the baseline for 2010–2014 allows for growth but still ensures that the United States meets the overall HCFC cap of 75 percent below the baseline during these control periods.

Any growth in the non-prohibited use of these HCFCs will be balanced to some extent by the 605(a) self-effectuating restrictions on most uses of HCFCs. Regardless of any action by EPA, usage of these HCFCs will be constrained, and in some instances prohibited, in 2015. For example, HCFC–225ca and HCFC–225cb are generally used as solvents but as of January 1, 2015, under section 605(a), HCFCs may not be used in solvents. Refrigerant uses for other HCFCs may continue until 2020. For example, while newly manufactured HCFC–22 cannot be produced or imported for charging into new air-conditioning and refrigeration appliances as of January 1, 2010 (40 CFR 82.16(c)), HCFC–123 can be produced or imported for new appliances until 2020 (40 CFR 82.16(d)). However, HCFC–123 is a transitional alternative for CFC–11 and is still scheduled for phaseout in 2015 except in equipment manufactured before 2020. Because of the section 605(a) use ban, EPA anticipates that any continued growth for these HCFCs will be considerably affected as of January 1, 2015. The section 605(a) use provisions are discussed in more detail below at Section VI of the preamble.

Through this action, EPA is allocating allowances equaling 125 percent of the baseline for HCFC–123, HCFC–124, HCFC–225ca, and HCFC–225cb for the 2010–2014 control periods. If rapid growth were to occur, creating the need for additional amounts of one or more of these HCFCs, EPA believes that inter-pollutant transfers could be used to make adjustments. EPA has calculated that 125 percent of the highest year's consumption of HCFC–123, HCFC–124, HCFC–225ca, and HCFC–225cb for all the companies combined equals 137 ODP-weighted metric tons, which is less than 4 percent of the total HCFC consumption cap of 3,810 ODP tons. EPA data also show that 125 percent of the highest year's production of HCFC–123, HCFC–124, HCFC–225ca, and HCFC–225cb for all the companies combined equals 135 ODP-weighted metric tons, which is less than 4 percent of the total HCFC production cap of 3,884.25 ODP tons.

In general, commenters, including those who use these other HCFCs, supported the proposed allocation amounts. The only comments disagreeing with the proposed allocation amounts were with respect to HCFC–123. Two commenters objected to an allocation of 125% of baseline for HCFC–123, claiming that this would artificially increase demand. These commenters proposed that EPA use a lower allocation amount, such as 80% of baseline. Another commenter stated that EPA should encourage the transition to non-ozone-depleting substances by accelerating the phaseout of HCFC–123 and reducing the allocation amounts on an annual basis. First, EPA disagrees that allocating more than 100% of baseline for HCFC–123 will artificially increase demand for this compound. Currently, there is no limit on HCFC–123 production or consumption. EPA does not believe that placing such a limit in this rule would artificially increase demand for this compound. As discussed above, EPA chose more than 100% to allow for normal growth in the market, not to impose any constraints or confer any benefits on the market. If the full amount of allowances is not needed, then EPA expects that the excess allowances may go unused or be transferred for other HCFCs. Second, under current domestic regulations, HCFC–123 can be produced or imported for new appliances until 2020 (40 CFR 82.16(d)). Third, EPA does not believe that the continued use of HCFC–123 at this point will threaten U.S. compliance with the overall HCFC cap. Therefore, the Agency disagrees that it is necessary to accelerate that schedule in this rule.

Some commenters also questioned EPA's analysis of the HCFC–123 market in the Servicing Tail report. They stated that the 3 million kilogram allocation to HCFC–123 surpasses their own estimate of needs. While EPA did not use a straight needs-based analysis for allocating HCFC–123, EPA did review the HCFC–123 needs analysis in the June 2008 Servicing Tail report and found that the source data used to project needs were not the same as those used to establish the allocation of HCFC–123. EPA has issued a final version of the Servicing Tail report (accessible in the docket to this action and at *http://www.epa.gov/ozone*). In any case, EPA has not chosen to allocate HCFC–123, HCFC–124, HCFC–225ca, or HCFC–225cb at the estimated need as shown in the Servicing Tail report. Instead, to allow for market growth as previously discussed, EPA is setting allocation baselines in the same manner for all four of these low-ODP HCFCs. Namely, EPA is setting each company's baseline at the highest consumption or production in the years 2005–2007, and allocating 125% of those baselines to avoid interfering with the existing market.

In accordance with the Montreal Protocol, EPA will issue a rule prior to the 2015 HCFC milestone to limit aggregate production and consumption

of all HCFCs to no more than 10 percent of the U.S. baselines for production and consumption. At that time, EPA plans to consider the appropriate level of allowances for 2015 and beyond based on market demand and the section 605(a) restrictions on introduction into interstate commerce and use discussed later in this preamble. Examples of uses that will be prohibited by section 605(a) beginning in 2015 are solvents, sterilants, and fire suppression uses. EPA anticipates other changes as well. For example, EPA's allowance level for HCFC–123, HCFC–124, HCFC–225ca, and HCFC–225cb does not assume a specified level of recycling and reclamation. For HCFCs used in non-refrigeration applications, such as solvents (*e.g.,* HCFC–225ca and HCFC–225cb), the section 608 prohibition on venting is not applicable. EPA received comment that it should consider recovery and recycling or reclamation of HCFC–123 in this rule when establishing production and consumption allowances. HCFC–123 is used in chillers that in some cases are replacing CFC chillers. Given that in many cases these appliances have expected lifespans of more than 20 years, it will be some time before significant amounts of HCFC–123 are recovered and recycled or reclaimed. In future rulemakings, however, EPA may estimate the amount of the total need for HCFC–123 that can be met through recycling and reclamation. As the HCFC–123 market matures, the refrigerant recovery, recycling, and reclamation requirements in 40 CFR part 82 subpart F will result in a greater amount of reusable HCFC–123.

E. Other HCFCs

As a result of EPA's allocation process, which is largely based on projected 2010–2014 need for HCFC–22 and HCFC–142b, minus an amount of HCFC–22 that is assumed to be recycled or reclaimed, the total allocation is lower than the aggregate HCFC cap. EPA recognizes that there could be some additional need for HCFCs not specifically included in this rule. While some niche applications in the U.S. use other HCFCs, such as HCFC–21, EPA is not aware of additional need for production or import of these substances at this time, as adequate amounts appear to be in inventory. However, EPA is not foreclosing the possibility of additional production or import for these niche uses. Also, some amount of HCFC–141b will likely continue to be produced or imported via the petition process during the 2010–2014 control periods. EPA believes that there is sufficient room under the cap for such continued production and import. The current regulations at 40 CFR 82.15 ban the production and import of class II substances for which EPA has apportioned baseline production and consumption allowances in excess of allowances held by the producer or importer, but do not ban the production and import of class II substances for which EPA has not apportioned baseline production and consumption allowances. This rule does not alter the current regulations in that respect. The producer or importer of an HCFC that is not subject to the allowance system would be required to report to EPA consistent with the existing recordkeeping and reporting requirements. If necessary, EPA could amend the regulations to set and apportion baselines and issue allowances for these HCFCs. Therefore, retaining room under the cap provides the benefit of accounting for unanticipated growth in HCFCs that do not have allocations or other unforeseen events. However, those reasons are not why EPA is reserving room under the cap. Instead, it is the result of EPA's bottom-up approach of allocating allowances for HCFC–22 and HCFC–142b according to the modeled demand for virgin and reclaimed material.

EPA received two comments that reserving 22% of the total HCFC cap for ''other'' HCFCs is too excessive, given that HCFC–22 will have the greatest servicing needs and projected shortages. EPA agrees that the greatest need for all HCFC in the future will be for servicing existing HCFC–22 equipment. However, as discussed in Section VI.B.1., EPA carefully analyzed such needs through multiple iterations of its Servicing Tail report to determine an allocation of HCFC–22 necessary to avoid shortages. EPA believes that it is appropriate to allocate HCFC–22 based on demand (and considering the role of reclamation) because this will help the transition to the 2015 phase-down step, when the cap is reduced from 25% to 10% of baseline. While EPA is not ''reserving'' room under the cap for these other HCFCs, the effect of allocating allowances based on need is additional room under the aggregate HCFC cap for any HCFCs that EPA has not specifically included in §§ 82.16, 82.18, and 82.19.

One commenter encouraged EPA to retire the remaining allowances that have not been allocated under this rulemaking. This commenter was concerned that if EPA maintained a reserve, the market will look to the Agency to allocate additional HCFC–22 allowances in the future instead of seriously pursuing recovery and reclamation. EPA disagrees that the unallocated room under that cap constitutes a set of allowances that can be ''retired''; it simply represents the differential between the cap and the amount of allowances allocated. As stated earlier, room under the cap provides for potential market penetration of other HCFCs that do not have allocations. Furthermore, the Agency is not maintaining a ''reserve'' to be allocated at a future time but rather is maintaining an accounting of the total U.S. HCFC production and consumption to ensure compliance with the HCFC cap. EPA does not intend to allocate the extra amount under the cap, except under unforeseen extenuating circumstances, because it is important to promote greater use of recycled and reclaimed material in anticipation of the next phasedown step.

V. Article 5 Allowances

Under the Montreal Protocol, industrialized countries and developing countries have different schedules for phasing out ODS production and consumption. Developing countries operating under Article 5, paragraph 1 of the Montreal Protocol in most cases have additional time in which to phase out ODS. Recognizing that it would be inadvisable for developing countries to spend resources to build new ODS manufacturing facilities to meet basic domestic needs for chemicals they would ultimately phase out, the Parties to the Montreal Protocol decided to permit a small amount of production in industrialized countries, in addition to the amounts otherwise permitted for such countries under the relevant phaseout schedules, for export to meet the basic domestic needs of developing countries. As discussed above, at the 19th Meeting of the Parties (MOP) to the Montreal Protocol held in September 2007, the Parties agreed to a revised phaseout schedule for both Article 5 and non-Article 5 Parties. Included with the changes to the phaseout schedule were changes to the amount of production in industrialized countries that would be permitted to meet the basic domestic needs of Article 5 Parties. These changes were in keeping with the more stringent phaseout schedule for developing countries. Previously, the Montreal Protocol had allowed non-Article 5 countries to produce at 15 percent of their baseline levels for export to Article 5 countries from 2016, the year in which Article 5 countries were required to freeze consumption, through the terminal phaseout in 2040. At the 19th MOP the Parties agreed that to satisfy basic domestic needs of Article 5 countries,

non-Article 5 Parties would be allowed to produce up to 10 percent of baseline levels until 2020. For the period after 2020, the Parties agreed to consider further reduction of the production for basic domestic needs no later than 2015 (*UNEP/Ozl.Pro.19/7 Decision XIX/6: Adjustments to the Montreal Protocol with regard to Annex C, Group I, substances (hydrochlorofluorocarbons*)).

Section 605(d)(2) of the Clean Air Act states that notwithstanding the restrictions on production, use, and introduction into interstate commerce set forth in paragraphs (a) and (b) of that section, EPA ''may authorize the production of limited quantities of a class II substance in excess of the quantities otherwise permitted under such provisions solely for export to and use in developing countries that are Parties to the Montreal Protocol, as determined by the Administrator'' (42 U.S.C. 7671d(d)(2)). EPA's implementing regulation at 40 CFR 82.18(a) provides for the allocation of ''Article 5 allowances'' for production of specified HCFCs solely for export to Article 5 Parties to meet those countries' basic domestic needs. Currently under § 82.18(a) an entity that is apportioned baseline HCFC production allowances receives an amount of Article 5 allowances equal to 15 percent of that production baseline. The Article 5 Parties are listed at 40 CFR part 82, subpart A, appendix C, annex 4. In the proposed rule, EPA cited Appendix E of the same subpart which contained a less current list of Article 5 Parties than the one at Appendix C, Annex 4. In this final rule, EPA is updating both appendices to accurately reflect decisions taken to date under the Montreal Protocol regarding the developing country status of particular Parties.

EPA is amending § 82.18(a) to reflect the adjustment to the Montreal Protocol at the 19th MOP and to ensure that the United States does not permit a level of production to meet basic domestic needs in Article 5 Parties that exceeds the level specified in the adjustments. EPA is taking this action in accordance with section 606(a)(3) of the Clean Air Act. EPA also is making minor changes to § 82.15(c) to clarify that HCFCs produced with Article 5 allowances may be introduced into interstate commerce if destined for export.

Prior to this final rule, § 82.18(a)(1) stated that a person apportioned baseline production allowances for specified HCFCs is also apportioned Article 5 allowances for the specified HCFCs equal to the following percentages of that person's baseline: For controls periods through 2014, 15 percent; for controls periods from 2015 through 2029, 10 percent; and for control periods from 2030 through 2039, 15 percent. While the Montreal Protocol previously permitted production for the basic domestic needs of Article 5 countries equal to 15 percent of the U.S. production baseline for each control period until 2040, section 605(d)(2)(B) of the Clean Air Act requires that for the period between 2015 and 2030 the production for Article 5 countries be limited to 10 percent of baseline. Thus, EPA regulations at § 82.18(a) prior to this rule restricted Article 5 allowances to 10 percent of production baseline from January 1, 2015, through December 31, 2029, but otherwise allowed the full 15 percent previously permitted by the Protocol.

In this final rule, EPA is adopting the approach in the proposed rule by amending § 82.18(a) to allocate Article 5 allowances for HCFC–22, HCFC–142b, and HCFC–141b at 10 percent of a person's baseline, for the period 2010–2019, with no Article 5 allowances beyond 2019, consistent with the recent changes to the Montreal Protocol. Prior to 2015, production for export to Article 5 Parties of HCFC–123, HCFC–124, HCFC–225ca, or HCFC–225cb would not require expending Article 5 allowances.

Given that Article 2F of the Montreal Protocol, as adjusted in September 2007, does not provide for additional HCFC production to meet the basic domestic needs of Article 5 Parties past 2019, EPA is discontinuing the Article 5 allowance provision for all HCFCs at the end of 2019 in the absence of further adjustments to the Protocol. If the Parties were to adjust the basic domestic needs provisions of the Protocol to permit continued production for such needs past 2019, EPA would evaluate that adjustment and consider issuing a regulation to extend the availability of Article 5 allowances for basic domestic needs to the extent consistent with the Clean Air Act. Any such regulation would include production levels and schedules that were at least as stringent as those specified in the Montreal Protocol, as adjusted.

EPA did not receive adverse comments regarding the revisions to § 82.18(a).

VI. Accelerated Use Restrictions Under CAA Section 605

In addition to allocating HCFC allowances, this rulemaking completes the implementation of section 605 of the Clean Air Act. Section 605(a) of the Clean Air Act is a self-effectuating ban on both the introduction into interstate commerce and use of class II substances. Section 605(a) reads:

''Effective January 1, 2015, it shall be unlawful for any person to introduce into interstate commerce or use any class II substance unless such substance—

(1) Has been used, recovered, and recycled;

(2) Is used and entirely consumed (except for trace quantities) in the production of other chemicals; or

(3) Is used as a refrigerant in appliances manufactured prior to January 1, 2020.

As used in this subsection, the term 'refrigerant' means any class II substance used for heat transfer in a refrigerating system.''

Although section 605(a) is effective by its own terms, Congress directed EPA in section 605(c) to promulgate regulations restricting the use of class II substances in accordance with section 605. In this action, EPA is adding regulatory language to reflect the section 605 provisions on introduction into interstate commerce and use of class II substances.

The provisions governing HCFC–22 and HCFC–142b promulgated as part of the 1993 phaseout rule were intended ''to prohibit the use of the chemicals (virgin material only) for any use except as a feedstock or as a refrigerant in existing equipment as of January 1, 2010'' (58 FR 15028). As promulgated, however, the regulatory prohibitions did not control use directly, but instead banned production and import for most uses. Through this action, EPA is adding the direct use prohibitions contemplated in the 1993 phaseout rule as well as the corresponding prohibitions on introduction into interstate commerce contained in section 605(a). Consistent with the accelerated schedule adopted in the 1993 phaseout rule, the section 605(a) restrictions on use and introduction into interstate commerce apply to HCFC–22 and HCFC–142b beginning in 2010 and to all other HCFCs beginning in 2015.[7] The section 605(a) restrictions for 2010 also apply to blends containing HCFC–22 or HCFC–142b. The restrictions on production and import, both in general and for particular uses, that were promulgated in 1993 are at 40 CFR 82.16(b) through (g). EPA is not changing these provisions in this action. However, EPA is further implementing

[7] The petition process for HCFC–141b exemption allowances at 82.16(h) would sunset in 2015, since HCFC–141b is not used as a refrigerant and thus does not meet the criteria established by 605(a) for an exception from the statutory ban on use. EPA intends to revise § 82.16(h) when it addresses the control periods 2015–2019.

section 605(a) by codifying a restriction at § 82.15 on introduction into interstate commerce and use and by clarifying its interpretation of the statutory requirements. Limited exceptions to the restrictions on the introduction into interstate commerce and use are discussed in detail in Section VI.D.

The existing regulatory provisions at § 82.16(c) prohibit the production or import of HCFC–22 and HCFC–142b in 2010 and beyond for purposes that are not exempted in that section, consistent with section 605(a).[8] In this action EPA is amending § 82.15 to add prohibitions that specifically preclude any person from introducing into interstate commerce or using (according to the interpretations below) any HCFCs for purposes that are not consistent with section 605. EPA believes that this is appropriate because section 605(a) specifically bans use and introduction into interstate commerce. Under the current regulatory structure the prohibitions apply to the production and import of the HCFC compounds as bulk chemicals. The new provisions promulgated in this action restrict uses of bulk chemicals, and thus apply to use of HCFCs by manufacturers of appliances and other products containing HCFCs, as well as use of HCFCs by anyone who services such products.

The provisions relating to introduction into interstate commerce and use also apply to blends containing HCFC–22 or HCFC–142b.[9] Bulk gases include both neat HCFC–22 (or HCFC–142b) and blends containing HCFC–22 (or HCFC–142b). Blends of refrigerants are substances, not products, and thus are subject to the restrictions that apply to non-blended substances.

This action also revises the regulations on export production allowances at 40 CFR 82.18(b) to ensure consistency with section 605(a). Export production allowances allow an HCFC that is subject to a domestic phaseout to be produced for export to Parties that continue to allow imports of that substance. Prior to this rulemaking, entities holding baseline production allowances for HCFC–141b were allocated export production allowances equal to 100 percent of their baseline production allowances until December 31, 2029. To avoid a conflict with the section 605(a) restrictions on use and introduction into interstate commerce, EPA is discontinuing this provision on December 31, 2009. Under the definition finalized in this rule, ''introduction into interstate commerce'' includes release of HCFCs by the domestic manufacturer for distribution and transport prior to export. HCFC–141b is not used as a refrigerant and has not been used in transformation processes; therefore, the current export production allowances would have no remaining purpose with the implementation of the 605(a) use ban. EPA is not allocating export production allowances for any other HCFCs; however, as discussed in Section V, EPA is allocating Article 5 allowances for meeting the basic domestic needs of developing countries. EPA received no negative comments on the discontinuation of export production allowances.

A. Definition of ''Introduction Into Interstate Commerce''

Since the promulgation of the 2003 allocation rule, EPA has received questions from stakeholders regarding the Agency's interpretation of section 605(a). Based on these questions, EPA has included in this final rule a discussion of how it interprets that section, particularly the terms ''introduction into interstate commerce'' and ''use.'' This action promulgates a definition of interstate commerce to facilitate the implementation of section 605(a).

Section 605(a) states that ''it shall be unlawful for any person to introduce into interstate commerce * * * any class II substance'' unless certain exceptions apply. Section 611 (Labeling) contains a similar phrase, noting that certain products shall not be ''introduced into interstate commerce'' unless the product bears a clearly legible and conspicuous warning label. EPA's definition of interstate commerce for section 611 purposes appears at 40 CFR 82.104(n):

Interstate commerce means the distribution or transportation of any product between one state, territory, possession or the District of Columbia, and another state, territory, possession or the District of Columbia, or the sale, use or manufacture of any product in more than one state, territory, possession or District of Columbia. The entry points for which a product is introduced into interstate commerce are the release of a product from the facility in which the product was manufactured, the entry into a warehouse from which the domestic manufacturer releases the product for sale or distribution, and at the site of United States customs clearance.

After considering this regulatory definition, and noting the similarities in the statutory language, EPA is amending § 82.3 to include a definition of ''interstate commerce'' that is identical to the definition at § 82.104(n), except that the phrase ''controlled substance'' appears where the § 82.104(n) definition uses the term ''product.'' This is because section 605(a) addresses bulk substances rather than products. Adding a definition of interstate commerce to § 82.3 clarifies the applicability of the section 605(a) provisions. Using a definition that is already well-established in the labeling program minimizes stakeholder confusion.

Under this definition, ''introduction into interstate commerce'' includes release of HCFCs by the domestic manufacturer of those HCFCs for distribution and transport prior to export. The section 605(a) ban thus has relevance to the export of HCFCs—limiting exports to HCFCs that are ''used, recovered, and recycled'' (section 605(a)(1)); HCFCs that are destined for transformation (section 605(a)(2)); HCFCs that will be used as a refrigerant in appliances manufactured before the date specified in the regulations (section 605(a)(3)); and HCFCs that will be exported to Article 5 Parties (section 605(d)(2)). As a result, HCFC exports to non-Article 5 Parties are limited as of January 1, 2010, for HCFC–22 and HCFC–142b (and blends containing those compounds) and January 1, 2015, for HCFC–123, HCFC–124, HCFC–225ca, and HCFC–225cb (and blends containing those compounds).

One commenter expressed concern about its ability to export HCFC–22, HCFC–142b, and blends thereof beginning January 1, 2010, and HCFC–123, HCFC–124, and blends thereof beginning January 1, 2015, to non-Article 5 countries. The commenter stated its belief that the exception in section 605(a)(3) for use ''as a refrigerant in appliances manufactured prior to January 2020'' is not limited to appliances within the borders of the United States, and thus export of HCFCs should be allowed to service such appliances outside the United States. The commenter also provided regulatory language to support this idea, suggesting EPA add to both 82.15(g)(2) and 82.15(g)(3) the language ''for other export as allowed under the provisions of the Montreal Protocol.'' EPA agrees that the exemptions provided in 605(a) are not limited to the boundaries of the

[8] As discussed earlier in this action, there is an additional exception for production to meet the basic domestic needs of Article 5 countries, consistent with section 605(d).

[9] Listed here with both the trade name and ASHRAE number where available, they include, but are not limited to the following: MP–39 (R–401A), MP–66 (R–401B), MP–52 (R–401C), GHG (R–406A), FX–56 (R–409A), Hot Shot (R–414B), GHG–X4 (R–414A), Choice Refrigerant (R–420A), Freeze 12, Free Zone, GHG–HP, GHG–X5, HP–80 (R–402A), HP–81 (R–402B), FX–10 (R–408A), R–411A, R–411B, G2018C, R–403B, NARM–502.

United States and reiterates that exports of HCFC–22 and HCFC–142b to non-Article 5 Parties are allowable if those HCFCs (1) are used, recovered, and recycled, (2) will be used for transformation, or (3) will be used as a refrigerant in appliances manufactured before January 1, 2010. Because the current regulatory language does not prohibit such exports, EPA does not believe it is necessary to change the regulatory text as suggested by the commenter.

Three commenters stated that the definition of ''introduction into interstate commerce'' penalizes domestic manufacturers by effectively banning the export of pre-charged appliances containing HCFC–22 to Article 5 countries. One of these commenters requested that EPA treat pre-charged equipment intended for export to Article 5 countries in the same fashion as it does the export of bulk refrigerant. Specifically, EPA should allow the factory to charge equipment intended for export and count that usage of HCFC–22 against the total production cap. Another commenter said the export ban to Article 5 countries could detrimentally affect its partners' ability to fund the research and development of new technologies for the domestic market. This commenter stated that this export ban is contrary to the spirit of the Montreal Protocol. The third commenter stated that this ban would only cost U.S. manufacturing jobs without yielding an environmental benefit.

The inability to export pre-charged appliances derives from the section 605(a) prohibition on use of HCFCs, since manufacturers would not be able to use HCFC–22 to charge newly manufactured appliances and thus could not manufacture such equipment for either domestic or foreign markets. At the point of entry into interstate commerce, any appliances containing HCFC refrigerant would be covered under provisions in the Pre-Charged Appliances rule (discussed in conjunction with this rule in Section III of this preamble) regarding sale and distribution in interstate commerce, not under the section 605(a) introduction into interstate commerce provision, which pertains to substances rather than products. Therefore, the comment suggesting that EPA allow factories to charge equipment intended for export and to count that usage of HCFC–22 against the total production cap is not consistent with EPA's interpretation of the 605(a) use ban, as the use of the bulk HCFC–22 to produce the new equipment is prohibited under 605(a). Furthermore, export of any new appliances and components containing HCFC–22 is prohibited under the Pre-Charged Appliances rule.

Section 605(d)(2) states that notwithstanding 605(a) and (b), which contain the use and production restrictions on HCFCs, EPA may authorize production of limited quantities of HCFCs ''solely for export to and use in developing countries.'' The restrictions in section 605(a) and (b) pertain to bulk substances, not to products. In addition, section 605(d)(2) refers to HCFCs directly, and not to products containing HCFCs. EPA interprets section 605(d)(2) as allowing production of these ODS where the ODS themselves, as bulk substances, will be exported to developing countries for use in those countries. EPA does not interpret section 605(d)(2) as allowing use of HCFCs in U.S. product manufacture, even where the products are destined for use in developing countries.

EPA notes that export of appliances that do not contain an HCFC refrigerant charge is legal under both this final allocation rule and the pre-charged products rule. In addition, as noted above, EPA is not prohibiting introduction of HCFCs into interstate commerce for the purpose of export to Article 5 countries.

B. Interpretation of the Term ''Use''

In addition to banning ''introduction into interstate commerce'' of HCFCs, section 605(a) also bans the ''use'' of HCFCs. This section discusses EPA's interpretation of the term ''use'' in section 605(a). This discussion builds on EPA's 1993 rulemaking that prohibited production and import of HCFC–22 and HCFC–142b for most uses as of January 1, 2010.

Section 605(a) states that ''effective January 1, 2015, it shall be unlawful for any person to * * * use any class II substance unless such substance—

(1) Has been used, recovered, and recycled;

(2) Is used and entirely consumed (except for trace quantities) in the production of other chemicals; or

(3) Is used as a refrigerant in appliances manufactured prior to January 1, 2020.

As used in this subsection, the term 'refrigerant' means any class II substance used for heat transfer in a refrigerating system.''

Interpretation of the term ''use'' is important for the proper implementation of section 605(a). EPA carefully considered what the term ''use'' means for purposes of section 605(a). EPA analyzed whether ''use'' in this context pertains to end-users and how this could affect the public's continued operation of products such as refrigeration and air conditioning equipment. EPA also evaluated whether section 605(a) pertains only to manufacturing and servicing use. The three exemptions to the use prohibition found in 605(a) were helpful to EPA's understanding of what ''use'' means for purposes of that section.

With regard to products containing HCFCs for non-refrigerant purposes such as TXVs, sterilant mixtures, and products exempt from the section 610 ban on nonessential products, EPA interprets the term ''use'' as relating to the manufacture (and where applicable, the service) of those products, not the utilization of those products in the hands of an end-user. By accelerating section 605(a), EPA prohibited all ''use'' of virgin HCFC–22 and HCFC–142b (and blends thereof) for purposes other than the two exempted in section 605(a)(2) and (3) (*i.e.* transformation and as a refrigerant in appliances manufactured before January 1, 2010) beginning January 1, 2010. For example, HCFC–142b may no longer be used to blow foam, which was its primary use prior to 2010. EPA notes that uses not covered in section 605(a)(2) and (3) could continue if the HCFC is used, recovered, and recycled per section 605(a)(1). EPA received comments that HCFC–22 continues to be used in a sterilant blend and in thermostatic expansion valves (TXVs). In this final rule, EPA is creating limited exemptions from the accelerated use prohibition for these specific uses.

With regard to HCFCs used as refrigerants, EPA interprets the term ''use'' to mean initially charging as well as maintaining and servicing refrigeration equipment. Again, EPA does not read use to mean the continued utilization of a finished product owned by an end user. The three statutory exceptions in Section 605(a) inform EPA's understanding of the term ''use.'' While these exceptions apply to the ''interstate commerce'' ban as well as the ''use'' ban, the discussion below focuses on the ''use'' aspects of the exceptions.

The first exception, at section 605(a)(1), applies to class II substances that have been ''used, recovered, and recycled.'' This exception confirms EPA's understanding of the use ban as limited to the manufacture and servicing of HCFC products. If the ban applied to the use of HCFCs by a consumer, it might include the continued operation of an appliance (*e.g.,* a residential air conditioner) where an HCFC acts as the refrigerant. Under this broad definition of ''use,'' there would be an incentive for consumers to

hire servicing technicians to recover the HCFCs from appliances already in their homes and businesses, to recycle the HCFCs for reuse, and to charge the HCFCs back into the same appliances. These steps should not be necessary for continued operation of installed equipment. However, by taking these steps, consumers could avail themselves of the exception for ''used, recovered, and recycled'' substances at section 605(a)(1). There would be no environmental benefit to following such a procedure. There could even be an environmental detriment, given the potential for losses of refrigerant during the recovery and recycling process. EPA does not believe that Congress intended such a result. Moreover, EPA believes that Congress intended to permit the continued use of previously manufactured appliances, as indicated by the third exception to the use ban (section 605(a)(3)). EPA did not receive comments indicating that ''use'' should be understood to include use by the end-user. Thus, EPA is not interpreting use in a way that would result in shortening the useful lifetime of appliances that were manufactured prior to the effective date of the use restriction. EPA concludes that the section 605(a) ''use'' ban does not apply to a consumer's operation of equipment that contains HCFCs. Rather, it applies to the manufacture and servicing of equipment containing HCFCs. EPA believes that Congress meant for the section 605(a)(1) exception to allow the use of ''used, recovered, and recycled'' HCFCs in appropriate instances by servicing technicians and reclaimers.

EPA had proposed to interpret this exception to allow use of reclaimed HCFCs by manufacturers, as well. However, in the Pre-Charged Appliances rule EPA is prohibiting sale and distribution in interstate commerce of pre-charged appliances and components manufactured after January 1, 2010, including any such appliances and components charged with reclaimed material. Equipment charged with reclaimed HCFCs is covered by the final pre-charged appliance prohibition due to the difficulty of distinguishing between new and reclaimed material. The prohibition on sale and distribution of the appliances effectively ends the use of all HCFCs, including reclaimed HCFCs, in the manufacture of the appliances. EPA believes this outcome is appropriate because it is not practicable to achieve the Congressional goal of ending use of virgin HCFCs in the manufacture of new appliances without simultaneously banning use of reclaimed HCFCs in pre-charged appliances. Further information can be found in the preamble and response to comments document in the docket to that rule.

The second exception, at section 605(a)(2), refers to HCFCs that are ''used and entirely consumed (except for trace quantities) in the production of other chemicals.'' Similar language appears as an exception to the definition of ''production'' at section 601(11). EPA regulations refer to this type of use as ''transformation'' (see the definition of ''transform'' at 40 CFR 82.3). The current phaseout schedule for HCFC production and consumption already includes a transformation exception within § 82.16. EPA did not receive any comments on this issue. EPA is implementing the transformation exception in section 605(a)(2) consistent with the transformation exception to the HCFC production phaseout.

The third exception, at section 605(a)(3), provides for HCFCs that are ''used as a refrigerant in appliances manufactured prior to January 1, 2020.'' EPA reads this exception as allowing appliances, as defined in the CAA, manufactured before the specified date to be serviced with virgin HCFCs. (The meaning of the term ''manufactured'' is discussed below.) This is consistent with the legislative history of the exception. The predecessor to section 605(a)(3) in the Senate bill was an exception for ''other regulated substances'' (such as HCFCs) that are ''used to maintain and service household appliances or commercial refrigeration units manufactured prior to January 1, 2015.'' The House amendment contained identical language. While the language that emerged in the Conference Agreement is less specific, we can infer that this exception was intended to address, at a minimum, maintenance and servicing needs.

Based on these three exceptions to the ban, EPA interprets the term ''use'' in section 605(a) to mean, with regard to HCFCs used as refrigerants, initially charging as well as maintaining and servicing refrigeration equipment. Any finished product that is owned by end users may continue to be utilized. As written, the section 605(a)(3) exception would permit some newly manufactured appliances (*i.e.,* those manufactured prior to January 1, 2020) to be charged with virgin HCFCs following the effective date of the use ban. In the 1993 phaseout rule, however, EPA banned production and import of HCFC–22 and HCFC–142b, effective January 1, 2010, for use in equipment manufactured after January 1, 2010. EPA also indicated in the preamble to that rule that it intended to ban use of virgin HCFC–22 and HCFC–142b in such equipment. Consistent with decisions made in the 1993 rule, EPA is applying the section 605(a)(3) exception such that virgin HCFC–22 and HCFC–142b, and blends containing HCFC–22 or HCFC–142b, may be used for servicing and maintenance of appliances manufactured before 2010 but may not be used in the manufacture of equipment after January 1, 2010. EPA is taking this action under the authority of section 606 of the Clean Air Act. EPA notes that allowable servicing could entail a wide range of activities including replacing parts or components. Per the accompanying Pre-Charged Appliances rule, these parts and components may contain HCFCs (including virgin material) if manufactured prior to January 1, 2010, but must be shipped without HCFC (*i.e.* dry or with a nitrogen holding charge) if manufactured after January 1, 2010. For the low-ODP refrigerants covered by section 82.16(d) (HCFC–123, HCFC–124, HCFC–225ca, and HCFC–225cb), however, EPA is not accelerating the January 1, 2015, effective date or the January 1, 2020, cutoff date in section 605(a)(3). Thus, for these low-ODP refrigerants, virgin material may be used as a refrigerant in appliances manufactured before January 1, 2020. This will allow initial charging of appliances using low-ODP HCFCs for a limited period following the effective date of the use restriction as well as servicing and maintenance uses.

Although EPA has not received comment on it, HCFC–22 and HCFC–142b, both neat or in blends with other fluids, have also been used in a broader range of products, including some products subject to, and other products exempt from, the nonessential products ban at section 610 of the CAA. Section 610(d) includes a self-effectuating ban on the sale of aerosol products and other pressurized dispensers, and plastic foam products that are not insulating foam products that contain HCFCs. EPA promulgated regulations that established a list of products exempted from the nonessential products ban. These products, listed in 40 CFR 82.70, consist of lubricants, coatings, or cleaning fluids for electrical or electronic equipment; lubricants, coatings, or cleaning fluids used for aircraft maintenance; mold release agents used in the production of plastic and elastomeric materials; spinnerette lubricants and cleaning sprays used in the production of synthetic fibers; document preservation sprays; portable fire extinguishing equipment used for

non-residential applications; wasp and hornet sprays for use near high-tension power lines; and foam insulation products (as defined in § 82.62).

While certain products containing HCFC–22, HCFC–142b, or blends thereof, are exempt from the nonessential products ban, EPA reads section 610 and section 605(a) together. By prohibiting use and introduction into interstate commerce of HCFCs as bulk substances, section 605(a) effectively prohibits the continued manufacture of any products containing HCFCs (which qualifies as a type of ''use'') unless specifically exempted in that section. None of the products exempt from the section 610(d) nonessential products ban fall under the 605(a) exemptions. Therefore, EPA clarifies here that such products are prohibited from continued manufacture, unless manufactured with recovered HCFCs. EPA believes that this will not impose any burden as manufacturers of these products have transitioned to alternatives.

Finally, EPA does not interpret ''use'' to include destruction, recovery for disposal, discharge consistent with all other regulatory requirements, or other similar actions where the substance is part of a disposal chain. At the point disposal-related actions occur, other statutory and regulatory provisions generally govern. For example, Congress addressed the issue of disposal under section 608. EPA has promulgated regulations to implement section 608 for appliances: These safe disposal requirements are codified at 40 CFR part 82 subpart F. In some instances, HCFCs may need to be introduced into interstate commerce in order to reach an appropriate destruction facility. Consistent with its interpretation of ''use,'' EPA is interpreting the interstate commerce prohibition to exclude introduction into interstate commerce for the purpose of destruction.

C. Interpretation of the Phrase ''Appliances Manufactured Prior To''

The exception in section 605(a)(3) limits introduction into interstate commerce and use to situations where the HCFC ''is used as a refrigerant in appliances manufactured prior to'' the specified date. EPA did not propose a definition of ''appliance'' specific to this action as ''appliance'' is already defined in 40 CFR part 82, subpart F, [10] based on the definition provided in section 601 of the Clean Air Act. Commenters requested clarification from EPA on what is an appliance, therefore, to facilitate understanding of this issue EPA is adding this same definition to Subpart A in 40 CFR 82.3. An appliance is ''any device which contains and uses a refrigerant and which is used for household or commercial purposes, including any air conditioner, refrigerator, chiller, or freezer.'' Many devices meet the section 601 definition of appliance. For example, commercial refrigeration includes end uses such as retail food refrigeration and cold storage. Industrial process refrigeration includes complex customized appliances used in the chemical, pharmaceutical, petrochemical, and manufacturing industries. This sector includes industrial ice machines, appliances used directly in the generation of electricity, and ice skating rinks. Other types of appliances include household refrigerators and freezers; chillers; water coolers; vending machines; residential dehumidifiers; and unitary systems including residential and light commercial heat pumps. Appliances are separate from components, which are the individual parts of an appliance, such as a condensing unit or line set, that by themselves cannot function to provide a cooling effect. In considering the meaning of ''manufactured,'' EPA has considered the definition of appliance carefully, particularly evaluating at what point a group of components become a manufactured appliance.

In the final rule, EPA is providing a definition of the term ''manufactured.'' This definition can also be found in the companion Pre-Charged Appliances rule. The term manufactured ''for an appliance, means the date upon which the appliance's refrigerant circuit is complete, the appliance can function, the appliance holds a full refrigerant charge, and the appliance is ready for use for its intended purposes; and for a pre-charged appliance component, means the date that such component is completely produced by the original equipment manufacture, charged with refrigerant, and is ready for initial sale or distribution in interstate commerce.''

Small appliances, such as refrigerators and window air-conditioners, thus are ''manufactured'' at the manufacturing facility. For instance, an appliance that has been pre-charged with the desired amount of refrigerant, has gone through the entire production line so that all mechanical and electrical procedures are complete, and is a ''stand-alone'' piece of equipment (*i.e.,* it only needs to be plugged into an electrical outlet and turned on to function properly) is ''manufactured'' when it is placed into the manufacturer's initial inventory. Appliances used in commercial refrigeration and industrial process refrigeration typically involve more complex installation processes and may require custom-built parts and thus are considered differently. Appliances that are field charged or have the refrigerant circuit completed onsite, regardless of whether additional refrigerant is added or not, are ''manufactured'' at the point when installation of all of the components and other parts are completed and the appliance is fully charged with refrigerant. Some components, such as condensing units for split-system air conditioners, contain a refrigerant charge from the factory but are then typically adjusted in the field at the time the appliance is installed to account for different line sizes and indoor unit configurations. EPA considers the ''manufacture'' of that split-system similar to that for field-charged equipment; that is, manufacture is not complete until the device is installed in the field and fully charged. EPA clarifies that ''the date upon which the appliance's refrigerant circuit is complete'' means the initial date, and does not include any opening and re-closing of the refrigerant loop as a result of servicing.

EPA received thirteen comments regarding its interpretation of the term ''manufacture.'' Commenters were primarily concerned with the effect that this interpretation will have on inventory that is still unsold after January 1, 2010. EPA discusses below its effort to minimize the effect on existing inventory. Eight commenters recommended that EPA define manufacture as the date the product, whether it is a complete appliance or not, leaves the original equipment manufacturer's (OEM) final assembly process, is packaged for shipment, and placed into initial inventory. EPA believes the commenters' concern arises with how the two terms ''appliance'' and ''manufacture'' are applied together. Small appliances, *i.e.,* devices that have a completed refrigerant circuit, are fully charged, and are functional and ready for use at the time they leave the factory are ''manufactured'' at the time they are placed into initial inventory at the factory and are shipped as complete ''appliances'' rather than as a set of components. In contrast, appliances used in commercial refrigeration and industrial process refrigeration are not placed in inventory or shipped as complete ''appliances.'' In such cases, OEMs are manufacturing components, not appliances. The point of manufacture of the commercial or industrial process refrigeration

[10] *See* 40 CFR 82.152 which contains the definition of ''appliance'' as well as examples of types of appliances in the definitions of ''commercial refrigeration,'' ''industrial process refrigeration,'' and ''small appliances.''

appliance occurs after the components have left the factory. EPA has consistently stated its interpretation that individual components such as condensers, evaporators, compressors, line sets, and valves in themselves do not constitute an appliance. In an earlier rulemaking addressing the sales of pre-charged appliance components, the Agency stated that pre-charged components are parts of but ''are clearly not appliances'' (November 9, 1994; 59 FR 55912). Commenters to the companion Pre-Charged Appliances rule noted that EPA provides similar language on its refrigerant sales restriction factsheet (found at (*www.epa.gov/ozone/title6/608/sales/sales.html*), which states that ''EPA considers a 'part' to be any component or set of components that makes up less than an appliance. For example, this includes line sets, evaporators, or condensers that are not sold as part of a set from which one can construct a complete split system or other appliance. EPA considers a part to be 'pre-charged' if it contains a CFC or HCFC that will become part of the operating charge of an appliance.'' EPA defines ''pre-charged components'' in the Pre-Charged Appliances rulemaking. In this HCFC allocation rule, EPA is clarifying that the appliance itself is not manufactured until the component parts, whether pre-charged or not, are fully installed and charged.

Five commenters stated that the proposed interpretation would negatively affect HVAC equipment used in commercial and residential buildings (including modular buildings). For example, a situation could arise where both the pre-charged condensing unit and indoor coil would be produced and possibly shipped prior to January 1, 2010, but the refrigerant loop would not be completed until after that date. As described above, EPA believes that placement of components into initial inventory or partial installation of certain components does not make sense as a definition of manufacture for split systems or other such appliances. In effect, what these commenters are requesting is that the appliance be considered manufactured when all of its component parts, or one specific part, are placed into initial inventory, not when those various parts are combined into a functional appliance, as defined at Section 82.152.

Fourteen commenters expressed concern that EPA's interpretation of manufacture will strand existing inventory of components and present a financial burden to OEMs, distributors, and contractors holding that equipment. EPA disagrees with the comment that inventory will have to be scrapped or that there are no further uses of that equipment. First, section 605(a) provides an exception to the use ban for used, recycled, or reclaimed refrigerant. Thus, reclaimed refrigerant could be used to charge components being installed in the field so as to manufacture a completely new appliance so long as charging occurs at the installation site rather than at the factory. Note that under the Pre-Charged Appliance rule, components could not be shipped with a charge of HCFC–22 or HCFC–142b, or blend thereof (even if reclaimed), but could be charged with a nitrogen holding charge or shipped dry. Second, pre-charged components manufactured before 2010 can be sold to service existing equipment. For example, an HCFC–22 condensing unit that fails after 2010 may be replaced with a similar HCFC–22 condensing unit that was manufactured prior to January 1, 2010. There is no limitation on whether the component contains virgin or reclaimed HCFC–22 or is shipped dry in this instance as the component was manufactured prior to January 1, 2010, and is being used for servicing rather than appliance manufacture. These continued uses of existing equipment allow holders of existing inventory to continue selling such equipment. Manufacturers, however, are prohibited from producing and charging with HCFC–22 components designed for use solely in the manufacture of new HCFC–22 systems after December 31, 2009. Based on comments submitted to this rule and made in prior stakeholder meetings, EPA does not anticipate OEMs producing such components or systems after December 31, 2009.

The continued sale of existing inventory will both reduce burden to stakeholders and be protective of the environment. EPA considers replacement of components as within the definition of servicing of existing equipment. EPA's Vintaging Model takes into account repairs such as these when modeling the lifetime of the appliance. Thus, allowing replacement of components with existing inventory does not change the estimated servicing demand. Furthermore, there may be no overall benefit to the environment in requiring companies holding existing equipment to scrap their inventory. In addition to the solid waste generated, there is the potential for losses of refrigerant during recovery and subsequent handling of the refrigerant.

EPA also received comments requesting a limited waiver for HCFC–22 and HCFC–142b appliances that had been scheduled for use in projects, such as construction projects, prior to January 1, 2010, but not yet completed. Commenters provided a range of scenarios in which building plans were established, but ground had not yet been broken, or appliance components ordered but not yet installed. Commenters noted that an increased financial burden would be borne by those who had made ''good faith'' attempts to adhere to the HCFC–22/HCFC–142b use ban prior to 2010, but for various reasons beyond their control (*e.g.,* budget shortfalls, weather delays, labor strikes) would not be able to complete projects prior to January 1, 2010. Commenters stated that EPA should accommodate new installations specifying HCFC–22 or HCFC–142b appliances that have entered into contracts, completed the bidding process, or have received building code approval prior to January 1, 2010.

In response to these concerns, EPA is granting flexibility in limited instances where projects have begun but due to delays have not yet been completed prior to January 1, 2010. EPA is adding to § 82.15(g)(2) the following exception: ''Introduction into interstate commerce and use of HCFC–22 is not subject to the prohibitions in paragraph (g)(2)(a)) of this section if the HCFC–22 is * * * for use as a refrigerant in appliances manufactured before January 1, 2012, provided that the components are manufactured prior to January 1, 2010, and are specified in a building permit or a contract dated before January 1, 2010, for use on a particular project.'' EPA does not intend to establish an across-the-board exemption to the phaseout period, but is adjusting the accelerated section 605(a) phaseout to allow for unforeseen delays in limited circumstances. In general, the Agency feels that ample time has been granted to allow chemical, appliance, and component manufacturers to phase out the manufacture of products dependent on HCFC–22, HCFC–142b, and blends thereof that are not intended to service existing installations. In 1993 EPA issued the first rule banning the production of HCFC–22 and HCFC–142b for use in equipment manufactured before January 1, 2010. Nonetheless, after considering comments, EPA is granting some flexibility to address particular circumstances affected by the definition of ''manufacture'' proposed in the December 23, 2008, proposal. EPA believes that a two year grandfathering provision will provide sufficient time to those who are bound by either a contract or building permit but facing

delays to complete the installation (*i.e.,* ''manufacture'') of such equipment.

EPA recognizes that building permits and contractual arrangements exist for construction projects that involve air-conditioning systems that will not be ''manufactured'' (*e.g.,* completion of the refrigerant circuit) until after December 31, 2009. In response to comments expressing this concern, this rule establishes a grandfathering provision which allows appliances containing HCFC–22, HCFC–142b, or blends thereof to be ''manufactured'' onsite for a particular project between January 1, 2010, and December 31, 2011, if their components are made prior to January 1, 2010, and specified for use at that project under a building permit or contract dated before January 1, 2010. EPA believes this will provide relief to the various concerns that were expressed by stakeholders.

EPA does not anticipate that this grandfathering will affect total modeled demand. The Vintaging Model assumes that this equipment was installed in 2009 and estimates servicing need based on 2009 as the date of manufacture. If not installed in 2009 but rather installed in subsequent years, the model already assumes it is installed, so the total servicing demand is not affected, though it is shifted forward in time. Thus, the model may underestimate actual annual demand from 2010 onward.

D. Exceptions to the Accelerated Use Restrictions

In the proposed rule, EPA clarified its prior interpretation from the 1993 phaseout rule (58 FR 15028) that the Agency was accelerating the section 605(a) prohibition on use of virgin HCFC–22, HCFC–142b, and blends thereof, except as a feedstock or as a refrigerant in existing equipment as of January 1, 2010. The accelerated use ban derives from EPA's authority under section 606 of the Clean Air Act to phase out the use of class II substances more rapidly than the schedule set forth in section 605. Under section 606, the Administrator is to accelerate the schedule ''if based on the availability of substitutes for listed substances, the Administrator determines that such more stringent schedule is practicable, taking into account technological achievability, safety, and other relevant factors.'' As discussed above, EPA believes that alternatives are available for HCFC–22 and HCFC–142b and therefore believes it is appropriate to accelerate the schedule. However, EPA received comments that described niche applications for HCFC–22. These two uses are for medical equipment and for thermostatic expansion valves (TXVs). In those two instances, EPA does not believe that the accelerated 605(a) ban is practicable, because while alternatives exist, it is not feasible to implement them immediately. In this final rule, EPA is exempting virgin HCFC–22 for use in TXVs and for medical equipment from the 2010 accelerated ban on introduction into interstate commerce and use.

The existing regulations at 40 CFR 82.16(c) prohibit, beginning January 1, 2010, the production and import of HCFC–22 for all uses except for use in a process that results in their transformation or destruction, for use as a refrigerant in equipment manufactured prior to January 1, 2010, or for limited export. Therefore, these users have had notice of the upcoming ban on production. However, EPA believes that there is benefit in allowing for the continued use of already produced material in these few specific non-refrigerant uses. Therefore, under this rule EPA is exempting the use of HCFC–22 produced prior to January 1, 2010, for TXVs and medical equipment. This limited exception ends December 31, 2014, as that is the date upon which all uses of HCFCs, except for those specifically enumerated in section 605(a), are banned.

1. Thermostatic Expansion Valves

EPA received several comments regarding the effect the proposed rule would have on the use and manufacture of thermostatic expansion valves (TXV). A TXV is a hermetically sealed valve that uses a very small amount of HCFC–22; one commenter said that they contain as little as 3 grams of HCFC–22. TXVs increase the efficiency of air conditioning and refrigeration equipment by carefully regulating the flow of refrigerant in the refrigerant circuit. The HCFC–22 contained in a TXV is separate from the HCFCs that act as refrigerants in the refrigerant circuit. As such, one commenter stated that TXVs should be exempt from regulation because the HCFC–22 charged in the TXV bulb does not provide cooling effect. EPA believes the intent of this comment was to allow for the continued sale of TXVs under EPA's companion Pre-Charged Appliances rule. EPA agrees that the HCFC–22 sealed within TXVs is not used for heat transfer purposes and not part of the refrigerant loop. Since it is not used for heat transfer in a refrigeration system the HCFC–22 used in TXVs is therefore not used as a ''refrigerant'' as defined in section 605(a). Therefore, this use of HCFC–22 is not exempted under section 605(a)(3).

Under section 605(a), the manufacture of TXVs containing HCFC–22 and HCFC–142b could continue if the HCFC in the TXV is used, recycled, or reclaimed.[11] Commenters argued that reclaimed HCFCs would not be appropriate for TXVs. They stated that virgin HCFC–22 has 100–200 ppmv volatile impurities while the ARI Standard 700 allows a maximum of 5,000 ppmv volatile impurities in reclaimed refrigerant. Commenters stated that the effects of these additional impurities are not yet understood and the TXV industry has not yet analyzed the effects or searched for alternatives to HCFC–22 in TXVs. Commenters told EPA that they expect they could complete such research within two years. In the meantime, however, they expressed concerns that not using an appropriate valve could cause a system to run inefficiently and possibly lead to catastrophic failure, with the associated possible loss of ODS.

One commenter argued against banning the sale of TXVs because they said that any loss from a leaky valve would be less than the de minimis loss associated with routine servicing. EPA disagrees with the commenter's suggestion to consider providing a de minimis exception in this instance. EPA has regulated many products that individually contain small amounts of ozone-depleting substances, such as aerosols and metered dose inhalers. While EPA agrees that a single TXV contains a small amount of HCFC–22, the amount of HCFC contained within a single product is not determinative of whether the total amount of HCFCs contained in such products is trivial.

EPA understands that the TXV manufacturers may not have been aware of the effects this rulemaking would have and agrees relief is appropriate to allow TXV manufacturers time to research appropriate alternatives, including reclaimed material. Such alternatives include cross-charge valves, which are valves that contain a different HCFC from the refrigerant found in the refrigerant loop. These valves currently exist but not all air-conditioning and refrigeration systems are compatible with a cross-charge valve. Further research can also be conducted to ascertain whether reclaimed HCFCs are suitable for use in TXVs.

As described above, EPA's interpretations of ''introduction into interstate commerce'' and ''use'' do not affect products manufactured prior to January 1, 2010. Therefore, existing

[11] EPA is not aware of any TXVs that use HCFC–142b; thus this provision only addresses TXVs containing HCFC–22.

TXVs may be used as replacements in existing air-conditioning and refrigeration equipment. Based on the comment that millions of TXVs are used each year, EPA does not believe that the existing inventory can meet the servicing demand of all remaining existing equipment. Nor does EPA believe that production of additional TXVs could be increased so shortly before January 1, 2010.

The lack of a TXV could result in a system running less efficiently or, in a worst case scenario, lead to compressor damage. EPA is concerned that failing to ensure an adequate supply of TXVs will result in the unintended consequence of removing existing equipment from service faster than anticipated. While likely rare, EPA wants to avoid the result of requiring existing equipment owners to have to replace an entire system due to the unavailability of an inexpensive valve. Therefore, this final rule allows for the introduction into interstate commerce and use of HCFC–22 produced prior to January 1, 2010, to be used until January 1, 2015, for the manufacture of TXVs.

2. Medical Equipment

Commenters to this rule also informed EPA that two companies continue to use a product containing ethylene oxide, HCFC–124, and HCFC–22 to sterilize medical equipment. One is a major manufacturer of intraocular lenses that are surgically implanted into the eye to treat cataracts. The other reprocesses costly heart catheters that were once discarded after a single use. After the close of the comment period, EPA received comment that another company continues to use a refrigerant blend containing HCFC–22 in a medical equipment device that provides therapy for women suffering from menorrhagia (excessive bleeding) by reducing menstrual flow. While this equipment uses HCFC–22 in a refrigerant blend, it is not an ''appliance'' under the Clean Air Act. Under the section 601(1) definition of ''appliance,'' the device must be ''used for household or commercial purposes, including any air conditioner, refrigerator, chiller, or freezer.'' This device is used for medical purposes and does not provide comfort cooling or refrigeration. Beginning in 2010 it would be unlawful for the chemical producer to introduce the HCFC–22 into interstate commerce and for medical companies to use the HCFC–22 in their manufacture of medical equipment.

The two companies began transitioning from the blend containing HCFC–22 to pure ethylene oxide but they are currently two to four years away from fully implementing that alternative. Pure ethylene oxide, a SNAP-approved non-ozone-depleting compound, is explosive and must be used in specially designed and constructed facilities. Once the facilities are constructed, they must then be approved by the Food and Drug Administration (FDA) before they can begin manufacturing medical devices. Thus, while an alternative is approved for sterilant use, these two companies are still in the process of constructing and receiving approval for new facilities which would allow them to transition to that alternative.

EPA agrees with the commenter that the use of recovered and reclaimed HCFC–22 as a component of a sterilant is not a viable solution for sterilizing medical equipment. First, reclaimed HCFC–22 is purified according to Air-Conditioning, Heating, and Refrigeration Institute (AHRI) standards. The ARI Standard 700, among other things, requires that reclaimed HCFC–22 be 99.5% pure before being resold. This standard was designed to ensure that refrigeration equipment will work equally well regardless of whether the HCFC–22 is reclaimed or virgin. This standard does not consider medical uses of HCFC–22, where a 0.5% contamination level could have deleterious health effects. In addition, because reclaimed HCFC–22 is recovered from a variety of sources, the nature and the composition of the contaminants are varied and unknown. By contrast, commenters have told EPA that the contaminants in virgin HCFC–22 are constant and known because the source and production methods remain the same. Therefore, these contaminants have been screened for any medical effects and accounted for in the FDA approval of the sterilants for that medical use.

After the close of the comment period, EPA also heard from a manufacturer of medical equipment that contains HCFC–22 in a refrigerant blend and is used to ablate endometrial tissue. This company explained that it has taken significant steps to replace the HCFC–22 blend with an alternative refrigerant and was on schedule to have the replacement approved to be used in the medical device by the Underwriters Laboratory (UL) but the UL approval will not take place in 2009. This company requested a one-year exemption from the HCFC–22 use restriction, giving it enough time to complete the UL approval process.

EPA believes that an exception for the medical equipment described above is reasonable. First, such an exception is the type that was contemplated by Congress when writing the Clean Air Act. Section 605(d) authorizes EPA and FDA, in consultation, to allow the limited production and use of class II substances for medical devices after the statutory phaseout date of 2015. The existing regulation at 40 CFR 82.15(f) is reserved for a potential future exception for medical devices under Section 605(d). EPA is not invoking its authority under section 605(d) to create the exception for medical devices in this final rule because section 605(a) does not require a use phaseout until 2015. Nevertheless, EPA finds this exemption illustrative of the importance that Congress placed on medical uses. EPA is not inclined to create an exception for medical uses of HCFC–22 under section 605(d) when it issues allocations for the 2015–2019 control periods because EPA expects it will be practicable to implement alternatives by 2015. Based on the comments received in this rule, the few remaining users of HCFC–22 for medical purposes have plans in place to transition to alternatives prior to 2015.

Second, this exception will not have any adverse effects on the stratospheric ozone layer. EPA is limiting this exception to HCFC–22 that was produced under consumption allowances expended prior to January 1, 2010. The existing regulatory text in section 82.16(c) does not allow for HCFC–22 production beginning in 2010 for these sterilant uses and this use exemption would not change those provisions. Therefore, this exception will not result in additional production. EPA finally notes that the total volume of HCFC–22 needed for this use is small. The three companies estimate that only 57,000 kg of HCFC–22 will be needed between 2010 and the end of 2014.

IV. Statutory and Executive Order Reviews

A. Executive Order 12866: Regulatory Planning and Review

Under Executive Order (EO) 12866 (58 FR 51735, October 4, 1993), this action is a ''significant regulatory action.'' Accordingly, EPA submitted this action to the Office of Management and Budget (OMB) for review under EO 12866 and any changes made in response to OMB recommendations have been documented in the docket for this action.

EPA did not conduct a specific analysis of the benefits and costs associated with this action. Many previous analyses provide a wealth of information on the costs and benefits of the U.S. HCFC phaseout including:

• The 1993 *Addendum to the 1992 Phaseout Regulatory Impact Analysis: Accelerating the Phaseout of CFCs,*

Halons, Methyl Chloroform, Carbon Tetrachloride, and HCFCs.

- The 1999 Report *Costs and Benefits of the HCFC Allowance Allocation System.*
- The 2000 Memorandum *Cost/Benefit Comparison of the HCFC Allowance Allocation System.*
- The 2005 Memorandum *Recommended Scenarios for HCFC Phaseout Costs Estimation.*
- The 2006 ICR *Reporting and Recordkeeping Requirements of the HCFC Allowance System.*
- The 2007 Memorandum *Preliminary Estimates of the Incremental Cost of the HCFC Phaseout in Article 5 Countries.*
- The 2007 Memorandum *Revised Ozone and Climate Benefits Associated with the 2010 HCFC Production and Consumption Stepwise Reductions and a Ban on HCFC Pre-charged Imports.*

A memorandum summarizing these analyses is available in the docket.

B. Paperwork Reduction Act

This action does not impose any new information collection burden. EPA already requires recordkeeping and reporting requirements and through this action is not proposing to amend those provisions. However, the Office of Management and Budget (OMB) has previously approved the information collection requirements contained in the existing regulations at 40 CFR part 82 subpart A under the provisions of the Paperwork Reduction Act, 44 U.S.C. 3501 *et seq.* and has assigned OMB control number 2060–0498. The OMB control numbers for EPA's regulations in 40 CFR are listed in 40 CFR part 9.

C. Regulatory Flexibility Act (RFA)

The Regulatory Flexibility Act (RFA) generally requires an agency to prepare a regulatory flexibility analysis of any rule subject to notice and comment rulemaking requirements under the Administrative Procedure Act or any other statute unless the agency certifies that the rule will not have a significant economic impact on a substantial number of small entities. Small entities include small businesses, small organizations, and small governmental jurisdictions.

For purposes of assessing the impacts of this proposal on small entities, a small entity is defined as: (1) A small business as defined by the Small Business Administration's (SBA) regulations at 13 CFR 121.201; (2) a small governmental jurisdiction that is a government of a city, county, town, school district or special district with a population of less than 50,000; and (3) a small organization that is any not-for-profit enterprise which is independently owned and operated and is not dominant in its field.

This action will affect the following categories:

Category	NAICS code	SIC code	Examples of regulated entities
Industrial Gas Manufacturing	325120	2869	Fluorinated hydrocarbon gases manufacturers and reclaimers.
Other Chemical and Allied Products Merchant Wholesalers.	424690	5169	Chemical gases and compressed gases merchant wholesalers.
Air-Conditioning and Warm Air Heating Equipment and Commercial and Industrial Refrigeration Equipment Manufacturing.	333415	3585	Air-Conditioning Equipment and Commercial and Industrial Refrigeration Equipment manufacturers.
Air-Conditioning Equipment and Supplies Merchant Wholesalers.	423730	5075	Air-conditioning (condensing unit, compressors) merchant wholesalers.
Electrical and Electronic Appliance, Television, and Radio Set Merchant Wholesalers.	423620	5064	Air-conditioning (room units) merchant wholesalers.
Plumbing, Heating, and Air-Conditioning Contractors	238220	1711, 7623	Central air-conditioning system and commercial refrigeration installation; HVAC contractors.

After considering the economic impacts of the final rule on small entities, I certify that this action will not have a significant economic impact on a substantial number of small entities. EPA is not changing the methodology for the 2010–2014 control periods. Instead, EPA is continuing to allocate production and consumption allowances using the same approach currently used for control periods 2003–2009. Thus the 13 small businesses eligible for allowances for HCFC–22 and HCFC–142b identified in that rulemaking (68 FR 2845) are still eligible for allowances under this rule. In addition, small businesses eligible for HCFC–123, HCFC–124, HCFC–225ca, and HCFC–225cb allowance allocations using the same methodology, are eligible for allowances. EPA is not modifying the recordkeeping or reporting provisions and thus will not have any impact on the burden to these businesses.

While EPA does not believe this action has a significant economic impact on a substantial number of small entities, nonetheless, EPA continues to try to reduce further any impacts on small entities. With respect to the allowance allocation system as a whole, EPA is continuing to provide flexibility. Consistent with the methodology for establishing baselines for HCFC–141b, HCFC–22, and HCFC–142b, while small entities will be on the same footing as larger entities, EPA is again using the highest year of consumption. EPA is also limiting consideration of company-specific baseline adjustments to reflect only permanent inter-company transfers made prior to June 16, 2008, to avoid skewing baselines to entities with ample resources or access to information. The ability to transfer allowances among entities provides the greatest flexibility for small entities to manage their allocation. As noted in the 2003 allocation rule (68 FR 2846), unlike with the class I substances, there is no restriction to limit inter-pollutant transfers to groups of substances. Both inter-pollutant and inter-company transfers of allowances are possible. A small entity can opt for short-term or long term decisions concerning the allowances it holds after evaluating its place in the overall market.

EPA has also tried to reduce the impact to small businesses from the section 605(a) provisions restricting the introduction into interstate commerce and use of HCFC–22 and HCFC–142b. Commenters expressed concern that under EPA's interpretation of the term ''manufactured,'' components that are still in inventory on January 1, 2010, would be stranded. In this final rule, EPA is clarifying that distributors and contractors, typically small businesses, may continue to sell such equipment in order to service existing equipment that uses HCFC–22. Such servicing includes the replacement of whole condensing units, compressors, or line sets. While the proposed rule prohibited the manufacture of new appliances containing HCFC–22, HCFC–142b, or blends thereof, EPA is providing a limited exception in this final rule to

allow for continued manufacture of such appliances between January 1, 2010, and December 31, 2011, if the components are made prior to January 1, 2010, and specified for use at that project under a building permit or contract dated before January 1, 2010. Finally, EPA is clarifying that new appliances may continue to be manufactured from dry components if the competed appliance is charged with recovered, recycled, or reclaimed refrigerant. EPA believes these three options will provide relief to the various concerns that were expressed by stakeholders.

D. Unfunded Mandates Reform Act

This action contains no Federal mandates under the provisions of Title II of the Unfunded Mandates Reform Act of 1995 (UMRA), 2 U.S.C. 1531–1538 for State, local, or tribal governments or the private sector. First, UMRA does not apply to rules that are necessary for the implementation of international treaty obligations. This rule implements the 2010 milestone for the phaseout of HCFCs under the Montreal Protocol. The requirements already established at 40 CFR part 82 subpart A already govern the production, import, and export of ODS. The regulatory changes for the next major milestone in the phaseout continue to implement the same general framework previously established. This action will not have any significant direct impacts or State, local and tribal governments or private sector entities. Therefore, this rule is not subject to the requirements of sections 202 or 205 of UMRA.

This rule is also not subject to the requirements of section 203 of UMRA because it contains no regulatory requirements that might significantly or uniquely affect small governments. This action apportions production and consumption allowances and establishes baselines for private entities, not small governments.

E. Executive Order 13132: Federalism

Executive Order 13132, titled ''Federalism'' (64 FR 43255, August 10, 1999), requires EPA to develop an accountable process to ensure ''meaningful and timely input by State and local officials in the development of regulatory policies that have federalism implications.'' ''Policies that have federalism implications'' is defined in the Executive Order to include regulations that 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.''

This action does not have federalism implications. It does 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, as specified in Executive Order 13132. This action is expected to primarily affect producers, importers, and exporters of HCFCs. Thus, the requirements of section 6 of the Executive Order do not apply. In the spirit of Executive Order 13132, and consistent with EPA policy to promote communications between EPA and State and local governments, EPA specifically solicited comment on this action from State and local officials.

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

This action does not have tribal implications, as specified in Executive Order 13175 (65 FR 67249, November 9, 2000). This action not significantly or uniquely affect the communities of Indian tribal governments. It does not impose any enforceable duties on communities of Indian tribal governments. Thus, Executive Order 13175 does not apply to this action.

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

This action is not subject to EO 13045 (62 FR 19885, April 23, 1997) because it is not economically significant as defined in EO 12866. The Agency nonetheless has reason to believe that the environmental health or safety risk addressed by this action may have a disproportionate effect on children. Depletion of stratospheric ozone results in greater transmission of the sun's ultraviolet (UV) radiation to the earth's surface. The following studies describe the effects of excessive exposure to UV radiation on children: (1) Westerdahl J, Olsson H, Ingvar C. ''At what age do sunburn episodes play a crucial role for the development of malignant melanoma,'' Eur J Cancer 1994; 30A:1647–54; (2) Elwood JM, Japson J. ''Melanoma and sun exposure: an overview of published studies,'' Int J Cancer 1997; 73:198–203; (3) Armstrong BK, ''Melanoma: childhood or lifelong sun exposure,'' In: Grobb JJ, Stern RS, Mackie RM, Weinstock WA, eds. ''Epidemiology, causes and prevention of skin diseases,'' 1st ed. London, England: Blackwell Science, 1997; 63–6; (4) Whieman D, Green A. ''Melanoma and Sunburn,'' Cancer Causes Control, 1994; 5:564–72; (5) Heenan PJ. ''Does intermittent sun exposure cause basal cell carcinoma? A case control study in Western Australia,'' Int J Cancer 1995; 60:489–94; (6) Gallagher RP, Hill GB, Bajdik CD, et. al. ''Sunlight exposure, pigmentary factors, and risk of nonmelanocytic skin cancer I, Basal cell carcinoma.'' Arch Dermatol 1995; 131:157–63; (7) Armstrong DK. ''How sun exposure causes skin cancer: an epidemiological perspective,'' Prevention of Skin Cancer. 2004. 89–116.

This action reduces the potential continued use of Class II controlled substances and the emissions of such substances. It implements the United States commitment to reduce the total basket of HCFCs produced and imported to a level that is 75 percent below the respective baselines. While on an ODP-weighted basis, this is not as large a step as previous actions, such as the 1996 Class I phaseout, it is one of the most significant remaining actions the United States can take to complete the overall phaseout of ODS and further decrease impacts on children's health from stratospheric ozone depletion.

H. Executive Order 13211: Actions That Significantly Affect Energy Supply, Distribution, or Use

This action is not a ''significant energy action'' as defined in Executive Order 13211 (66 FR 28355 (May 22, 2001)), because it is not likely to have a significant adverse effect on the supply, distribution, or use of energy. The regulation issues allowances for the production and consumption of HCFCs, and prohibits the introduction into interstate commerce or use of products containing HCFCs.

I. National Technology Transfer and Advancement Act

Section 12(d) of the National Technology Transfer and Advancement Act of 1995 (''NTTAA''), Public Law 104–113, 12(d) (15 U.S.C. 272 note) directs EPA to use voluntary consensus standards in its regulatory activities unless to do so would be inconsistent with applicable law or otherwise impractical. Voluntary consensus standards are technical standards (*e.g.,* materials specifications, test methods, sampling procedures, and business practices) that are developed or adopted by voluntary consensus standards bodies. The NTTAA directs EPA to provide Congress, through OMB, explanations when the Agency decides not to use available and applicable voluntary consensus standards. This action does not involve technical standards. Therefore, EPA did not

consider the use of any voluntary consensus standards.

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

Executive Order (EO) 12898 (59 FR 7629 (Feb. 16, 1994)) establishes federal executive policy on environmental justice. Its 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 minority populations and low-income populations in the United States.

EPA has determined that this action will not have disproportionately high and adverse human health or environmental effects on minority or low-income populations because it increases the level of environmental protection for all affected populations without having any disproportionately high and adverse human health or environmental effects on any population, including any minority or low-income population. By allocating allowances for HCFCs and thus restricting the amount of HCFCs available as of January 1, 2010, this rule avoids emissions of these ozone-depleting substances, lessening the adverse human health effects for the entire population.

K. The Congressional Review Act

The Congressional Review Act, 5 U.S.C. 801 *et seq.,* as added by the Small Business Regulatory Enforcement Fairness Act of 1996, generally provides that before a rule may take effect, the agency promulgating the rule must submit a rule report, which includes a copy of the rule, to each House of the Congress and to the Comptroller General of the United States. EPA will submit a report containing this rule and other required information to the U.S. Senate, the U.S. House of Representatives, and the Comptroller General of the United States prior to publication of the rule in the **Federal Register**. A Major rule cannot take effect until 60 days after it is published in the **Federal Register**. This action is not a ''major rule'' as defined by 5 U.S.C. 804(2). This rule will be effective January 1, 2010.

List of Subjects in 40 CFR Part 82

Environmental protection, Administrative practice and procedure, Air pollution control, Chemicals, Chlorofluorocarbons, Exports, Hydrochlorofluorocarbons, Imports, Reporting and recordkeeping requirements.

Dated: December 7, 2009.

Lisa P. Jackson,

Administrator.

■ 40 CFR part 82 is amended as follows:

PART 82—PROTECTION OF STRATOSPHERIC OZONE

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

Authority: 42 U.S.C. 7414, 7601, 7671–7671(q)

Subpart A—Production and Consumption Controls

■ 2. Amend § 82.3 by adding in alphabetical order the definition of ''Appliance'', ''Interstate commerce'', and ''Manufactured'' to read as follows:

§ 82.3 Definitions for class I and class II controlled substances.

* * * * *

Appliance means any device which contains and uses a refrigerant and which is used for household or commercial purposes, including any air conditioner, refrigerator, chiller, or freezer.

* * * * *

Interstate commerce means the distribution or transportation of any controlled substance between one state, territory, possession or the District of Columbia, and another state, territory, possession or the District of Columbia, or the sale, use or manufacture of any controlled substance in more than one state, territory, possession or District of Columbia. The entry points for which a controlled substance is introduced into interstate commerce are the release of a controlled substance from the facility in which the controlled substance was manufactured, the entry into a warehouse from which the domestic manufacturer releases the controlled substance for sale or distribution, and at the site of United States customs clearance.

* * * * *

Manufactured, for an appliance, means the date upon which the appliance's refrigerant circuit is complete, the appliance can function, the appliance holds a full refrigerant charge, and the appliance is ready for use for its intended purposes; and for a pre-charged appliance component, means the date that such component is completely produced by the original equipment manufacture, charged with refrigerant, and is ready for initial sale or distribution in interstate commerce.

* * * * *

■ 3. Amend § 82.15 by revising paragraph (c) and adding paragraph (g) to read as follows:

§ 82.15 Prohibitions for class II controlled substances.

* * * * *

(c) *Production with Article 5 allowances.* No person may introduce into U.S. interstate commerce any class II controlled substance produced with Article 5 allowances, except for export to an Article 5 Party as listed in Annex 4 of Appendix C of this subpart. Every kilogram of a class II controlled substance produced with Article 5 allowances that is introduced into interstate commerce other than for export to an Article 5 Party constitutes a separate violation under this subpart. No person may export any class II controlled substance produced with Article 5 allowances to a non-Article 5 Party. Every kilogram of a class II controlled substance that was produced with Article 5 allowances that is exported to a non-Article 5 Party constitutes a separate violation under this subpart.

* * * * *

(g) *Introduction into interstate commerce or use.* (1) Effective January 1, 2010, no person may introduce into interstate commerce or use HCFC–141b (unless used, recovered, and recycled) for any purpose except for use in a process resulting in its transformation or its destruction; for export to Article 5 Parties under § 82.18(a); for HCFC–141b exemption needs; as a transhipment or heel; or for exemptions permitted in paragraph (f) of this section.

(2)(i) Effective January 1, 2010, no person may introduce into interstate commerce or use HCFC–22 or HCFC–142b (unless used, recovered, and recycled) for any purpose other than for use in a process resulting in its transformation or its destruction; for use as a refrigerant in equipment manufactured before January 1, 2010; for export to Article 5 Parties under § 82.18(a); as a transhipment or heel; or for exemptions permitted in paragraph (f) of this section.

(ii) Introduction into interstate commerce and use of HCFC–22 is not subject to the prohibitions in paragraph (g)(2)(i) of this section if the HCFC–22 is for use in medical equipment prior to January 1, 2015; for use in thermostatic expansion valves prior to January 1, 2015; or for use as a refrigerant in appliances manufactured before January 1, 2012, provided that the components are manufactured prior to January 1, 2010, and are specified in a building permit or a contract dated before

January 1, 2010, for use on a particular project.

(3) Effective January 1, 2015, no person may introduce into interstate commerce or use HCFC–141b (unless used, recovered, and recycled) for any purpose other than for use in a process resulting in its transformation or its destruction; for export to Article 5 Parties under § 82.18(a), as a transhipment or heel; or for exemptions permitted in paragraph (f) of this section.

(4) Effective January 1, 2015, no person may introduce into interstate commerce or use any class II controlled substance not governed by paragraphs (g)(1) through (3) of this section (unless used, recovered, and recycled) for any purpose other than for use in a process resulting in its transformation or its destruction; for use as a refrigerant in equipment manufactured before January 1, 2020; for export to Article 5 Parties under § 82.18(a); as a transhipment or heel; or for exemptions permitted in paragraph (f) of this section.

(5) Effective January 1, 2030, no person may introduce into interstate commerce or use any class II controlled substance (unless used, recovered, and recycled) for any purpose other than for use in a process resulting in its transformation or its destruction; for export to Article 5 Parties under § 82.18(a); as a transhipment or heel; or for exemptions permitted in paragraph (f) of this section.

(6) Effective January 1, 2040, no person may introduce into interstate commerce or use any class II controlled substance (unless used, recovered, and recycled) for any purpose other than for use in a process resulting in its transformation or its destruction, as a transhipment or heel, or for exemptions permitted in paragraph (f) of this section.

* * * * *

■ 4. Revise § 82.16(a) to read as follows:

§ 82.16 Phaseout schedule of class II controlled substances.

(a) In each control period as indicated in the following table, each person is granted the specified percentage of baseline production allowances and baseline consumption allowances for the specified class II controlled substances apportioned under §§ 82.17 and 82.19:

Control period	Percent of HCFC–141b	Percent of HCFC–22	Percent of HCFC–142b	Percent of HCFC–123	Percent of HCFC–124	Percent of HCFC–225ca	Percent of HCFC–225cb
2003	0	100	100				
2004	0	100	100				
2005	0	100	100				
2006	0	100	100				
2007	0	100	100				
2008	0	100	100				
2009	0	100	100				
2010	0	41.9	0.47	125	125	125	125
2011	0	38.0	0.47	125	125	125	125
2012	0	34.1	0.47	125	125	125	125
2013	0	30.1	0.47	125	125	125	125
2014	0	26.1	0.47	125	125	125	125

* * * * *

■ 5. Revise § 82.17 to read as follows:

§ 82.17 Apportionment of baseline production allowances for class II controlled substances.

Effective January 1, 2010, the following persons are apportioned baseline production allowances for HCFC–22, HCFC–141b, HCFC–142b, HCFC–123, HCFC–124, HCFC–225ca, and HCFC–225cb, as set forth in the following table:

Person	Controlled substance	Allowances (kg)
AGC Chemicals Americas	HCFC–225ca	266,608
	HCFC–225cb	373,952
Arkema	HCFC–22	28,219,223
	HCFC–141b	24,647,925
	HCFC–142b	16,131,096
DuPont	HCFC–22	42,638,049
	HCFC–124	2,269,210
Honeywell	HCFC–22	37,378,252
	HCFC–141b	28,705,200
	HCFC–142b	2,417,534
	HCFC–124	1,759,681
MDA Manufacturing	HCFC–22	2,383,835
Solvay Solexis	HCFC–142b	6,541,764

■ 6. Amend § 82.18 by revising paragraphs (a) and (b) to read as follows:

§ 82.18 Availability of production in addition to baseline production allowances for class II controlled substances.

(a) *Article 5 allowances.* (1) Effective January 1, 2003, a person apportioned baseline production allowances for HCFC–141b, HCFC–22, or HCFC–142b under § 82.17 is also apportioned Article 5 allowances, equal to 15 percent of their baseline production allowances, for the specified HCFC for each control period up until December 31, 2009, to be used for the production of the specified HCFC for export only to foreign states listed in Annex 4 of Appendix C to this subpart.

(2) Effective January 1, 2010, a person apportioned baseline production allowances under § 82.17 for HCFC–141b, HCFC–22, or HCFC–142b is also apportioned Article 5 allowances, equal to 10 percent of their baseline production allowances, for the specified

HCFC for each control period up until December 31, 2019, to be used for the production of the specified HCFC for export only to foreign states listed in Annex 4 of Appendix C to this subpart.

(3) Effective January 1, 2015, a person apportioned baseline production allowances under § 82.17 for HCFC–123, HCFC–124, HCFC–225ca, and HCFC–225cb is also apportioned Article 5 allowances, equal to 10 percent of their baseline production allowances, for the specified HCFC for each control period up until December 31, 2019, to be used for the production of the specified HCFC for export only to foreign states listed in Annex 4 of Appendix C to this subpart.

(b) *Export Production Allowances.* (1) Effective January 1, 2003, a person apportioned baseline production allowances for HCFC–141b under § 82.17 is also apportioned export production allowances, equal to 100 percent of their baseline production allowances, for HCFC–141b for each control period up until December 31, 2009, to be used for the production of HCFC–141b for export only, in accordance with this section.

(2) [Reserved]

* * * * *

■ 7. Section 82.19 is revised to read as follows:

§ 82.19 Apportionment of baseline consumption allowances for class II controlled substances.

Effective January 1, 2010, the following persons are apportioned baseline consumption allowances for HCFC–22, HCFC–141b, HCFC–142b, HCFC–123, HCFC–124, HCFC–225ca, and HCFC–225cb, as set forth in the following table:

Person	Controlled substance	Allowances (kg)
ABCO Refrigeration Supply	HCFC–22	279,366
AGC Chemicals Americas	HCFC–225ca	285,328
	HCFC–225cb	286,832
Altair Partners	HCFC–22	302,011
Arkema	HCFC–22	29,524,481
	HCFC–141b	25,405,570
	HCFC–142b	16,672,675
	HCFC–124	3,719
Carrier	HCFC–22	54,088
Condor Products	HCFC–22	74,843
	HCFC–124	3,746
Continental Industrial Group	HCFC–141b	20,315
Coolgas, Inc	HCFC–141b	16,097,869
	HCFC–123	20,000
Coolgas Investment Property	HCFC–22	590,737
Discount Refrigerants	HCFC–22	375,328
	HCFC–141b	994
DuPont	HCFC–22	38,814,862
	HCFC–141b	9,049
	HCFC–142b	52,797
	HCFC–123	1,877,042
	HCFC–124	743,312
H.G. Refrigeration Supply	HCFC–22	40,068
Honeywell	HCFC–22	35,392,492
	HCFC–141b	20,749,489
	HCFC–142b	1,315,819
	HCFC–124	1,284,265
ICC Chemical Corp	HCFC–141b	81,225
ICOR	HCFC–124	81,220
Ineos Fluor Americas	HCFC–22	2,546,305
Kivlan & Company	HCFC–22	2,081,018
MDA Manufacturing	HCFC–22	2,541,545
Mondy Global	HCFC–22	281,824
National Refrigerants	HCFC–22	5,528,316
	HCFC–123	72,600
	HCFC–124	50,380
Perfect Technology Center, LP	HCFC–123	9,100
Refricenter of Miami	HCFC–22	381,293
Refricentro	HCFC–22	45,979
R-Lines	HCFC–22	63,172
Saez Distributors	HCFC–22	37,936
Solvay Fluorides	HCFC–22	413,509
	HCFC–141b	3,940,115
Solvay Solexis	HCFC–142b	3,047,386
Tulstar Products	HCFC–141b	89,913
	HCFC–123	34,800
	HCFC–124	229,582
USA Refrigerants	HCFC–22	14,865

■ 8. Revise Annex 4 to Appendix C of subpart A of part 82 to read as follows:

Appendix C to Subpart A of Part 82—Parties to the Montreal Protocol, and Nations Complying With, But Not Parties to, the Protocol

* * * * *

Annex 4 to Appendix C of Subpart A: Nations That Are Parties to the Montreal Protocol and Are Operating Under Article 5(1)

List of Article 5 Parties

1. Afghanistan
2. Albania
3. Algeria
4. Angola
5. Antigua & Barbuda
6. Argentina
7. Armenia
8. Bahamas
9. Bahrain
10. Bangladesh
11. Barbados
12. Belize
13. Benin
14. Bhutan
15. Bolivia
16. Bosnia and Herzegovina
17. Botswana
18. Brazil
19. Brunei Darussalam
20. Burkina Faso
21. Burundi
22. Cambodia
23. Cameroon
24. Cape Verde
25. Central African Republic
26. Chad
27. Chile
28. China
29. Colombia
30. Comoros
31. Congo
32. Congo, Democratic Republic of
33. Cook Islands
34. Cost Rica
35. Côte d'Ivoire
36. Croatia
37. Cuba
38. Djibouti
39. Dominica
40. Dominican Republic
41. Ecuador
42. Egypt
43. El Salvador
44. Equatorial Guinea
45. Eritrea
46. Ethiopia
47. Fiji
48. Gabon
49. Gambia
50. Georgia
51. Ghana
52. Grenada
53. Guatemala
54. Guinea
55. Guinea Bissau
56. Guyana
57. Haiti
58. Honduras
59. India
60. Indonesia
61. Iran, Islamic Republic of
62. Iraq
63. Jamaica
64. Jordan
65. Kenya
66. Kiribati
67. Korea, People's Democratic Republic of
68. Korea, Republic of
69. Kuwait
70. Kyrgyzstan
71. Lao People's Democratic Republic
72. Lebanon
73. Lesotho
74. Liberia
75. Libyan Arab Jamahiriya
76. Madagascar
77. Malawi
78. Malaysia
79. Maldives
80. Mali
81. Marshall Islands
82. Mauritania
83. Mauritius
84. Mexico
85. Micronesia, Federal States of
86. Moldova
87. Mongolia
88. Montenegro
89. Morocco
90. Mozambique
91. Myanmar
92. Namibia
93. Nauru
94. Nepal
95. Nicaragua
96. Niger
97. Nigeria
98. Niue
99. Oman
100. Pakistan
101. Palau
102. Panama
103. Papua New Guinea
104. Paraguay
105. Peru
106. Philippines
107. Qatar
108. Rwanda
109. Saint Kitts and Nevis
110. Saint Lucia
111. Saint Vincent & the Grenadines
112. Samoa
113. Sao Tome and Principe
114. Saudi Arabia
115. Senegal
116. Serbia
117. Seychelles
118. Sierra Leone
119. Singapore
120. Solomon Islands
121. Somalia
122. South Africa
123. Sri Lanka
124. Sudan
125. Suriname
126. Swaziland
127. Syrian Arab Republic
128. Tanzania, United Republic of
129. Thailand
130. The Former Yugoslav Republic of Macedonia
131. Timor-Leste
132. Togo
133. Tonga
134. Trinidad and Tobago
135. Tunisia
136. Turkey
137. Turkmenistan
138. Tuvalu
139. Uganda
140. United Arab Emirates
141. Uruguay
142. Vanuatu
143. Venezuela
144. Viet Nam
145. Yemen
146. Zambia
147. Zimbabwe

■ 9. Revise Appendix E to subpart A of part 82 to read as follows:

Appendix E to Subpart A of Part 82—Article 5 Parties

Afghanistan, Albania, Algeria, Angola, Antigua & Barbuda, Argentina, Armenia, Bahamas, Bahrain, Bangladesh, Barbados, Belize, Benin, Bhutan, Bolivia, Bosnia and Herzegovina, Botswana, Brazil, Brunei Darussalam, Burkina Faso, Burundi, Cambodia, Cameroon, Cape Verde, Central African Republic, Chad, Chile, China, Colombia, Comoros, Congo, Congo, Democratic Republic of, Cook Islands, Cost Rica, Côte d'Ivoire, Croatia, Cuba, Djibouti, Dominica, Dominican Republic, Ecuador, Egypt, El Salvador, Equatorial Guinea, Eritrea, Ethiopia, Fiji, Gabon, Gambia, Georgia, Ghana, Grenada, Guatemala, Guinea, Guinea Bissau, Guyana, Haiti, Honduras, India, Indonesia, Iran, Islamic Republic of, Iraq, Jamaica, Jordan, Kenya, Kiribati, Korea, People's Democratic Republic of, Korea, Republic of, Kuwait, Kyrgyzstan, Lao People's Democratic Republic, Lebanon, Lesotho, Liberia, Libyan Arab Jamahiriya, Madagascar, Malawi, Malaysia, Maldives, Mali, Marshall Islands, Mauritania, Mauritius, Mexico, Micronesia, Federal States of, Moldova, Mongolia, Montenegro, Morocco, Mozambique, Myanmar, Namibia, Nauru, Nepal, Nicaragua, Niger, Nigeria, Niue, Oman, Pakistan, Palau, Panama, Papua New Guinea, Paraguay, Peru, Philippines, Qatar, Rwanda, Saint Kitts and Nevis, Saint Lucia, Saint Vincent & the Grenadines, Samoa, Sao Tome and Principe, Saudi Arabia, Senegal, Serbia, Seychelles, Sierra Leone, Singapore, Solomon Islands, Somalia, South Africa, Sri Lanka, Sudan, Suriname, Swaziland, Syrian Arab Republic, Tanzania, United Republic of, Thailand, The Former Yugoslav Republic of Macedonia, Timor-Leste, Togo, Tonga, Trinidad and Tobago, Tunisia, Turkey, Turkmenistan, Tuvalu, Uganda, United Arab Emirates, Uruguay, Vanuatu, Venezuela, Viet Nam, Yemen, Zambia, Zimbabwe.

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