Dated: May 7, 2013.
A. Stanley Meiburg,
Acting Regional Administrator, Region 4.
40 CFR part 52, is amended as follows:

PART 52—[AMENDED]

1. The authority citation for part 52 continues to read as follows:
   Authority: 42 U.S.C. 7401 et seq.

Subpart RR—Tennessee

2. In §52.2220, table 1 in paragraph (c) is amended by revising the entry in Table 1 for “Section 1200–3–9.01” to read as follows:

§52.2220 Identification of plan.

(c) * * * *

TABLE 1—EPA APPROVED TENNESSEE REGULATIONS

<table>
<thead>
<tr>
<th>State citation</th>
<th>Title/subject</th>
<th>State effective date</th>
<th>EPA approval date</th>
<th>Explanation</th>
</tr>
</thead>
</table>

On 5/17/2013 EPA revised this section to add 17 compounds to the list of compounds excluded from the definition of VOC that was state effective on 9/3/1999. EPA is approving Tennessee’s July 29, 2011, SIP revisions to Chapter 1200–3–9–01 with the exception of the term “particulate matter emissions” at 1200–03–09–01(4)(b)(47)(vi) as part of the definition for “regulated NSR pollutant” regarding the inclusion of condensable emissions in applicability determinations and in establishing emissions limitations. EPA approved Tennessee’s May 28, 2009 SIP revisions to Chapter 1200–3–9–01 with the exception of the “baseline actual emissions” calculation revision found at 1200–3–9–01 (4)(b)45(i)(III), (4)(b)45(ii)(IV), (5)(b)1(xvi)(i)(III) and (5)(b)1(xvi)(i)(IV) of the submittal.
I. Listing of New Acceptable Substitutes

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Appendix A—Summary of Decisions for New Acceptable Substitutes

I. Listing of New Acceptable Substitutes

This section presents EPA’s most recent acceptable listing decisions for substitutes in the refrigeration and air conditioning; foam blowing; solvent cleaning; adhesives, coatings and inks; and fire suppression sectors. For copies of the full list of substitutes in all of the regulated industrial sectors, visit EPA’s Ozone Layer Protection Web site at http://www.epa.gov/ozone/snap/lists/index.html.

The sections below discuss each substitute listing in detail. Appendix A contains a table summarizing today’s listing decisions for new substitutes. The statements in the “Further Information” column in the table provide additional information but are not legally binding under section 612 of the Clean Air Act (CAA). In addition, the “further information” may not be a comprehensive list of other legal obligations you may need to meet when using the substitute. Although you are not required to follow recommendations in the “further information” column of the table to use a substitute consistent with section 612 of the CAA, EPA strongly encourages you to apply the information when using these substitutes. In many instances, the information simply refers to standard operating practices in existing industry and/or building-code standards. However, some of these statements may refer to obligations that are enforceable or binding under federal or state laws or regulations (see 40 CFR 82.154(a)).

II. Section 612 Program

A. Refrigeration and Air Conditioning

1. R–442A (RS–50)

EPA’s decision: EPA finds R–442A acceptable as a substitute for use in retrofit equipment in:

- Ice skating rinks
- Commercial ice machines
- Retail food refrigeration (rack refrigeration systems only)

R–442A is a blend by weight of 31.1 percent hydrofluorocarbon (HFC)-125, which is also known as 1,1,1,2,2-pentanefluorohthane (Chemical Abstracts Service Registry Number [CAS Reg. No.] 354–33–6), 30.0 percent HFC–134a, which is also known as 1,1,1,2-tetrafluoroethane (CAS Reg. No. 811–97–2), 3.0 percent R–152a, which is also known as 1,1,1,2-difluoroethane (CAS Reg. No. 75–37–6)], 5.0 percent HFC–227ea, which is also known as 1,1,1,2,3,3,3-heptafluoropropane (CAS Reg. No. 431–89–0), and 31.1 percent HFC–32, which is also known as difluoromethane (CAS Reg. No. 75–10–5). You may find the submission under Docket item EPA–HQ–OAR–2003–0118–0286 at http://www.regulations.gov.

Environmental information: R–442A has no ozone depletion potential (ODP). Its components (HFC–134a, HFC–125, HFC–227ea, HFC–32 and HFC–152a) have 100-year integrated (100-yr) global warming potentials (GWP) of 1430.1, 3500, 3220, 675 and 124 respectively. If these values are weighted by the mass percentage of the components, then R–442A has a GWP of about 1890. All components of R–442A are exempt from the definition of volatile organic compounds (VOC) under CAA regulations (see 40 CFR 51.100(s)) addressing the development of State Implementation Plans (SIPs) to attain and maintain the national ambient air quality standards. The emissions of this refrigerant will be limited given it is subject to the venting prohibition under section 608(c)(2) of the CAA and EPA’s implementing regulations codified at 40 CFR 82.154(a)(1).

Flammability information: While some components are flammable, R–442A as formulated and in the worst-case fractionation formulation is not flammable.

Toxicity and exposure data: Potential health effects of this substitute include drowsiness, incoordination or dizziness. The substitute may also irritate the skin or eyes or cause frostbite. At sufficiently high concentrations, the substitute may cause irregular heartbeat. The substitute could cause asphyxiation if air is displaced by vapors in a confined space. These potential health effects are common to many refrigerants.

EPA anticipates that R–442A will be used consistent with the recommendations specified in the Material Safety Data Sheets (MSDSs) for the blend and for the individual components. For the blend, the manufacturer recommends an acceptable exposure limit (AEL) of 1000 ppm on an 8-hour time-weighted average (8-hr TWA). For HFC–134a, HFC–125, HFC–32 and HFC–152a, the American Industrial Hygiene Association (AIHA) recommends workplace environmental exposure limits (WEELs) of 1000 ppm on an 8-hr TWA. In addition, the manufacturer of HFC–227ea recommends an AEL of 1000 ppm on an 8-hr TWA. EPA anticipates that users will be able to meet workplace exposure limits (WEELs and manufacturer AELs) and address potential health risks by following

requirements and recommendations in the MSDS and other safety precautions common to the refrigeration and air conditioning industry.

Comparison to other refrigerants: R–442A is not ozone-depleting, comparable to a number of other acceptable non-ozone-depleting substitutes for these end uses such as HFC–134a, R–410A, and R–404A. R–442A’s lack of ozone depletion potential is in contrast to some other substitutes, such as R–401A, R–414A and other blends containing HCFC–22 or HCFC–142b with ODPs ranging from about 0.01 to about 0.047, and HCFC–22 (with an ODP of 0.04+), an ozone-depleting substance which it replaces. R–442A’s GWP of about 1890 is lower than or comparable to that of a number of other substitutes in the same refrigeration and air conditioning end uses for which we are finding it acceptable. For example, the GWP for R–442A is lower than that of R–404A with a GWP of 3930 and comparable to that of R–410A with a GWP of 2100. R–442A’s GWP is, however, higher than that of HFC–134a with a GWP of 1430. The GWP of R–442A is also comparable to those of ozone-depleting substances it is replacing, such as HCFC–22 with a GWP of 1810. Flammability and toxicity risks are low, as discussed above, if used in accordance with the MSDSs. EPA finds R–442A acceptable for retrofit equipment in the end uses listed above because the overall environmental and human health risk posed by R–442A is lower than or comparable to the risks posed by other substitutes found acceptable in the same end uses for retrofit equipment.

B. Foam Blowing


EPA’s decision: EPA finds commercial blends of HFC–365mfc and HFC–227ea acceptable as substitutes in:
- Extruded polystyrene, boardstock and billet
- Rigid polyurethane spray
- Rigid polyurethane foam

HFC–365mfc is also known as 1,1,3,3,3-pentafluoropropane (CAS Reg. No. 138495–42–8), and HFC–227ea is also known as 1,1,2,3,3,3-heptafluoropropene (CAS Reg. No. 431–89–0). The manufacturer produces two commercial blends for foam blowing, one containing 93% HFC–365mfc and 7% HFC–227ea and the other containing 87% HFC–365mfc and 13% HFC–227ea, and these are marketed under the trade name Solkane® 365/227. You may find the submission under Docket item EPA–HQ–OAR–2003–0118–0278 at http://www.regulations.gov. EPA previously listed HFC–365mfc as an acceptable substitute for a number of foam blowing end uses (September 30, 2009; 74 FR 50129).

Environmental information: Blends of HFC–365mfc and HFC–227ea have no ODP. HFC–365mfc and HFC–227ea have 100-yr GWPs of 794 and 3220 respectively. The commercial blends of these components, if weighted by mass percentage, have GWPs of roughly 900 to 1100. Both HFC–365mfc and HFC–227ea are exempt from the definition of VOC under CAA regulations (see 40 CFR 51.100(s)) addressing the development of SIPs to attain and maintain the national ambient air quality standards.

Flammability information: By itself, HFC–365mfc is flammable. The commercial blends of HFC–365mfc and HFC–227ea are not flammable as formulated. However, care should be taken to follow all precautions in the MSDS and any guidance from the manufacturer, in cases where the non-flammable commercial blends HFC–227ea may evaporate before the flammable component HFC–365mfc evaporates, especially with open containers of blowing agent or polyol premix.

Toxicity and exposure data: Potential health effects of this substitute include drowsiness or dizziness. The substitute may also irritate the skin or eyes or cause frostbite. At sufficiently high concentrations, the substitute may cause irregular heartbeat, unconsciousness or death. The substitute could cause asphyxiation if air is displaced by vapors in a confined space. These potential health effects are common to many foam blowing agents.

EPA anticipates that commercial blends of HFC–365mfc and HFC–227ea will be used consistent with the recommendations specified in the MSDSs for the blend and for the individual components. For HFC–365mfc, HFC–227ea and for the blends, the manufacturer recommends an AEL of 1000 ppm on an 8-hr TWA. EPA anticipates that users will be able to meet the manufacturer’s AELs and address potential health risks by following requirements and recommendations in the MSDS and other safety precautions common in the foam blowing industry.

Comparison to other foam blowing agents: Commercial blends of HFC–365mfc and HFC–227ea are non-ozone-depleting, comparable to a number of other acceptable non-ozone-depleting substitutes for these end uses, such as HFC–245fa, ecomate® and CO₂. Commercial blends of HFC–365mfc and HFC–227ea have no ODP, compared to the acceptable substitute trans-1-chloro-3,3,3-trifluoroprop-1-ene with an ODP of approximately 0.00024 to 0.00034. The blends’ lack of ODP is in contrast to an ODP of 1.0 for CFC–11 and an ODP of 0.12 for HCFC–141b. Ozone depleting substances which they replace. The GWPs of the commercial blends of HFC–365mfc and HFC–227ea of 900 to 1100 are lower than or comparable to those of some other substitutes in these end uses such as HFC–134a with a GWP of 1430 and HFC–245fa with a GWP of 1030. The GWP of the non-flammable commercial blends of HFC–365mfc and HFC–227ea is higher than that for some other acceptable, but flammable, substitutes such as HFC–365mfc alone with a GWP of 794.

Exxsol Blowing Agents with a GWP less than 10 and ecomate™ with a GWP less than 5. The GWPs of the commercial blends of HFC–365mfc and HFC–227ea of 900 to 1100 are higher than those of HCFC–141b with a GWP of 725 and are lower than CFC–11’s GWP of 4750. Flammability and toxicity risks are low, as discussed above, if used in accordance with the MSDSs. We find that commercial blends of HFC–365mfc and HFC–227ea are acceptable because they do not pose a greater overall risk to public health and the environment than the other substitutes acceptable in the end uses listed above.

C. Solvent Cleaning

1. Trans-1-chloro-3,3,3-trifluoroprop-1-ene (Solstice™ 1233zd(E))

EPA’s decision: EPA finds trans-1-chloro-3,3,3-trifluoroprop-1-ene acceptable as a substitute in:

2 Under EPA’s phaseout regulations, virgin HCFC–22, HCFC–142b and blends containing HCFC–22 or HCFC–142b may only be used to service existing appliances. Consequently, virgin HCFC–22, HCFC–142b and blends containing HCFC–22 or HCFC–142b may not be used to manufacture new pre-charged appliances or appliances components or to charge new appliances assembled onsite.


5 HFC–365mfc alone is listed as acceptable in all foam blowing end uses with the exception of spray foam.
• Metals cleaning
• Electronics cleaning
• Precision cleaning

Trans-1-chloro-3,3,3-trifluoroprop-1-ene (E) -1-chloro-3,3,3-trifluoroprop-1-ene, CAS Reg. No. 102687–65–0 is marketed under the trade names Solstice™ 1233zd(E) and Solstice™ Performance Fluid. EPA previously listed trans-1-chloro-3,3,3-trifluoroprop-1-ene as an acceptable alternative for various CFCs and HCFCs in a number of sectors and end uses (August 10, 2012, 77 FR 47768). You may find the redacted submission under Docket item EPA–HQ–OAR–2003–0118–0285 (continuation of Air Docket A–91–42) at http://www.regulations.gov.

Environmental information:
Solstice™ 1233zd(E) is not regulated as an ODS but it has an ODP of 0.00024 to 0.00034. Estimates of emissions which assume that this compound would substitute for all compounds it could replace, the impact on global atmospheric ozone abundance would be statistically insignificant. Solstice™ 1233zd(E) has a 100-yr GWP reported as 4.7 to 7 and an atmospheric lifetime of approximately 26 days. EPA has issued a proposed rule that, if finalized as proposed, would exempt Solstice™ 1233zd(E) from the definition of VOC under CAA regulations (see 40 CFR 51.100(s)) addressing the development of SIPs to attain and maintain the national ambient air quality standards (February 15, 2013; 79 FR 11101, 11119).

Flammability information: Solstice™ 1233zd(E) is not flammable.

Toxicity and exposure data: Potential health effects of this substitute include serious eye irritation, skin irritation, or frostbite. It may cause central nervous system effects such as drowsiness and dizziness. It could cause asphyxiation if air is displaced by vapors in a confined space.

EPA anticipates that Solstice™ 1233zd(E) will be used consistent with the recommendations specified in the manufacturer’s MSDS. The manufacturer recommends an AEL of 300 ppm (8-hr TWA) for Solstice™ 1233zd(E). EPA also developed a short-term exposure limit (STEL) of 900 ppm over a 15-minute period, based on the submitter’s 300 ppm AEL value. EPA anticipates that users will be able to meet the recommended workplace exposure limits (manufacturer’s and EPA’s) and address potential health risks by following requirements and recommendations in the MSDS and other safety precautions commonly used in the solvent cleaning industry.

Comparison to other cleaning solvents: Solstice™ 1233zd(E) has an ODP of 0.00024 to 0.00034. This is higher than the ODP of a number of acceptable non-ozone-depleting substitutes in these end uses such as HFC-4310mee, HFE-7100, acetone, and aqueous cleaners. The ODP of Solstice™ 1233zd(E) is comparable to the ODPs of trans-1,2-dichloroethylene and trichloroethylene and an order of magnitude lower than the ODP of perchloroethylene, other substitutes in the solvent cleaning sector that are not regulated as ODS.

Solstice™ 1233zd(E)’s ODP is several orders of magnitude lower than that of ozone-depleting substances it replaces, including CFC-113, methyl chloroform, HFC-365mfc, HFC-225ca and HFC-225cb (ODPs ranging from 0.02 to 0.85). Solstice™ 1233zd(E)’s GWP of 4.7 to 7 is lower than that of other substitutes in the metals, precision and electronic cleaning end uses, such as HFC-4310mee with a GWP of 1640 and HFE-7100 with a GWP of 297. Solstice™ 1233zd(E), a non-flammable compound, has a GWP that is comparable to or slightly higher than that of some other acceptable, but flammable, substitutes such as trans-1,2-dichloroethylene with a GWP less than 10 and acetone with a GWP of less than 1. Its climate impacts cannot be compared directly to those of aqueous cleaners with no direct GWP. Furthermore, the GWP of Solstice™ 1233zd(E) is several orders of magnitude less than those of ozone-depleting substances it replaces, including methyl chloroform, CFC-113, HFC-225ca and HFC-225cb (GPWs ranging from 122 to 6,130). Flammability and toxicity risks are low, as discussed above, if used in accordance with the MSDS. The potential health effects of Solstice™ 1233zd(E) are common to many solvents, including many of those already listed as acceptable under SNAP. EPA finds trans-1-chloro-3,3,3-trifluoroprop-1-ene (Solstice™ 1233zd(E)) acceptable in the end uses listed above because the overall environmental and human health risk posed by Solstice™ 1233zd(E) is lower than or comparable to the risks posed by other substitutes found acceptable in the same end uses.

D. Adhesives, Coatings and Inks

1. Trans-1-chloro-3,3,3-trifluoroprop-1-ene (Solstice™ 1233zd(E))

EPA’s decision: EPA finds trans-1-chloro-3,3,3-trifluoroprop-1-ene as a substitute carrier solvent in:
• Adhesives
• Coatings


Environmental information: The environmental information for this substitute is set forth in the “Environmental information” section in listing C.1. above.

Flammability information: Solstice™ 1233zd(E) is not flammable.

Toxicity and exposure data: The toxicity information for this substitute is set forth in the “Toxicity and exposure data” section in listing C.1. above.

EPA anticipates that Solstice™ 1233zd(E) will be used consistent with the recommendations specified in the manufacturer’s MSDS. The manufacturer recommends an AEL of 300 ppm (8-hour TWA) for Solstice™ 1233zd(E). EPA also developed a STEL of 900 ppm over a 15-minute period, based on the submitter’s 300 ppm AEL value. EPA anticipates that users will be able to meet the recommended workplace exposure limits (manufacturer and EPA recommendations) and address potential health risks by following

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11 WMO, 2010. Section 1.3.6.2.
requirements and recommendations in the MSDS and other safety precautions common when using adhesives or coatings.

**Comparison to other carrier solvents in adhesives and coatings**:

Solstice™ 1233zd(E) has an ODP of 0.00024 to 0.00034. This is higher than the ODP of a number of substitutes in these end uses such as HFE-7100, aceton and ultraviolet-cured formulations and is comparable to the ODP of trans-1,2-dichloroethylene, another acceptable substitute in the adhesives and coatings end uses that is not regulated as an ODS. Solstice™ 1233zd(E)’s ODP is several orders of magnitude lower than those of ozone-depleting substances it replaces, including methyl chloroform and HCFC-141b (ODPs respectively of 0.16 and 0.012). Solstice™ 1233zd(E)’s GWP of 4.7 to 7 is lower than that of some substitutes in the adhesives and coatings end uses, such as HFE-7100 with a GWP of 297. Solstice™ 1233zd(E), a non-flammable compound, has a GWP that is comparable to or slightly higher than that of some other acceptable, but flammable, substitutes such as trans-dichloroethylene with a GWP less than 10 and aceton with a GWP of less than one. Its climate impacts cannot be compared directly to those of ultraviolet-cured formulations with no direct GWP. Furthermore, the GWP of Solstice™ 1233zd(E) is one to two orders of magnitude less than those of methyl chloroform and HCFC-141b, ozone-depleting substances in these end uses (GWPs ranging from 146 to 725). Flammability and toxicity risks are low, as discussed above, if used in accordance with the MSDS. The potential health effects of Solstice™ 1233zd(E) are common to many carrier solvents, including many of those already listed as acceptable under SNAP. EPA finds trans-1-chloro-3,3,3-trifluoroprop-1-ene (Solstice™ 1233zd(E)) acceptable in the end uses listed above because the overall environmental and human health risk posed by Solstice™ 1233zd(E) is lower than or comparable to the risks posed by other substitutes found acceptable in the same end uses.

**E. Fire Suppression**

1. **K-Ace**

   EPA’s decision: EPA finds K-Ace acceptable as a substitute for total flooding uses in both occupied and unoccupied areas.

   K-Ace is a blend by weight of 50% percent potassium acetate, which is also known as C₂H₃O₂ (CAS Reg. No. 127–08–2), and 50% water (CAS Reg. No. 7732–18–5). You may find the submission under Docket item EPA–HQ–OAR–2003–0118–0320 (continuation of Air Docket A–91–42) at [http://www.regulations.gov](http://www.regulations.gov).

   **Environmental information**: K-Ace has no ODP and no GWP. K-Ace does not contain any VOC as defined under CAA regulations (see 40 CFR 51.100(s)) addressing the development of SIPs to attain and maintain the national ambient air quality standards. K-Ace is expected to aerosolize rapidly during expulsion from the fire suppression system and then settle as a salt water film on surfaces in the space being protected, rather than becoming airborne and moving to surface waters. After settling, cleanup would involve confining the release and recovering as much of the solution as possible, and washing or rinsing of surfaces. During cleanup, we recommend that discharges of K-Ace be disposed of in accordance with local, state, and federal requirements and the manufacturer’s MSDS.

   **Flammability information**: K-Ace is not flammable.

   **Toxicity and exposure data**: K-Ace is not expected to pose a risk to human health, as the active ingredient is potassium acetate, which is commonly used in pharmaceuticals, foods, and textiles. Potassium acetate is approved by the U.S. Food and Drug Administration (FDA) as a synthetic flavoring (21 CFR 172.515) and to treat diabetic ketoacidosis via injection (FDA Application No. NDA 018896). Potassium acetate may cause gastrointestinal discomfort or minor irritation to the eyes, skin, or respiratory tract. Given the low toxicity of its constituents, EPA expects no adverse health effects when the recommended safety precautions and normal industry practices are applied and use of the substitute is in accordance with the manufacturer’s MSDS. To minimize worker exposure to any chemicals during manufacture, installation, and maintenance through an accidental release or spill, EPA has outlined the following recommendations in accordance with established good manufacturing practices:

   - Training in safe handling procedures for employees that would likely handle containers of K-Ace or extinguishing units filled with the material;
   - Use of PPE selected in accordance with the OSHA Technical Manual by employees handling the proposed substitute;
   - Adequate ventilation;
   - Clean-up of all spills immediately in accordance with good industrial hygiene practices.

   **Comparison to other fire suppressants**: K-Ace has no ODP or GWP. K-Ace’s ODP of zero is comparable to those of other acceptable non-ozone-depleting substitutes for this end use, such as Cold Fire®, Inert Gas 541, HFC-227ea, and HFC-125, and in contrast to Halon 1301, an ODS which it replaces, with an ODP of 16. K-Ace’s GWP of zero is less than that of a number of other acceptable substitutes for this end use, such as HFC-227ea with a GWP of 3220 and HFC-125 with a GWP of 3500 and is comparable to that of other acceptable substitutes for this end use, such as Cold Fire® with a GWP of 0 and Inert Gas 541 with a GWP of 0. Furthermore, K-Ace’s GWP is lower than that of Halon 1301, an ODS it replaces, with a direct GWP of 7140.

   Toxicity risks are low, as discussed above, if used in accordance with the MSDS. EPA finds K-Ace acceptable in the end use listed above because the overall environmental and human health risk posed by K-Ace is lower than or comparable to the risks posed by other substitutes found acceptable in the same end use.

II. **Section 612 Program**

**A. Statutory Requirements and Authority for the SNAP Program**

Section 612 of the Clean Air Act (CAA) requires EPA to develop a program for evaluating alternatives to ozone-depleting substances (ODSs). EPA refers to this program as the Significant New Alternatives Policy (SNAP) program. The major provisions of section 612 are:

1. **Rulemaking**

   Section 612(c) requires EPA to promulgate rules making it unlawful to replace any class I substance (chlorofluorocarbon, halon, carbon tetrachloride, methyl chloroform, and hydrobromofluorocarbon) or class II substance (hydrochlorofluorocarbon) with any substitute that the Administrator determines may present adverse effects to human health or the environment where the Administrator has identified an alternative that (1) reduces the overall risk to human health and the environment, and (2) is currently or potentially available.

2. **Listing of Unacceptable/Acceptable Substitutes**

   Section 612(c) requires EPA to publish a list of the substitutes unacceptable for specific uses and to publish a corresponding list of
acceptable alternatives for specific uses. The list of acceptable substitutes may be found at http://www.epa.gov/ozone/snap/lists/index.html and the lists of “unacceptable,” “acceptable subject to use conditions,” and “acceptable subject to narrowed use limits” substitutes are found in the appendices to subpart G of 40 CFR part 82.

3. Petition Process

Section 612(d) grants the right to any person to petition EPA to add a substance to, or delete a substance from, the lists published in accordance with section 612(c). The Agency has 90 days to grant or deny a petition. Where the Agency grants the petition, EPA must publish the revised lists within an additional six months.

4. 90-Day Notification

Section 612(e) directs EPA to require any person who produces a chemical substitute for a class I substance to notify the Agency not less than 90 days before new or existing chemicals are introduced into interstate commerce for significant new uses as substitutes for a class I substance. The producer must also provide the Agency with the producer’s unpublished health and safety studies on such substitutes.

5. Outreach

Section 612(b)(1) states that the Administrator shall seek to maximize the use of federal research facilities and resources to assist users of class I and II substances in identifying and developing alternatives to the use of such substances in key commercial applications.

6. Clearinghouse

Section 612(b)(4) requires the Agency to set up a public clearinghouse of alternative chemicals, product substitutes, and alternative manufacturing processes that are available for products and manufacturing processes which use class I and II substances.

B. EPA’s Regulations Implementing Section 612

On March 18, 1994, EPA published the original rulemaking (59 FR 13044) which established the process for administering the SNAP program and issued EPA’s first lists identifying acceptable and unacceptable substitutes in the major industrial use sectors (subpart G of 40 CFR part 82). These sectors—refrigeration and air conditioning; foam blowing; cleaning solvents; fire suppression and explosion protection; sterilants; aerosols; adhesives, coatings and inks; and tobacco expansion—are the principal industrial sectors that historically consumed the largest volumes of ODS.

Section 612 of the CAA requires EPA to list as acceptable those substances that do not present a significantly greater risk to human health and the environment as compared with other substitutes that are currently or potentially available.

C. How the Regulations for the SNAP Program Work

Under the SNAP regulations, anyone who plans to market or produce a substitute to replace a class I substance or class II substance in one of the eight major industrial use sectors must provide notice to the Agency, including health and safety information on the substitute, at least 90 days before introducing it into interstate commerce for significant new use as an alternative. 40 CFR 82.176(a). This requirement applies to the persons planning to introduce a substitute into interstate commerce, which typically are chemical manufacturers but may include importers, formulators, equipment manufacturers, and end-users when they are responsible for introducing a substitute into commerce. The 90-day SNAP review process begins once EPA receives the submission and determines that the submission includes complete and adequate data. 40 CFR 82.180(a). The CAA and the SNAP regulations, 40 CFR 82.174(a), prohibit use of a substitute earlier than 90 days after notice has been provided to the Agency.

The Agency has identified four possible decision categories for substitutes that are submitted for evaluation: acceptable; acceptable subject to use conditions; acceptable subject to narrowed use limits; and unacceptable. Use conditions and narrowed use limits are both considered “use restrictions” and are explained below. Substitutes that are deemed acceptable with no use restrictions (no use conditions or narrowed use limits) can be used for all applications within the relevant end-uses within the sector. Substitutes that are acceptable subject to use restrictions may be used only in accordance with those restrictions.

After reviewing a substitute, the Agency may make a determination that a substitute is acceptable only if certain conditions in the way that the substitute is used are met to minimize risks to human health and the environment. EPA describes such substitutes as “acceptable subject to use conditions.” Entities that use these substitutes without meeting the associated use conditions are in violation of EPA’s SNAP regulations. 40 CFR 82.174(c).

For some substitutes, the Agency may permit a narrowed range of use within an end-use or sector. For example, the Agency may limit the use of a substitute to certain end-uses or specific applications within an industry sector. EPA describes these substitutes as “acceptable subject to narrowed use limits.” A person using a substitute that is acceptable subject to narrowed use limits in applications and end-uses that are not consistent with the narrowed use limit is using the substitute in an unacceptable manner and is in violation of section 612 of the CAA and EPA’s SNAP regulations. 40 CFR 82.174(c).

The Agency publishes its SNAP program decisions in the Federal Register (FR). EPA publishes decisions concerning substitutes that are deemed acceptable subject to use restrictions (use conditions and/or narrowed use limits), or substitutes deemed unacceptable, as proposed rulemakings to provide the public with an opportunity to comment, before publishing final decisions.

In contrast, EPA publishes decisions concerning substitutes that are deemed acceptable with no restrictions as “notices of acceptability” or “determinations of acceptability,” rather than as proposed and final rules. As described in the preamble to the rule initially implementing the SNAP program in the Federal Register at 59 FR 13044 on March 18, 1994, EPA does not believe that rulemaking procedures are necessary to list alternatives that are acceptable without restrictions because such listings neither impose any sanction nor prevent anyone from using a substitute.

D. Additional Information About the SNAP Program

For copies of the comprehensive SNAP lists of substitutes or additional information on SNAP, refer to EPA’s
Ozone Depletion Web site at: www.epa.gov/ozone/snap/index.html. For more information on the Agency's process for administering the SNAP program or criteria for evaluation of substitutes, refer to the SNAP final rulemaking in the Federal Register at 59 FR 13044 on March 18, 1994, codified at 40 CFR part 82, subpart G. A complete chronology of SNAP decisions and the appropriate citations is found at: http://www.epa.gov/ozone/snap/chron.html.

List of Subjects in 40 CFR Part 82
Environmental protection, Administrative practice and procedure.

Appendix A: Summary of Acceptable Decisions

<table>
<thead>
<tr>
<th>End-Use</th>
<th>Substitute</th>
<th>Decision</th>
<th>Further information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ice skating rinks (retrofit only).</td>
<td>R–442A (RS–50)</td>
<td>Acceptable ..</td>
<td>The manufacturer has an acceptable exposure limit of 1000 ppm over an 8-hour time-weighted average for R–442A.</td>
</tr>
<tr>
<td>Commercial ice machines (retrofit only).</td>
<td>R–442A (RS–50)</td>
<td>Acceptable ..</td>
<td>The manufacturer has an acceptable exposure limit of 1000 ppm over an 8-hour time-weighted average for R–442A.</td>
</tr>
<tr>
<td>Retail food refrigeration (rack refrigeration systems only) (retrofit only).</td>
<td>R–442A (RS–50)</td>
<td>Acceptable ..</td>
<td>The manufacturer has an acceptable exposure limit of 1000 ppm over an 8-hour time-weighted average for R–442A.</td>
</tr>
</tbody>
</table>

1 Follow all precautions in the MSDS and any guidance from the manufacturer.

<table>
<thead>
<tr>
<th>End-Use</th>
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<th>Decision</th>
<th>Further information 1</th>
</tr>
</thead>
</table>

1 Follow all precautions in the MSDS and any guidance from the manufacturer.

<table>
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<tr>
<th>End-Use</th>
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<th>Decision</th>
<th>Further information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Metals cleaning ........</td>
<td>Trans-1-chloro-3,3,3-trifluoroprop-1-ene (Solstic® 1233zd(E)).</td>
<td>Acceptable ..</td>
<td>Trans-1-chloro-3,3,3-trifluoroprop-1-ene has an ODP of approximately 0.00024 at temperate latitudes. It has a 100-year global warming potential of 4.7 to 7. Its Chemical Abstracts Service Registry number (CAS Reg. No.) is 102687–65–0. The manufacturer recommends an acceptable exposure limit of 300 ppm over an 8-hour time-weighted average for trans-1-chloro-3,3,3-trifluoroprop-1-ene.</td>
</tr>
<tr>
<td>Electronics cleaning ......</td>
<td></td>
<td></td>
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</tbody>
</table>

Sarah Dunham,
Director, Office of Atmospheric Programs.
### SOLVENT CLEANING—Continued

<table>
<thead>
<tr>
<th>End-Uses</th>
<th>Substitute</th>
<th>Decision</th>
<th>Further information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Precision cleaning</td>
<td>Note that this substitute boils at</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>room temperature. Therefore, EPA</td>
<td></td>
<td>recommends using this substitute in equipment designed to minimize solvent losses, emissions and worker exposure. Examples of such equipment include containers with connected hoses and valves that allow for direct transfer of the solvent to cleaning equipment, and enclosed or low-emission cleaning equipment.</td>
</tr>
<tr>
<td></td>
<td>recommend using this substitute in</td>
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<td></td>
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<tr>
<td></td>
<td>equipment designed to minimize</td>
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<td>solvent losses, emissions and</td>
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<tr>
<td></td>
<td>worker exposure. Examples of such</td>
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<td>equipment include containers with</td>
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<td></td>
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<td></td>
<td>allow for direct transfer of the</td>
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<td></td>
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<td></td>
<td>solvent to cleaning equipment</td>
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<td></td>
<td>without opening of the storage</td>
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<td></td>
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<tr>
<td></td>
<td>container, and enclosed or low-</td>
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<td></td>
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<tr>
<td></td>
<td>emission cleaning equipment.</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>Observe recommendations in the</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>manufacturer's MSDS and guidance</td>
<td></td>
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<tr>
<td></td>
<td>for using this substitute.</td>
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<td></td>
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</tbody>
</table>

### ADHESIVES, COATINGS AND INKS

<table>
<thead>
<tr>
<th>End-Uses</th>
<th>Substitute</th>
<th>Decision</th>
<th>Further information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adhesives</td>
<td>Trans-1-chloro-3,3,3-trifluorop-</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>pro-1-ene (Solstic™ 1233zd(E)).</td>
<td>Acceptable .</td>
<td>Trans-1-chloro-3,3,3-trifluoroprop-1-ene has an ODP of approximately 0.00024 at temperate latitudes. It has a 100-year global warming potential of 4.7 to 7. Its Chemical Abstracts Service Registry number (CAS Reg. No.) is 102687–65–0.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>The manufacturer recommends an acceptable exposure limit of 300 ppm over an 8-hour time-weighted average for trans-1-chloro-3,3,3-trifluoroprop-1-ene.</td>
</tr>
<tr>
<td>Coatings</td>
<td></td>
<td></td>
<td>Note that this substitute boils at room temperature, which may require some adjustments when switching to this substitute. At this time, it appears to be particularly suitable for spray adhesive applications and dip coatings.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Observe recommendations in the manufacturer’s MSDS and guidance for using this substitute.</td>
</tr>
</tbody>
</table>

### FIRE SUPPRESSION

<table>
<thead>
<tr>
<th>End-Use</th>
<th>Substitute</th>
<th>Decision</th>
<th>Further information 1 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total flooding systems (occupied and unoccupied areas)</td>
<td>K-Ace (solution of 50% potassium acetate and 50% water).</td>
<td>Acceptable .</td>
<td>EPA recommends that use of this system should be in accordance with the manufacturer’s MSDS.</td>
</tr>
</tbody>
</table>

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1 EPA recommends that users consult Section VIII of the OSHA Technical Manual for information on selecting the appropriate types of personal protective equipment for all listed fire suppression agents. EPA has no intention of duplicating or displacing OSHA coverage related to the use of personal protective equipment (e.g., respiratory protection), fire protection, hazard communication, worker training or any other occupational safety and health standard with respect to halon substitutes.

2 Use of all listed fire suppression agents should conform to relevant OSHA requirements, including 29 CFR Part 1910, subpart L, sections 1910.160 and 1910.162.

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[FR Doc. 2013–11871 Filed 5–16–13; 8:45 am]
BILLING CODE 6560–50–P

**ENVIRONMENTAL PROTECTION AGENCY**

**40 CFR Part 180**


**Sulfoxaflor; Pesticide Tolerances**

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

**ACTION:** Final rule.

**SUMMARY:** This regulation establishes tolerances for residues of sulfoxaflor in or on multiple commodities which are identified and discussed later in this document. DOW AgroSciences LLC requested these tolerances under the Federal Food, Drug, and Cosmetic Act (FFDCA).

**DATES:** This regulation is effective May 17, 2013. Objections and requests for hearings must be received on or before July 16, 2013; and must be filed in accordance with the instructions provided in 40 CFR part 178 (see also Unit I.C. of the SUPPLEMENTARY INFORMATION).

**ADDRESSES:** The docket for this action, identified by docket identification (ID) number EPA–HQ–OPP–2010–0889, is available at [http://www.regulations.gov](http://www.regulations.gov) or at the Office of Pesticide Programs Regulatory Public Docket (OPP Docket) in the Environmental Protection Agency Docket Center (EPA/DC), EPA West Bldg., Rm. 3334, 1301 Constitution Ave. NW., Washington, DC 20460–0001. The Public Reading Room is open from 8:30 a.m. to 4:30 p.m., Monday through Friday, excluding legal holidays. The telephone number for the Public Reading Room is (202) 566–1744, and the telephone number for the OPP Docket is (703) 305–5805. Please review the visitor instructions and additional information about the docket available at [http://www.epa.gov/dockets](http://www.epa.gov/dockets).