

the facts in a statement of reasonable cause alleged in support of nonassessment or a complete or partial waiver of the penalty, shall notify the administrator, in writing, of its determination on the statement of reasonable cause and its determination whether to waive the penalty in whole or in part, and/or assess a penalty. If it is the determination of the Department to assess a penalty, the notice shall indicate the amount of the penalty assessment, not to exceed the amount described in paragraph (c) of this section. This notice is a "pleading" for purposes of § 2570.131(m) of this chapter.

(2) Except as provided in paragraph (h) of this section, a notice issued pursuant to paragraph (g)(1) of this section, indicating the Department's determination to assess a penalty, shall become a final order, within the meaning of § 2570.131(g) of this chapter, forty-five (45) days from the date of service of the notice.

(h) *Administrative hearing.* A notice issued pursuant to paragraph (g) of this section will not become a final order, within the meaning of § 2570.131(g) of this chapter, if, within thirty (30) days from the date of the service of the notice, the administrator or a representative thereof files a request for a hearing under §§ 2570.130 through 2570.141 of this chapter, and files an answer to the notice. The request for hearing and answer must be filed in accordance with § 2570.132 of this chapter and § 18.4 of this title. The answer opposing the proposed sanction shall be in writing, and supported by reference to specific circumstances or facts surrounding the notice of determination issued pursuant to paragraph (g) of this section.

(i) *Service of notices and filing of statements.* (1) Service of a notice for purposes of paragraphs (c) and (g) of this section shall be made:

(i) By delivering a copy to the administrator or representative thereof;

(ii) By leaving a copy at the principal office, place of business, or residence of the administrator or representative thereof; or

(iii) By mailing a copy to the last known address of the administrator or representative thereof.

(2) If service is accomplished by certified mail, service is complete upon mailing. If service is by regular mail, service is complete upon receipt by the addressee. When service of a notice under paragraph (c) or (g) of this section is by certified mail, five days shall be added to the time allowed by these rules for the filing of a statement or a request for hearing and answer, as applicable.

(3) For purposes of this section, a statement of reasonable cause shall be considered filed:

(i) Upon mailing, if accomplished using United States Postal Service certified mail or express mail;

(ii) Upon receipt by the delivery service, if accomplished using a "designated private delivery service" within the meaning of 26 U.S.C. 7502(f);

(iii) Upon transmittal, if transmitted in a manner specified in the notice of intent to assess a penalty as a method of transmittal to be accorded such special treatment; or

(iv) In the case of any other method of filing, upon receipt by the Department at the address provided in the notice of intent to assess a penalty.

(j) *Liability.* (1) If more than one person is responsible as administrator for the failure to furnish the items required under section 101(j), (k), or (l), or section 514(e)(3) of the Act, as applicable, all such persons shall be jointly and severally liable for such failure. For purposes of paragraph (a)(1)(iii) of this section, the term "administrator" shall include plan sponsor (within the meaning of section 3(16)(B) of the Act).

(2) Any person, or persons under paragraph (j)(1) of this section, against whom a civil penalty has been assessed under section 502(c)(4) of the Act, pursuant to a final order within the meaning of § 2570.131(g) of this chapter shall be personally liable for the payment of such penalty.

(k) *Cross-references.* (1) The procedural rules in §§ 2570.130 through 2570.141 of this chapter apply to administrative hearings under section 502(c)(4) of the Act.

(2) When applying procedural rules in §§ 2570.130 through 2570.140:

(i) Wherever the term "502(c)(7)" appears, such term shall mean "502(c)(4)";

(ii) Reference to § 2560.502c-7(g) in 2570.131(c) shall be construed as reference to § 2560.502c-4(g) of this chapter;

(iii) Reference to § 2560.502c-7(e) in § 2570.131(g) shall be construed as reference to § 2560.502c-4(e) of this chapter;

(iv) Reference to § 2560.502c-7(g) in § 2570.131(m) shall be construed as reference to § 2560.502c-4(g); and

(v) Reference to §§ 2560.502c-7(g) and 2560.502c-7(h) in § 2570.134 shall be construed as reference to §§ 2560.502c-4(g) and 2560.502c-4(h), respectively.

Signed at Washington, DC, this 24th day of December 2008.

**Bradford P. Campbell,**

*Assistant Secretary, Employee Benefits Security Administration, Department of Labor.*

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## **ENVIRONMENTAL PROTECTION AGENCY**

### **40 CFR Part 82**

**[EPA-HQ-OAR-2003-0118; FRL-8758-9]**

**RIN 2060-AG12**

### **Protection of Stratospheric Ozone: Notice 23 for Significant New Alternatives Policy Program**

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

**ACTION:** Determination of Acceptability.

**SUMMARY:** This Determination of Acceptability expands the list of acceptable substitutes for ozone-depleting substances under the U.S. Environmental Protection Agency's (EPA) Significant New Alternatives Policy (SNAP) program. The determinations concern new substitutes for use in the refrigeration and air conditioning, fire suppression and explosion protection, and foam blowing sectors.

**DATES:** Effective January 2, 2009.

**ADDRESSES:** EPA has established a docket for this action under Docket ID No. EPA-HQ-OAR-2003-0118 (continuation of Air Docket A-91-42). All electronic documents in the docket are listed in the index at <http://www.regulations.gov>. Although listed in the index, some information is not publicly available, i.e., Confidential Business Information (CBI) or other information whose disclosure is restricted by statute. Publicly available docket materials are available either electronically at [www.regulations.gov](http://www.regulations.gov) or in hard copy at the EPA Air Docket (No. A-91-42), 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, and the telephone number for the Air Docket is (202) 566-1742.

**FOR FURTHER INFORMATION CONTACT:** Margaret Sheppard by telephone at (202) 343-9163, by facsimile at (202) 343-2338, by e-mail at [sheppard.margaret@epa.gov](mailto:sheppard.margaret@epa.gov), or by mail at U.S. Environmental Protection

Agency, Mail Code 6205J, 1200 Pennsylvania Avenue, NW., Washington, DC 20460. Overnight or courier deliveries should be sent to the office location at 1310 L Street, NW., 10th floor, Washington, DC 20005.

For more information on the Agency's process for administering the SNAP program or criteria for evaluation of substitutes, refer to the original SNAP rulemaking published in the **Federal Register** on March 18, 1994 (59 FR 13044). Notices and rulemakings under the SNAP program, as well as other EPA publications on protection of stratospheric ozone, are available at EPA's Ozone Depletion World Wide Web site at <http://www.epa.gov/ozone/> including the SNAP portion at <http://www.epa.gov/ozone/snap/>.

#### SUPPLEMENTARY INFORMATION:

- I. Listing of New Acceptable Substitutes
    - A. Refrigeration and Air Conditioning
    - B. Fire Suppression and Explosion Protection
    - C. Foam Blowing
  - II. Section 612 Program
    - A. Statutory Requirements
    - B. Regulatory History
- 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, fire suppression and explosion protection, and foam blowing sectors. For copies of the full list of ODS substitutes in all industrial sectors, visit EPA's Ozone Depletion 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. 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, 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. Thus, many of these statements, if adopted, would not require significant changes to existing operating practices.

You can find submissions to EPA for the use of the substitutes listed in this document and other materials supporting the decisions in this action in docket EPA-HQ-OAR-2003-0118 at <http://www.regulations.gov>.

#### A. Refrigeration and Air Conditioning

##### 1. R-407A

###### EPA's decision:

R-407A [R-32/125/134a (20.0/40.0/40.0)] is acceptable for use in new and retrofit equipment as a substitute for hydrochlorofluorocarbon (HCFC)-22 and HCFC blends including, but not limited to, R-401A, R-401B, R-402A, and R-402B in:

- Retail food refrigeration.
- Cold storage warehouses.
- Refrigerated transport.
- Residential and light commercial air conditioning and heat pumps.

R-407A is a blend of 40.0% by weight HFC-125 (pentafluoroethane, CAS ID #354-33-6), 40.0% by weight HFC-134a (1,1,1,2-tetrafluoroethane, CAS ID #811-97-2), and 20.0% by weight HFC-32 (difluoromethane, CAS ID #75-10-5). This blend is also known by the trade names KLEA 60, KLEA 407A, and others. You may find the submission under Docket item EPA-HQ-OAR-2003-0118-0167 at

[www.regulations.gov](http://www.regulations.gov).

###### Environmental information:

The ozone depletion potential (ODP) of R-407A is zero. The global warming potentials (GWPs) of HFC-125, HFC-134a, and HFC-32 are 3500, 1430, and 675, respectively (relative to carbon dioxide), using a 100-year time horizon (The International Panel on Climate Change [IPCC], Fourth Assessment Report, *Climate Change 2007: The Physical Science Basis*). The atmospheric lifetimes of these constituents are 29, 14, and 4.9 years, respectively.

The contribution of this blend to greenhouse gas emissions will be reduced given the venting prohibition under section 608(c)(2) of the Clean Air Act. This section and EPA's implementing regulations codified at 40 CFR part 82, subpart F prohibit the intentional venting or release of substitutes for class I or class II ODSs used during the repair, maintenance, service or disposal of refrigeration and air conditioning equipment (i.e., appliances).

HFC-125, HFC-134a, and HFC-32 are excluded from the definition of volatile organic compound (VOC) under Clean Air Act 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.

#### Flammability information:

While one of the blend components, HFC-32, is flammable, the blend as formulated and under worst case fractionated formulation scenarios is not flammable.

#### Toxicity and exposure data:

Potential health effects of this substitute at lower concentrations include dizziness and loss of concentration. The substitute may also irritate the skin or eyes or cause frostbite. At sufficiently high concentrations, it may cause central nervous system depression, irregular heart beat, 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 refrigerants.

To protect against these potential health risks, HFC-125, HFC-134a, and HFC-32 have 8 hour/day, 40 hour/week workplace environmental exposure limits (WEELs) of 1000 ppm established by the American Industrial Hygiene Association (AIHA). EPA recommends that users follow all requirements and recommendations specified in the Material Safety Data Sheet (MSDS) for the blend and the individual components and other safety precautions common in the refrigeration and air conditioning industry. We also recommend that users of R-407A adhere to the AIHA's WEELs. EPA anticipates that users will be able to meet the WEELs and will be able to address potential health risks by following requirements and recommendations in the MSDSs and other safety precautions common in the refrigeration and air conditioning industry.

#### Comparison to other refrigerants:

R-407A is not an ozone depleter in contrast to the ozone-depleting substances which it replaces. R-407A is comparable to other substitutes for HCFC-22 and its blends in its lack of risk for ozone depletion. (HCFC-22 has an ODP of 0.05 and a GWP of 1810, according to the *Scientific Assessment of Ozone Depletion: 2006* prepared by the World Meteorological Organization (WMO, 2006).) R-407A has a GWP of about 2100, comparable to or lower than that of other substitutes for HCFC-22. For example, the GWP of R-407C is about 3350, the GWP of R-410A is about 2100, and the GWP of R-507 is about 4000. Flammability and toxicity risks are low, as discussed above. Thus, we find that R-407A is acceptable because it does not pose a greater overall risk to public health and the environment than the other substitutes acceptable in the end uses listed above.

## 2. KDD6

*EPA's decision:*

KDD6 is acceptable for use in new and retrofit equipment as a substitute for CFC-12 in:

- Chillers (screw, reciprocating).
- Industrial process refrigeration.
- Industrial process air conditioning.
- Retail food refrigeration.
- Cold storage warehouses.
- Refrigerated transport.
- Commercial ice machines.
- Ice skating rinks.
- Household refrigerators and freezers.
- Vending machines.
- Water coolers.
- Residential dehumidifiers.
- Residential and light commercial air conditioning and heat pumps.
- Non-mechanical heat transfer.

The submitter of KDD6 has claimed its composition as confidential business information. You may find the submission under Docket item EPA-HQ-OAR-2003-0118-0197 at [www.regulations.gov](http://www.regulations.gov).

*Environmental information:*

The ODP of KDD6 is zero. The average 100-year integrated GWP of this blend is between 2100 and 3350, in the range of the GWPs for R-407C and R-410A, two other commonly used substitute refrigerants.

The contribution of this blend to greenhouse gas emissions will be reduced given the venting prohibition under section 608(c)(2) of the Clean Air Act. This section and EPA's implementing regulations codified at 40 CFR part 82, subpart F prohibit the intentional venting or release of substitutes for class I or class II ODSs used during the repair, maintenance, service or disposal of refrigeration and air conditioning equipment (i.e., appliances).

Some components of the blend are VOCs under Clean Air Act regulations (see 40 CFR 51.100(s)) addressing the development of SIPs to attain and maintain the national ambient air quality standards.

*Flammability information:*

While at least one of the blend components is flammable, the blend as formulated and under worst-case fractionated formulation scenarios is not flammable.

*Toxicity and exposure data:*

Potential health effects of this substitute at lower concentrations include dizziness and loss of concentration. The substitute may also irritate the skin or eyes or cause frostbite. At sufficiently high concentrations, it may cause central nervous system depression, irregular

heart beat, 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 refrigerants.

To protect against these potential health risks, the manufacturer recommends an 8-hr TWA workplace exposure limit for the blend of 994 ppm. A number of components of the blend have workplace exposure limits of 1000 ppm set by the manufacturer, the AIHA, or the ACGIH. EPA anticipates that users will be able to meet the manufacturer's recommended workplace exposure limit and will be able to address potential health risks by following requirements and recommendations in the MSDS and other safety precautions common in the refrigeration and air conditioning industry.

*Comparison to other refrigerants:*

KDD6 is not an ozone depleter; thus, it poses a lower risk for ozone depletion than the ODS it replaces. KDD6 has comparable or lower risk for ozone depletion than other substitutes for CFC-12. (CFC-12 has an ODP of 1.0 and a GWP of 10,890 (WMO, 2006).) KDD6 has a GWP comparable to or lower than that of other substitutes for CFC-12. For example, the GWP of R-407C is about 3350, the GWP of R-410A is about 2100, and the GWP of R-507 is about 4000. Flammability and toxicity risks are low, as discussed above. We find that KDD6 is acceptable because it does not pose a greater overall risk to public health and the environment than the other substitutes acceptable in the end uses listed above.

## 3. R-427A

*EPA's decisions:*

R-427A [R-32/125/143a/134a (15.0/25.0/10.0/50.0)] is acceptable for use in retrofit equipment as a substitute for HCFC-22 in:

- Retail food refrigeration.
- Industrial process air conditioning.
- Reciprocating chillers.
- Screw chillers.
- Household refrigerators and freezers.
- Residential and light commercial air conditioning and heat pumps.
- Motor vehicle air conditioning (buses and passenger trains only).

R-427A is a blend of 25.0% by weight HFC-125 (pentafluoroethane, CAS ID #354-33-6), 50% by weight HFC-134a (1,1,1,2-tetrafluoroethane, CAS ID #811-97-2), 10.0% by weight HFC-143a (1,1,1-trifluoroethane, CAS ID #420-46-2), and 15.0% HFC-32 (difluoromethane, CAS ID #75-10-5). A common trade name for this refrigerant is Forane 427A. You may find the

submission under Docket item EPA-HQ-OAR-2003-0118-0177 at [www.regulations.gov](http://www.regulations.gov).

*Environmental information:*

The ODP of R-427A is zero. The GWPs of HFC-125, HFC-134a, HFC-143a, and HFC-32 are 3500, 1430, 4470, and 675, respectively. The atmospheric lifetimes of these constituents are 29, 14, 52, and 4.9 years, respectively.

The contribution of this blend to greenhouse gas emissions will be reduced given the venting prohibition under section 608(c)(2) of the Clean Air Act. This section and EPA's implementing regulations codified at 40 CFR part 82, subpart F prohibit the intentional venting or release of substitutes for class I or class II ODSs used during the repair, maintenance, service or disposal of refrigeration and air conditioning equipment (i.e., appliances).

HFC-32, HFC-125, HFC-134a, and HFC-143a are exempt from the definition of VOC under Clean Air Act regulations concerning the development of SIPs to attain and maintain the national ambient air quality standards. 40 CFR 51.100(s).

*Flammability information:*

While two components of the blend, HFC-32 and HFC-143a, are flammable, the blend as formulated and under worst-case fractionated formulation scenarios is not flammable.

*Toxicity and exposure data:*

Potential health effects of this substitute at lower concentrations include dizziness and loss of concentration. The substitute may also irritate the skin or eyes or cause frostbite. At sufficiently high concentrations, it may cause central nervous system depression, irregular heart beat, 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 refrigerants.

To protect against these potential health risks, HFC-125, HFC-134a, HFC-143a and HFC-32 have 8 hour/day, 40 hour/week WEELS of 1000 ppm established by the AIHA. EPA recommends that users follow all requirements and recommendations specified in the MSDS for the blend and the individual components and other safety precautions common in the refrigeration and air conditioning industry. EPA also recommends that users of R-427A adhere to the AIHA's WEELS. EPA anticipates that users will be able to meet the WEELS and will be able to address potential health risks by following requirements and recommendations in the MSDSs and other safety precautions common in the

refrigeration and air conditioning industry.

*Comparison to other refrigerants:*

R-427A is not an ozone depleter in contrast to HCFC-22, the ozone depleting substance which it replaces. R-427A is comparable to other substitutes for HCFC-22 in its lack of risk for ozone depletion. (HCFC-22 has an ODP of 0.05 and a GWP of 1810 (WMO, 2006).) R-427A has a GWP of about 2150, comparable to or lower than that of other substitutes for HCFC-22. For example, the GWP of R-407C is about 3350, the GWP of R-410A is about 2100, and the GWP of R-507 is about 4000. The flammability and toxicity risks are low, as discussed above. Thus, we find that R-427A is acceptable because it does not pose a greater overall risk to public health and the environment than the other substitutes acceptable in the end uses listed above.

4. R-424A (RS-44)

*EPA's decision:*

R-424A [R-125/134a/600a/600/601a (50.5/47.0/0.9/1.0/0.6)] is acceptable for use in new and retrofit equipment as a substitute for HCFC-22 in motor vehicle air conditioning (buses and passenger trains only).

R-424A is a blend of 50.5% by weight HFC-125 (pentafluoroethane, CAS ID #354-33-6), 47.0% by weight HFC-134a (1,1,1,2-tetrafluoroethane, CAS ID #811-97-2), 0.9% by weight R-600a (isobutane, 2-methyl propane, CAS ID #75-28-5), 1.0% by weight R-600 (n-butane, CAS ID #106-97-8), and 0.6% by weight R-601a (isopentane, 2-methylbutane, CAS ID #78-78-4). A common trade name for this refrigerant is RS-44. This formulation for RS-44 is different from the first formulation that EPA found acceptable in several refrigerant end uses (August 21, 2003; 68 FR 50533). EPA previously found the current formulation of RS-44, also designated as R-424A, acceptable as a substitute for R-22 in a number of other refrigeration and air conditioning end uses (September 28, 2006, 71 FR 56884). You may find additional information under Docket item EPA-HQ-OAR-2003-0118-0131 at [www.regulations.gov](http://www.regulations.gov).

*Environmental information:*

The ODP of R-424A is zero. The GWPs of HFC-125 and HFC-134a are 3500 and 1430 and their atmospheric lifetimes are 29 and 14 years, respectively. The GWPs of isobutane, n-butane, and isopentane are not provided in the IPCC's Fourth Assessment Report, but are generally believed to be low (less than 10), and their atmospheric lifetimes are less than one year (see Table 2.8 in *Safeguarding the Ozone*

*Layer and the Global Climate System: Issues Related to Hydrofluorocarbons and Perfluorocarbons*, prepared by the IPCC and the Technology and Economic Assessment Panel of the Montreal Protocol).

The contribution of this blend to greenhouse gas emissions will be reduced given the venting prohibition under section 608(c)(2) of the Clean Air Act. This section and EPA's implementing regulations codified at 40 CFR part 82, subpart F prohibit the intentional venting or release of substitutes for class I or class II ODSs used during the repair, maintenance, service or disposal of refrigeration and air conditioning equipment (i.e., appliances).

Isobutane, n-butane, and isopentane are VOCs under Clean Air Act regulations (see 40 CFR 51.100(s)) concerning the development of SIPs to attain and maintain the national ambient air quality standards. HFC-125 and HFC-134a are excluded from the definition of VOC under these regulations.

*Flammability information:*

While three components of the blend are flammable, the blend as formulated, and under worst-case fractionated formulation scenarios, is not flammable.

*Toxicity and exposure data:*

Potential health effects of this substitute at lower concentrations include dizziness and loss of concentration. The substitute may also irritate the skin or eyes or cause frostbite. At sufficiently high concentrations, it may cause central nervous system depression, irregular heart beat, 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 refrigerants.

To protect against these potential health risks, HFC-125 and HFC-134a have 8 hour/day, 40 hour/week WEELs of 1000 ppm established by the AIHA. Isobutane, n-butane and isopentane, have 8 hour/day, 40 hour/week threshold limit values (TLVs) established by the American Conference of Governmental Industrial Hygienists (ACGIH) of 1000 ppm, 800 ppm and 600 ppm, respectively. EPA recommends that users follow all requirements and recommendations specified in the MSDS for the blend and the individual components and other safety precautions common in the refrigeration and air conditioning industry. EPA also recommends that users of R-424A adhere to the AIHA's WEELs and the ACGIH's TLVs. EPA anticipates that users will be able to meet the WEELs and TLVs and will be able to address

potential health risks by following requirements and recommendations in the MSDSs and other safety precautions common in the refrigeration and air conditioning industry.

*Comparison to other refrigerants:*

R-424A is not an ozone depleter in contrast to HCFC-22 which it replaces. It is comparable to other substitutes for HCFC-22 in its lack of risk for ozone depletion. (HCFC-22 has an ODP of 0.05 and a GWP of 1810 (WMO, 2006).) R-424A has a GWP of about 2400, lower than that of some substitutes for HCFC-22 but higher than others. For example, the GWP of R-407C is about 3350, the GWP of R-410A is about 2100, and the GWP of R-507 is about 4000. Flammability and toxicity risks are low, as discussed above. Thus, we find that R-424A is acceptable because it does not pose a greater overall risk to public health and the environment in the end use listed above.

5. R-434A (RS-45)

*EPA's decision:*

R-434A [R-125/143a/134a/600a (63.2/18.0/16.0/2.8)] is acceptable for use in new and retrofit equipment as a substitute for HCFC-22 in motor vehicle air conditioning (buses and passenger trains only).

R-434A is a blend of 18.0% by weight HFC-143a (1,1,1-trifluoroethane, CAS ID #420-46-2), 63.2% by weight HFC-125 (pentafluoroethane, CAS ID #354-33-6), 16.0% by weight HFC-134a (1,1,1,2-tetrafluoroethane, CAS ID #811-97-2), and 2.8% by weight R-600a (isobutane, 2-methyl propane, CAS ID #75-28-5). A common trade name for this refrigerant is RS-45. Under that trade name, EPA previously found R-434A acceptable as a substitute for R-22 in a number of other refrigeration and air conditioning end uses (October 4, 2007, 72 FR 56628). You may find additional information under Docket item EPA-HQ-OAR-2003-0118-0162 at [www.regulations.gov](http://www.regulations.gov).

*Environmental information:*

The ODP of R-434A is zero. The GWPs of HFC-143a, HFC-125, HFC-134a, and isobutane are 4470, 3500, 1430, and less than 10, respectively. The atmospheric lifetimes of these constituents are 52, 29, and 14 years, and less than one year, respectively.

The contribution of this blend to greenhouse gas emissions will be reduced given the venting prohibition under section 608(c)(2) of the Clean Air Act. This section and EPA's implementing regulations codified at 40 CFR part 82, subpart F prohibit the intentional venting or release of substitutes for class I or class II ODSs used during the repair, maintenance,

service or disposal of refrigeration and air conditioning equipment (i.e., appliances).

HFC-143a, HFC-125 and HFC-134a are excluded from the definition of VOC under Clean Air Act regulations (see 40 CFR 51.100(s)) addressing the development of SIPs to attain and maintain the national ambient air quality standards. Isobutane is a VOC under Clean Air Act regulations.

*Flammability information:*

While two of the blend components, isobutane and HFC-143a, are flammable, the blend as formulated and under worst case fractionated formulation scenarios is not flammable.

*Toxicity and exposure data:*

Potential health effects of this substitute at lower concentrations include dizziness and loss of concentration. The substitute may also irritate the skin or eyes or cause frostbite. At sufficiently high concentrations, it may cause central nervous system depression, irregular heart beat, 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 refrigerants.

To protect against these potential health risks, HFC-143a has an 8 hour/day, 40 hour/week recommended acceptable exposure limit for the workplace from the manufacturer of 1000 ppm. HFC-125 and HFC-134a have 8 hour/day, 40 hour/week WEELS of 1000 ppm established by the AIHA. Isobutane has an 8 hour/day, 40 hour/week TLV established by the ACGIH of 1000 ppm. EPA recommends that users follow all requirements and recommendations specified in the Material Safety Data Sheet (MSDS) for the blend and the individual components and other safety precautions common in the refrigeration and air conditioning industry. EPA also recommends that users of R-434A adhere to the AIHA's WEELS and the ACGIH's TLV. EPA anticipates that users will be able to meet the WEELS and the TLV and will be able to address potential health risks by following requirements and recommendations in the MSDS and other safety precautions common in the refrigeration and air conditioning industry.

*Comparison to other refrigerants:*

R-434A is not an ozone depleter in contrast to HCFC-22, the ozone-depleting substance which it replaces. R-434A is comparable to other substitutes for HCFC-22 in its lack of risk for ozone depletion. (HCFC-22 has an ODP of 0.05 and a GWP of 1810 (WMO, 2006).) R-434A has a GWP of about 3200, lower than that of some

substitutes for HCFC-22, but higher than others. For example, the GWP of R-407C is about 3350, the GWP of R-410A is about 2100, and the GWP of R-507 is about 4000. Flammability and toxicity risks are low, as discussed above. Thus, we find that R-434A is acceptable because it does not pose a greater overall risk to public health and the environment than the other substitutes acceptable in the end use listed above.

**B. Fire Suppression and Explosion Protection**

**1. Victaulic Vortex System**

*EPA's decision:*

The Victaulic Vortex System is acceptable as a halon 1301 substitute for total flooding uses in both occupied and unoccupied areas.

The Victaulic Vortex System is a fire suppression system that uses fine water vapor droplets and nitrogen gas (N<sub>2</sub>, CAS ID #7727-37-9). It is designed for use with Class A and Class B fires. You may find the submission under Docket item EPA-HQ-OAR-2003-0118-0172 at [www.regulations.gov](http://www.regulations.gov).

*Environmental information:*

The ozone depletion potential (ODP) and the global warming potential (GWP) of each of the constituents of the Victaulic Vortex System is zero.

The Victaulic Vortex System does not contain volatile organic compounds (VOC) as defined under Clean Air Act 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.

*Flammability information:*

The Victaulic Vortex System is non-flammable.

*Toxicity and exposure data:*

The potential health risks of the Victaulic Vortex System come from N<sub>2</sub>, an inert gas that at sufficiently high levels can cause asphyxiation. The Victaulic Vortex System can be designed to ensure that the oxygen concentration in any protected space will not fall below 12 percent over the 5 minute discharge period, consistent with the health criteria in National Fire Protection Agency (NFPA) Standard 2001 for Clean Agent Fire Extinguishing Systems. EPA recommends that use of this system should be in accordance with the safe exposure guidelines for inert gas systems in the latest edition of NFPA 2001, specifically the requirements for residual oxygen levels, and that use should be in accordance with the relevant operational requirements in NFPA 750 Standard on Water Mist Fire Protection Systems.

EPA also recommends that Section VIII of the Occupational Safety & Health Administration (OSHA) Technical Manual be consulted for information on selecting the appropriate types of Personal Protective Equipment (PPE) recommended.

*Comparison to other fire suppressants:*

The Victaulic Vortex System is not an ozone depleter in contrast to the ozone depleting substance which it replaces. The Victaulic Vortex System has comparable or lower risk for ozone depletion than other substitutes for halon 1301. (Halon 1301 has an ODP of 16 and a GWP of 7140 (WMO, 2006).) The Victaulic Vortex System has a GWP of zero, comparable to or lower than that of other substitutes for halon 1301. For example, the GWP of HFC-227ea is 3220, the GWP of HFC-125 is 3500, and the GWP of HFC-236fa is 9810. The flammability and toxicity risks are low and are comparable or lower than for other acceptable fire suppressants such as IG-100 (N<sub>2</sub>), as discussed above. Thus, we find that the Victaulic Vortex System is acceptable because it does not pose a greater overall risk to public health and the environment than the other substitutes acceptable in the end use listed above.

**2. ATK OS-10**

*EPA's decision:*

The ATK OS-10 system is acceptable as a halon 1301 substitute for total flooding uses in both occupied and unoccupied areas.

The OS-10 system is a fire suppression system that uses gas generators, either singly or several grouped together in a casing, to suppress fires through production mainly of water vapor and nitrogen (N<sub>2</sub>, CAS ID #7727-37-9). You may find the submission under Docket item EPA-HQ-OAR-2003-0118-0198 at [www.regulations.gov](http://www.regulations.gov).

*Environmental information:*

The ODP of each of the gaseous post-activation products of the OS-10 system is zero. The GWPs of the gaseous post-activation products of OS-10 are 1 or less.

The OS-10 system does not contain VOCs as defined under Clean Air Act 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.

*Flammability information:*

The OS-10 system is non-flammable.

*Toxicity and exposure data:*

Upon activation, OS-10 system produces post-activation products mainly consisting of gases and some

particulates. The main post-activation gaseous products are water and N<sub>2</sub>, an inert gas that at sufficiently high levels can cause asphyxiation. The OS-10 system can be designed to ensure that the oxygen concentration in any protected space will not fall below 12 percent over the 5 minute discharge period, consistent with the health criteria in National Fire Protection Agency (NFPA) Standard 2001 for Clean Agent Fire Extinguishing Systems. Testing data provided by the submitter indicate that there will not be a significant amount of particulate left in the room after discharge. Thus, EPA believes that potential toxicity and nuisance dust effects from exposure to the particulate matter should not be detrimental to human health within the five-minute egress timeframe established for total flooding fire extinguishing systems by the NFPA Standard 2001 (NFPA 2008). EPA recommends that use of this system should be in accordance with the safe exposure guidelines for inert gas systems in the latest edition of NFPA 2001, specifically the requirements for residual oxygen levels, and that use should be in accordance with the relevant operational requirements in NFPA Standard 2010 for Aerosol Extinguishing Systems.

Installation and maintenance personnel should receive training in order to minimize the risk for accidental discharge of the system while performing installation or maintenance activities. Exposure of personnel during cleanup should be minimized by increasing the air exchange rate in the room prior to cleanup in order to aerate the space and reduce humidity. In addition, EPA recommends that all workers entering the protected volume to clean up after activation should wear appropriate personal protective equipment (PPE). We recommend consulting section VIII of the Occupational Safety & Health Administration (OSHA) Technical Manual (OSHA 1999) as well as all information from the manufacturer for information on selecting appropriate types of PPE to be worn by personnel involved in the manufacture, installation, maintenance, or clean up of OS-10.

#### *Comparison to other fire suppressants:*

The OS-10 system is not an ozone depleter in contrast to the ozone depleting substance which it replaces. OS-10 has comparable or lower risk for ozone depletion than other substitutes for halon 1301. (Halon 1301 has an ODP of 16 and a GWP of 7140 (WMO, 2006).) The gaseous post-activation products of

OS-10 have GWPs well below those of other substitutes for halon 1301. For example, the GWPs of all of the OS-10 gases are less than 1 compared to the GWP of HFC-227ea at 3220, the GWP of HFC-125 at 3500, and the GWP of HFC-236fa at 9810. The flammability and toxicity risks are low and are comparable or lower than for other acceptable fire suppressants such as IG-100 (N<sub>2</sub>), as discussed above. Thus, we find that the OS-10 system is acceptable because it does not pose a greater overall risk to public health and the environment than the other substitutes acceptable in the end use listed above.

#### *C. Foam Blowing*

##### 1. Formacel® B

#### *EPA's decision:*

Formacel® B is acceptable as a substitute for HCFC-22 and HCFC-142b in polystyrene, extruded boardstock and billet.

Formacel® B is a series of blends of the same component compounds. The submitter has claimed its composition as confidential business information. You may find the submission under Docket item EPA-HQ-OAR-2003-0118-0179 at [www.regulations.gov](http://www.regulations.gov).

#### *Environmental information:*

Formacel® B has no ODP. Formacel® B blends range in global warming potential (GWP) from approximately 140 to 1500. Formacel® B does not contain volatile organic compounds (VOC) as defined under Clean Air Act 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.

#### *Flammability information:*

Some components of the Formacel® B blends are flammable. Some specific blends are flammable as formulated and should be handled with proper precautions. EPA recommends that users follow all requirements and recommendations specified in the Material Safety Data Sheet (MSDS) and other safety precautions for use of flammable blowing agents used in the foam blowing industry. Use of Formacel® B will require safe handling and shipping as prescribed by the Occupational Safety and Health Administration (OSHA) and the Department of Transportation (for example, using personal safety equipment and following requirements for shipping hazardous materials at 49 CFR parts 170 through 173).

#### *Toxicity and exposure data:*

Potential health effects of this substitute include nausea, headache, weakness, or central nervous system

depression with effects such as dizziness, headache, or confusion. The substitute may also irritate the lungs, skin or eyes or cause frostbite. At high concentrations, the substitute may also cause irregular heart beat, abnormal kidney function, loss of consciousness, 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 Formacel® B will be used consistent with the recommendations specified in the manufacturers' Material Safety Data Sheets (MSDSs). The manufacturer recommends a workplace exposure limit of 1000 ppm for Formacel® B. EPA anticipates that users will be able to meet the manufacturer's recommended workplace exposure limits and will be able to address potential health risks by following requirements and recommendations in the MSDSs and other safety precautions common in the foam blowing industry.

#### *Comparison to other foam blowing agents:*

Formacel® B is not ozone depleting in contrast to the ozone depleting substances which it replaces. Formacel® B has comparable or lower risk for ozone depletion than other substitutes for HCFC-22 and HCFC-142b. (HCFC-22 and HCFC-142b have ODPs of 0.05 and 0.07 and GWPs of 1810 and 2310, respectively (WMO, 2006).) Formacel® B blends range in GWP from 140 to 1500, comparable to or lower than that of other substitutes for HCFC-22 and HCFC-142b. For example, the GWP of HFC-134a is about 1430 and the GWP of HFC-245fa is about 1030. Flammability risks can be addressed by procedures common in the industry. The toxicity risks are low, as discussed above. Thus, we find that Formacel® B is acceptable because it does not pose a greater overall risk to public health and the environment than the other substitutes acceptable in the end use listed above.

## **II. Section 612 Program**

### *A. Statutory Requirements*

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

- *Rulemaking*—Section 612(c) requires EPA to promulgate rules making it unlawful to replace any class I (chlorofluorocarbon, halon, carbon tetrachloride, methyl chloroform, and

hydrobromofluorocarbon) or class II (hydrochlorofluorocarbon) substance 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.

- *Listing of Unacceptable/Acceptable Substitutes*—Section 612(c) also requires EPA to publish a list of the substitutes unacceptable for specific uses. We must publish a corresponding list of acceptable alternatives for specific uses.

- *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, it must publish the revised lists within an additional six months.

- *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.

- *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.

- *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. Regulatory History*

On March 18, 1994, EPA published the final rulemaking (59 FR 13044) that described the process for administering the SNAP program and issued our first acceptability lists for substitutes in the major industrial use sectors. These sectors include:

- Refrigeration and air conditioning;
- Foam blowing;
- Solvents cleaning;
- Fire suppression and explosion protection;
- Sterilants;
- Aerosols;
- Adhesives, coatings and inks; and
- Tobacco expansion.

These sectors comprise the principal industrial sectors that historically consumed the largest volumes of ozone-depleting compounds.

As described in this original rule for the SNAP program, EPA does not believe that rulemaking procedures are required to list alternatives as acceptable with no limitations. Such listings do not impose any sanction, nor do they remove any prior license to use a substance. Therefore, by this notice we are adding substances to the list of acceptable alternatives without first requesting comment on new listings.

However, we do believe that notice-and-comment rulemaking is required to place any substance on the list of prohibited substitutes, to list a substance as acceptable only under certain conditions, to list substances as

acceptable only for certain uses, or to remove a substance from the lists of prohibited or acceptable substitutes. We publish updates to these lists as separate notices of rulemaking in the **Federal Register**.

The Agency defines a “substitute” as any chemical, product substitute, or alternative manufacturing process, whether existing or new, intended for use as a replacement for a class I or class II substance. Anyone who plans to market or produces a substitute for an ODS in one of the eight major industrial use sectors must provide EPA with health and safety studies on the substitute at least 90 days before introducing it into interstate commerce for significant new use as an alternative. This requirement applies to substitute manufacturers, but may include importers, formulators, or end-users, when they are responsible for introducing a substitute into commerce.

You can find a complete chronology of SNAP decisions and the appropriate **Federal Register** citations from the SNAP section of EPA's Ozone Depletion World Wide Web site at <http://www.epa.gov/ozone/snap/chron.html>. This information is also available from the Air Docket (see **ADDRESSES** section above for contact information).

**List of Subjects in 40 CFR Part 82**

Environmental protection, Administrative practice and procedure, Air pollution control, Reporting and recordkeeping requirements.

Dated: December 22, 2008.

**Dina Kruger,**

*Acting Director, Office of Atmospheric Programs.*

**Appendix A: Summary of Acceptable Decisions**

End-use	Substitute	Decision	Further information
<b>Refrigeration and Air Conditioning</b>			
Screw chillers (retrofit) .....	R-427A as a substitute for HCFC-22.	Acceptable.	
Screw chillers (retrofit and new) .....	KDD6 as a substitute for CFC-12	Acceptable.	
Reciprocating chillers (retrofit) .....	R-427A as a substitute for HCFC-22.	Acceptable.	
Reciprocating chillers (retrofit and new).	KDD6 as a substitute for CFC-12	Acceptable.	
Industrial process refrigeration (retrofit and new).	KDD6 as a substitute for CFC-12	Acceptable.	
Industrial process air conditioning (retrofit).	R-427A as a substitute for HCFC-22.	Acceptable.	
Industrial process air conditioning (retrofit and new).	KDD6 as a substitute for CFC-12	Acceptable.	
Retail food refrigeration (retrofit) .....	R-427A as a substitute for HCFC-22.	Acceptable.	
Retail food refrigeration (retrofit and new).	KDD6 as a substitute for CFC-12	Acceptable.	

End-use	Substitute	Decision	Further information
Cold storage warehouses (retrofit and new).	R-407A as a substitute for HCFC-22 and HCFC blends including R-401A, R-401B, R-402A, and R-402B. KDD6 as a substitute for CFC-12	Acceptable. Acceptable.	
Refrigerated transport (retrofit and new).	R-407A as a substitute for HCFC-22 and HCFC blends including R-401A, R-401B, R-402A, and R-402B. KDD6 as a substitute for CFC-12	Acceptable. Acceptable.	
Commercial ice machines (retrofit and new).	KDD6 as a substitute for CFC-12	Acceptable.	
Ice skating rinks (retrofit and new)	KDD6 as a substitute for CFC-12	Acceptable.	
Household refrigerators and freezers (retrofit).	R-427A as a substitute for HCFC-22.	Acceptable.	
Household refrigerators and freezers (retrofit and new).	KDD6 as a substitute for CFC-12	Acceptable.	
Vending machines (retrofit and new).	KDD6 as a substitute for CFC-12	Acceptable.	
Water coolers (retrofit and new) .....	KDD6 as a substitute for CFC-12	Acceptable.	
Residential dehumidifiers (retrofit and new).	KDD6 as a substitute for CFC-12	Acceptable.	
Residential and light commercial air conditioning and heat pumps (retrofit).	R-427A as a substitute for HCFC-22.	Acceptable.	
Residential and light commercial air conditioning and heat pumps (retrofit and new).	R-407A as a substitute for HCFC-22 and HCFC blends including R-401A, R-401B, R-402A, and R-402B. KDD6 as a substitute for CFC-12	Acceptable. Acceptable.	
Motor vehicle air conditioning for buses and passenger trains only (retrofit).	R-427A as a substitute for HCFC-22.	Acceptable.	
Motor vehicle air conditioning for buses and passenger trains only (retrofit and new).	R-424A (RS-44, new formulation) as a substitute for HCFC-22.	Acceptable.	
	R-434A (RS-45) as a substitute for HCFC-22.	Acceptable.	
Non-mechanical heat transfer (retrofit and new).	KDD6 as a substitute for CFC-12	Acceptable.	

**Foam Blowing**

Polystyrene, Extruded Boardstock & Billet.	Formace® B as a substitute for HCFC-22 and HCFC-142b.	Acceptable .....	Observe recommendations in the manufacturer's MSDS and guidance for using these blends.
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**Fire Suppression and Explosion Protection**

Total flooding .....	Victaulic Vortex System as a substitute for halon 1301.	Acceptable .....	<p>EPA recommends that users consult Section VIII of the Occupational Safety &amp; Health Administration (OSHA) Technical Manual for information on selecting the appropriate types of Personal Protective Equipment (PPE).</p> <p>EPA recommends that use of this system should be in accordance with the safe exposure guidelines for inert gas systems in the latest edition of NFPA 2001, specifically the requirements for residual oxygen levels, and should be in accordance with the relevant operational requirements in NFPA 750 Standard on Water Mist Fire Protection Systems.</p> <p>Use should conform with relevant OSHA requirements, including 29 CFR part 1910, subpart L, sections 1910.160 and 1910.162.</p>
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End-use	Substitute	Decision	Further information
Total flooding .....	ATK OS-10 as a substitute for halon 1301.	Acceptable .....	<p>EPA has no intention of duplicating or displacing OSHA coverage related to the use of personal protection equipment (e.g., respiratory protection), fire protection, hazard communication, worker training or any other occupational safety and health standard with respect to halon substitutes.</p> <p>EPA recommends that users consult Section VIII of the Occupational Safety &amp; Health Administration (OSHA) Technical Manual for information on selecting the appropriate types of Personal Protective Equipment (PPE).</p> <p>EPA recommends that use of this system should be in accordance with the safe exposure guidelines for inert gas systems in the latest edition of NFPA 2001, specifically the requirements for residual oxygen levels, and should be in accordance with the relevant operational requirements in NFPA Standard 2010 for Aerosol Extinguishing Systems.</p> <p>Use should conform with relevant OSHA requirements, including 29 CFR part 1910, subpart L, sections 1910.160 and 1910.162.</p> <p>EPA has no intention of duplicating or displacing OSHA coverage related to the use of personal protection equipment (e.g., respiratory protection), fire protection, hazard communication, worker training or any other occupational safety and health standard with respect to halon substitutes.</p>

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**DEPARTMENT OF COMMERCE**

**50 CFR Part 648**

[Docket No. 0809251266-81485-02]

RIN 0648-XJ96

**Fisheries of the Northeastern United States; Summer Flounder, Scup, and Black Sea Bass Fisheries; 2009 Summer Flounder, Scup, and Black Sea Bass Specifications; Preliminary 2009 Quota Adjustments; 2009 Summer Flounder Quota for Delaware**

**AGENCY:** National Marine Fisheries Service (NMFS), National Oceanic and Atmospheric Administration (NOAA), Commerce.

**ACTION:** Final rule.

**SUMMARY:** NMFS issues final specifications for the 2009 summer flounder, scup, and black sea bass fisheries. This final rule specifies allowed harvest limits for both commercial and recreational fisheries, including commercial scup possession limits. This action prohibits federally permitted commercial vessels from landing summer flounder in Delaware in 2009 due to continued quota repayment from previous years' overages.

The actions of this final rule are necessary to comply with regulations implementing the Summer Flounder, Scup, and Black Sea Bass Fishery Management Plan (FMP), as well as to ensure compliance with the Magnuson-Stevens Fishery Conservation and Management Act (Magnuson-Stevens Act).

The intent of this action is to establish harvest levels and other management measures to ensure that target fishing mortality rates (F) or exploitation rates, as specified for these species in the FMP, are not exceeded. In addition, this action implements measures that ensure continued rebuilding of these three stocks that are currently under rebuilding plans.

**DATES:** Effective January 1, 2009, through December 31, 2009.

**ADDRESSES:** Copies of the specifications document, including the Environmental Assessment (EA), Regulatory Impact Review (RIR), Initial Regulatory Flexibility Analysis (IRFA), and other supporting documents used by the Summer Flounder, Scup, and Black Sea Bass Monitoring Committees and Scientific and Statistical Committee are available from Daniel Furlong, Executive Director, Mid-Atlantic Fishery Management Council, Room 2115, Federal Building, 300 South New Street, Dover, DE 19901-6790. The specifications document is also accessible via the Internet at <http://www.nero.noaa.gov>.

The Final Regulatory Flexibility Analysis (FRFA) consists of the IRFA, public comments and responses contained in this final rule, and the summary of impacts and alternatives contained in this final rule. Copies of the small entity compliance guide are available from Patricia A. Kurkul, Regional Administrator, Northeast Region, National Marine Fisheries Service, 55 Great Republic Drive, Gloucester, MA 01930-2298.

**FOR FURTHER INFORMATION CONTACT:** Michael Ruccio, Fishery Policy Analyst, (978) 281-9104.

**SUPPLEMENTARY INFORMATION:**

**Background**

The summer flounder, scup, and black sea bass fisheries are managed cooperatively under the provisions of the FMP developed by the Mid-Atlantic Fishery Management Council (Council) and the Atlantic States Marine Fisheries Commission (Commission), in consultation with the New England and South Atlantic Fishery Management Councils. The management units specified in the FMP include summer flounder (*Paralichthys dentatus*) in U.S. waters of the Atlantic Ocean from the southern border of North Carolina (NC) northward to the U.S./Canada border, and scup (*Stenotomus chrysops*) and black sea bass (*Centropristis striata*) in U.S. waters of the Atlantic Ocean from 35°13.3' N. lat. (the latitude of Cape