

# Subpart 23.1 - Sustainable Products and Services

**Parent topic:** [Part 23 - Environment, Sustainable Acquisition, and Material Safety](#)

## 23.100 Scope of subpart.

This subpart provides policies and procedures for procuring *sustainable products and services*. This subpart applies to all *contract actions*, including those using [part 12](#) procedures for the *acquisition of commercial products*, including commercially available off-the-shelf (COTS) items, and *commercial services* and *acquisitions* valued at or below the *micro-purchase threshold*.

## 23.101 Definitions.

As used in this subpart—

*Contract action* means any oral or written action that results in the purchase, rent, or lease of *supplies* or equipment, services, or *construction*.

*Environmental Protection Agency (EPA)-designated item* means a product that is or can be made with *recovered material*—

- (1) That is listed by EPA in a *procurement* guideline ([40 CFR part 247](#)); and
- (2) For which EPA has provided recommended *recovered material* content levels and other purchasing recommendations in a related *Recovered Materials* Advisory Notice (RMAN) (available at <https://www.epa.gov/smm/regulatory-background-comprehensive-procurement-guideline-program-cpg#rman>).

*Global warming potential* means how much a given mass of a chemical contributes to global warming over a given time period compared to the same mass of carbon dioxide. Carbon dioxide's global warming potential is defined as 1.0.

*High global warming potential hydrofluorocarbons* means any *hydrofluorocarbons* in a particular end use for which EPA's Significant New Alternatives Policy (SNAP) program has identified other acceptable alternatives that have lower global warming potential. The SNAP list of alternatives is found at [40 CFR part 82, subpart G](#), with supplemental tables of alternatives available at <https://www.epa.gov/snap/>.

*Hydrofluorocarbons* means compounds that only contain hydrogen, fluorine, and carbon.

*Ozone-depleting substance* means any substance the EPA designates in [40 CFR part 82](#) as—

- (1) Class I, including, but not limited to, chlorofluorocarbons, halons, carbon tetrachloride, and methyl chloroform; or
- (2) Class II, including, but not limited to, hydrochlorofluorocarbons.

*United States*, as defined in the Executive Office of the President's Office of Management and Budget, Council on *Environmental* Quality, and Climate Policy Office Memorandum M-22-06, when used in a geographical sense means—

- (1) The fifty States;
- (2) The District of Columbia;
- (3) The commonwealths of Puerto Rico and the Northern Mariana Islands;
- (4) The territories of Guam, American Samoa, and the *United States* Virgin Islands; and
- (5) Associated territorial waters and airspace.

*U.S. Department of Agriculture (USDA)-designated product category* means a generic grouping of *products* that are or can be made with biobased materials—

- (1) That are listed by *USDA* in a *procurement* guideline (7 CFR part 3201, subpart B); and
- (2) For which *USDA* has provided purchasing recommendations (available at <https://www.biopreferred.gov>).

## **23.102 Authorities.**

(a) Section 208 of Executive Order 14057, Catalyzing Clean Energy Industries and Jobs Through Federal Sustainability, dated December 8, 2021.

(b) Paragraph G of section I of the Executive Office of the President's Office of Management and Budget, Council on *Environmental* Quality, and Climate Policy Office Memorandum M-22-06, Catalyzing Clean Energy Industries and Jobs Through Federal Sustainability, dated December 8, 2021.

(c) Implementing instructions for Executive Order 14057, Catalyzing Clean Energy Industries and Jobs Through Federal Sustainability, dated August 2022.

(d) The authorities referenced in 23.107 for statutory purchasing programs.

## **23.103 Policy.**

(a) Agencies *shall* procure *sustainable products and services* (as defined in 2.101) to the maximum extent practicable.

(1) Procuring *sustainable products and services* is considered practicable, unless the agency cannot acquire *products* or services—

- (i) Competitively within a reasonable performance schedule;
- (ii) That meet reasonable performance requirements; or
- (iii) At a reasonable price (see 23.103(a)(2)).

(2) When considering whether the price of a sustainable product is reasonable, agencies *should* consider whether the product is cost-effective over the life of the product. For ENERGY STAR® or Federal Energy Management Program (FEMP)-designated *products*, a price is reasonable if it is cost-effective over the life of the product taking energy cost savings into account (42 U.S.C. 8259b(b)(2)). Life-cycle cost savings tools for *energy-efficient products* are available at [https://www.energystar.gov/buildings/save\\_energy\\_commercial\\_buildings/ways\\_save/energy\\_efficient\\_products](https://www.energystar.gov/buildings/save_energy_commercial_buildings/ways_save/energy_efficient_products) and <https://www.nrel.gov/analysis/tech-lcoe.html>.

(b) When procuring *sustainable products and services*, agencies *shall*—

(1) Ensure compliance with applicable statutory purchasing program requirements (see 23.107); and

(2) Prioritize multi-attribute *sustainable products and services* (see 23.104(c)(2)).

(c) Regarding *products* under *contract actions* for services or *construction*, the contractor is required to provide *products* that meet the definition of *sustainable products and services* at 2.101, if the *products* are—

(1) Delivered to the Government;

(2) Furnished by the contractor for use by the Government;

(3) Incorporated into the *construction* of a public building or public work; or

(4) Acquired by the contractor for use in performing services under a Government contract where the cost of the *products* is a *direct cost* to a Government contract (versus costs which are normally applied to a contractor's general and administrative expenses or *indirect costs*).

## **23.104 General procedures.**

(a) *Maximum extent practicable*. If the requiring activity submits a written justification addressing the reasons described in 23.103(a)(1), the *contracting officer* may consider it not practicable to procure sustainable *products* or services. A written justification *may* be for a specific product or service or at the *line item* or contract level. The *contracting officer* shall maintain the written justification in the contract file.

(b) *Identification*.

(1) Except as provided in paragraph (b)(2) of this section, the *contracting officer* shall ensure the *solicitation* and contract identifies—

(i) The *sustainable products and services*, including the purchasing program and type of product or service, that are applicable to the *acquisition*, as identified by the requiring activity; and

(ii) Any *products* and services that are not subject to the requirements of this subpart and the clause at 52.223-23, *Sustainable Products and Services*, based on the written justification under paragraph (a) of this section, an exception at 23.105, or an exemption at 23.106.

(2) The requirement in paragraph (b)(1) of this section does not apply if the justification, exception, or exemption covers the entirety of the *contract action* requirements.

(c) *Prioritization.* Agencies shall prioritize *sustainable products and services* as follows:

(1) Procure *products* and *services* that meet applicable statutory purchasing program requirements (see [23.107](#)). When both an EPA-designated item (see [23.107-1](#)) and a *biobased product* in a USDA-designated product category (see [23.107-2](#)) could be used for the same purposes, and there is not an EPA-designated item that is also a *biobased product* in a USDA-designated product category that meets the agency's needs, procure the EPA-designated item.

(2) Consistent with other statutory *procurement* requirements, prioritize multi-attribute *sustainable products and services*, which are those that meet applicable statutory purchasing program requirements (see [23.107](#)) and one or more required EPA purchasing programs (see [23.108](#)).

(3) If no statutory purchasing program requirements apply, procure *sustainable products and services* that meet required EPA purchasing program requirements (see [23.108](#)).

(d) *Resource.* The Green Procurement Compilation (GPC) available at <https://sftool.gov/greenprocurement> provides a comprehensive list of *sustainable products and services* and other related *sustainable acquisition* guidance. In addition to the resources identified for each purchasing program listed in [23.107](#) and [23.108](#), agencies should consult the GPC when determining which purchasing programs apply to a specific product or service.

## 23.105 Exceptions.

The following are excepted from the requirement to procure *sustainable products and services*:

(a) Contracts performed or *supplies* delivered outside of the *United States*, unless the *agency head* determines that such application is in the interest of the *United States*.

(b) Weapon systems; however, compliance with applicable agency affirmative *procurement* programs is required for *recovered materials* per [23.107-1](#) (see [23.109\(b\)](#)) ([42 U.S.C. 6962](#)) and for alternatives for ozone depleting substances per [23.107-4](#) (see [23.109\(d\)](#)) ([42 U.S.C. 76711](#)), unless a written justification exists as described at [23.104\(a\)](#) ([42 U.S.C. 6962\(c\)\(1\)](#)) and [7 U.S.C. 8102\(a\)\(1\)\(B\)](#).

(c) Energy-consuming *products* or systems designed or procured for combat or combat-related missions are not subject to the requirements in [23.107-3](#) ([42 U.S.C. 8259b\(a\)\(5\)](#)).

(d) *Biobased products* to be used in military equipment (*products* or systems designed or procured for combat or combat-related missions), spacecraft systems, or launch support equipment are not subject to the requirements in [23.107-2](#) ([7 CFR 3201.3\(e\)](#)).

## 23.106 Exemptions.

(a) The Director of National Intelligence may exempt an intelligence activity of the *United States* and related personnel, resources, and facilities to the extent the Director determines necessary to protect intelligence sources and methods from unauthorized disclosure.

(b) The head of an agency may exempt the following:

(1) Particular agency activities and related personnel, resources, and facilities when it is in the interest of national security, to protect intelligence sources and methods from unauthorized disclosure, or where necessary to protect undercover law enforcement operations from unauthorized disclosure. The agency *shall* notify the Chair of the Council on *Environmental Quality* (CEQ) *in writing* within 30 days of issuance of the exemption under this paragraph (b)(1).

(2) On an individual or class basis, any manned and unmanned vehicle, vessel, aircraft, or non-road equipment that is used in combat support, combat service support, military tactical or relief operations, or training for such operations or spaceflight vehicles, including associated ground-support equipment.

(c) *Contracting officers* are encouraged, but not required, to procure *sustainable products and services* if the *head of the agency* determines the *supplies* or services are to be used to facilitate defense against or recovery from cyber, nuclear, biological, chemical, or radiological attack; to facilitate provision of international disaster assistance; or to support response to an *emergency* or *major disaster*.

(d) The *head of the agency* may submit to the President, through the Chair of CEQ, a request for an exemption of an agency activity, and related personnel, resources, and facilities from this subpart for any reason not otherwise addressed in this section.

## **23.107 Statutory purchasing programs.**

Agencies *shall* ensure compliance with statutory purchasing program requirements described in [23.107-1](#) through [23.107-4](#).

### **23.107-1 Products containing recovered materials.**

(a) *Authorities*. The Resource Conservation and Recovery Act of 1976 (RCRA), [42 U.S.C. 6962](#), as implemented at [40 CFR part 247](#).

(b) *EPA Comprehensive Procurement Guidelines (CPG) Program*. Under RCRA, EPA *must* designate items that are or can be made with *recovered materials* and *must* also recommend practices to assist procuring agencies in meeting their obligations.

(c) *Applicability*.

(1) This section applies to *contract actions* involving an EPA-designated item, if—

(i) The price of the EPA-designated item exceeds \$10,000; or

(ii) The aggregate amount paid for multiple purchases of the EPA-designated item, or a functionally equivalent item, in the preceding fiscal year was \$10,000 or more.

(2) While *micro-purchases* are included in determining the aggregate amount paid under paragraph (c)(1) of this section, it is not necessary for an agency to track *micro-purchases* when—

(i) The agency anticipates the aggregate amount paid will exceed \$10,000; or

(ii) The agency intends to establish or continue an affirmative *procurement* program as described in paragraph (d) of this section in the following fiscal year.

(d) *Agency affirmative procurement program.* An agency *shall* establish an affirmative *procurement* program for EPA-designated items if the agency's purchases of EPA-designated items exceed the threshold set forth in paragraph (c)(1) of this section.

(1) Agency affirmative *procurement* programs *must* include—

(i) A *recovered materials* preference program;

(ii) A program to promote the *recovered materials* preference program;

(iii) A program for requiring reasonable estimates and certification of *recovered material* used in the performance of contracts, including a preaward certification that *products* will meet EPA recommendations (see [52.223-4](#), *Recovered Material Certification*), and either an estimate or a certification at contract completion (see [52.223-9](#), *Estimate of Percentage of Recovered Material Content for EPA-Designated Items*, and its *Alternate*), as well as agency procedures for verification of estimates and certifications;

(iv) Annual review and monitoring of the effectiveness of the affirmative *procurement* program; and

(v) Guidance for purchases of EPA-designated items at or below the *micro-purchase threshold*.

(2) Technical or requirements personnel and *procurement* personnel are responsible for the preparation, implementation, and monitoring of affirmative *procurement* programs.

(3) Agencies have a period of 1 year to revise their affirmative *procurement* program(s) after the designation of any new item by EPA.

(e) *Procedures.* The following procedures apply when the thresholds set forth in paragraph (c)(1) of this section are exceeded.

(1) Once an item has been designated by EPA, agencies *shall* purchase conforming *products* to the maximum extent practicable in accordance with [23.104\(a\)](#), unless a justification, exception, or exemption applies (see [23.104\(a\)](#), [23.105](#), and [23.106](#), respectively).

(2) Agencies *may* use their own specifications or *commercial product* descriptions when procuring *products* containing *recovered materials*; however, the contract *should* specify that the product is composed of the—

(i) Highest percentage of *recovered materials* practicable; or

(ii) Minimum content standards in accordance with EPA's RMANs.

(3) When acquiring *products* with *recovered material*, the *contracting officer* *may* request information or data on such *products*, including recycled content or related product standards (see [11.301\(c\)](#)).

(f) *Resources.*

(1) For information on EPA-designated items and associated minimum content standards, see <https://www.epa.gov/smm/comprehensive-procurement-guideline-cpg-program#products>.

(2) *Contracting officers should* also consult their agency's affirmative *procurement* program for agency-specific guidance.

## **23.107-2 Biobased products.**

(a) *Authorities.*

(1) The Farm Security and Rural Investment Act of 2002 (FSRIA), [7 U.S.C. 8102](#), as implemented at [7 CFR part 3201](#).

(2) The Energy Policy Act of 2005, [Public Law 109-58](#).

(b) *USDA BioPreferred* ® *Program.* The BioPreferred Program was created in the 2002 Farm Bill and is managed by the *USDA*. The goal of the BioPreferred Program is to increase the purchase and use of *biobased products* (as defined in [2.101](#)) by agencies.

(c) *Applicability.*

(1) This section applies to *contract actions* involving a *biobased product* in a *USDA-designated* product category if—

(i) The price of the *biobased product* exceeds \$10,000; or

(ii) The aggregate amount paid for multiple purchases of the *biobased product*, or for a functionally equivalent product, in the preceding fiscal year was \$10,000 or more.

(2) While *micro-purchases* are included in determining the aggregate amount paid under paragraph (c)(1) of this section, it is not necessary for an agency to track *micro-purchases* when—

(i) The agency anticipates the aggregate amount paid will exceed \$10,000; or

(ii) The agency intends to establish or continue an affirmative *procurement* program in the following fiscal year.

(d) *Agency affirmative procurement program.* An agency *shall* establish an affirmative *procurement* program for *biobased products* in *USDA-designated* product categories if the agency's purchases of such *products* exceed the threshold set forth in paragraph (c)(1) of this section.

(1) Agency affirmative *procurement* programs *must* include—

(i) A *biobased products* preference program;

(ii) A program to promote the *biobased products* preference program;

(iii) A program for requiring preaward certification that *products* meet *USDA* recommendations (see [52.223-1](#), *Biobased Product Certification*) and reporting on *biobased products* used in performance of contracts (see [52.223-2](#), *Reporting of Biobased Products Under Service and Construction Contracts*); and

(iv) Annual review and monitoring of the effectiveness of the program.

(2) Technical or requirements personnel and *procurement* personnel are responsible for the preparation, implementation, and monitoring of affirmative *procurement* programs.

(3) Agencies have a period of 1 year to revise their *procurement* program(s) after *USDA* updates any *USDA*-designated product categories.

(e) *Procedures*. The following procedures apply when the thresholds set forth in paragraph (c)(1) of this section are exceeded.

(1) Once a *biobased product* is included in a *USDA*-designated product category, agencies *shall* purchase conforming *products* to the maximum extent practicable in accordance with 23.104(a), unless a justification, exception, or exemption applies (see 23.104(a), 23.105, and 23.106, respectively).

(2) Agencies *may* use their own specifications or *commercial product* descriptions when procuring *biobased products*; however, the contract *should* specify that the *biobased product* is composed of the—

(i) Highest percentage of biobased material practicable; or

(ii) *USDA*'s recommended minimum contents standards.

(3) When acquiring *biobased products*, the *contracting officer* may request information or data on such *products*, including biobased content or related standards of the *products* (see 11.301(c)).

(4) Agencies *shall* treat as eligible for the preference for *biobased products*, *products* from designated countries, as defined in 25.003, provided that those *products*—

(i) Meet the criteria for the definition of *biobased product*, except that the *products* need not meet the requirement that renewable agricultural materials or forestry materials in such product *must* be domestic; and

(ii) Otherwise meet all requirements for participation in the preference program.

(f) *Resources*.

(1) For information on *USDA*-designated product categories and minimum content standards for *biobased products*, see <https://www.biopreferred.gov>.

(2) *Contracting officers* should also consult their agency's affirmative *procurement* program for agency-specific guidance.

### **23.107-3 Energy-consuming products and water-consuming products.**

(a) *Authorities*.

(1) Energy Policy and Conservation Act (42 U.S.C. 6361(a)(1)).

(2) National Energy Conservation Policy Act (42 U.S.C. 8253, 8259b, and 8262g).



(3) [Executive Order 11912](#) of April 13, 1976, Delegations of Authority under the Energy Policy and Conservation Act.

(4) [Executive Order 13221](#) of July 31, 2001, *Energy-Efficient Standby Power Devices*.

(b) *Programs* —

(1) *ENERGY STAR® Program*. The ENERGY STAR® program is a voluntary product-labeling initiative that identifies and promotes energy and water efficiency and the reduction of *greenhouse gas* emissions. This joint U.S. EPA and Department of Energy program helps buyers save money and protect the environment through energy- and water-efficient *products* and practices.

(2) *Federal Energy Management Program (FEMP)*. FEMP publishes *acquisition* guidance to help Federal buyers meet requirements for purchasing energy-efficient and water-efficient *products*. In addition, in product categories not covered by the ENERGY STAR® program, FEMP sets efficiency requirements for product categories that have the potential to generate significant Federal energy savings.

(c) *Procedures*. To the maximum extent practicable in accordance with [23.104\(a\)](#), unless a justification, exception, or exemption applies (see [23.104\(a\)](#), [23.105](#), and [23.106](#), respectively)—

(1) When acquiring energy- and water-consuming *products* listed in the ENERGY STAR® Program or FEMP—

(i) Agencies *shall* purchase ENERGY STAR® certified or FEMP-designated *products*; and

(ii) For *products* that consume power in a standby mode and are listed on FEMP's Low Standby Power Devices product listing at <https://www.energy.gov/eere/femp/low-standby-power-product-list>, agencies *shall*—

(A) Purchase items that meet FEMP's standby power wattage recommendation or document the reason for not purchasing such items; or

(B) If FEMP has listed a product without a corresponding wattage recommendation, purchase items that use no more than one watt in their standby power consuming mode. When it is impracticable to meet the one-watt requirement, agencies *shall* purchase items with the lowest standby wattage practicable; and

(2) When *contracting* for services or *construction* that will include the provision of energy- and water-consuming *products*, agencies *shall* specify *products* that comply with the applicable requirements in paragraph (c)(1) of this section.

(d) *Resources*.

(1) For information on *products* under the ENERGY STAR® Program, go to <https://www.energystar.gov/products>.

(2) For information on *energy-efficient products*, go to <https://www.energy.gov/eere/femp/search-energy-efficient-products>.

(3) For information on low standby power *products*, go to <https://www.energy.gov/eere/femp/low-standby-power-product-purchasing-requirements-and-compliance-resources>.

## **23.107-4 Products that contain, use, or are manufactured with ozone-depleting substances or products that contain or use high global warming potential hydrofluorocarbons.**

(a) *Authorities.*

(1) Title VI of the Clean Air Act (42 U.S.C. 7671, *et seq.*).

(2) Section 706 of Division D, title VII of the Omnibus Appropriations Act, 2009 (Pub. L. 111-8).

(3) EPA regulations, Protection of Stratospheric Ozone (40 CFR part 82).

(b) *Program.* The EPA SNAP Program.

(c) *Agency program s.* Agencies *shall* implement cost-effective programs to minimize the *procurement* of materials and substances that contribute to the depletion of stratospheric ozone and/or result in the use, release, or emission of high global warming potential *hydrofluorocarbons*.

(d) *Procedures.* Agencies *shall*—

(1) Give preference to the *procurement* of acceptable alternative chemicals, *products*, and manufacturing processes that reduce overall risks to human health and the environment by minimizing—

(i) The depletion of ozone in the upper atmosphere; and

(ii) The potential use, release, or emission of high global warming potential *hydrofluorocarbons*; and

(2) In preparing specifications and purchase descriptions and in the *acquisition* of *products* and services—

(i) Comply with the requirements of title VI of the Clean Air Act; section 706 of division D, title VII of Public Law 111-8; and 40 CFR 82.84(a)(2) through(5);

(ii) Substitute acceptable alternatives to *ozone-depleting substances*, as identified under 42 U.S.C. 7671k, to the maximum extent practicable, as provided in 40 CFR 82.84(a)(1), except in the case of Class I substances being used for specified essential uses, as identified under 40 CFR 82.4(n); and

(iii) Unless a particular contract requires otherwise, specify that, when feasible, contractors *shall* use another acceptable alternative in lieu of a high global warming potential hydrofluorocarbon in *products* and services in a particular end use for which EPA's SNAP program has identified other acceptable alternatives that have lower global warming potential.

(e) *Resource.* Refer to EPA's SNAP program website at <https://www.epa.gov/snap> for the list of alternatives found at 40 CFR part 82, subpart G, as well as supplemental tables of alternatives.

## **23.108 Required Environmental Protection Agency**

## **purchasing programs.**

In accordance with 23.104(c), *contracting officers shall*, after meeting statutory purchasing program requirements in 23.107, purchase to the maximum extent practicable *products* and services that meet EPA purchasing program requirements described in 23.108-1 through 23.108-3.

### **23.108-1 Water-efficient products.**

(a) *Program*. EPA's WaterSense® Program makes it easy to find and select water-efficient *products* that can save water, energy, and money. WaterSense®-labeled *products* are backed by independent, third-party certification and meet EPA's specifications for water efficiency and performance.

(b) *Resource*. For additional information on WaterSense® *products*, see <https://www.epa.gov/watersense/watersense-products>.

### **23.108-2 Chemically-intensive products.**

(a) *Program*. Safer Choice is EPA's label for *products* that contain safer chemicals. Every chemical, regardless of percentage, in a Safer Choice-certified product is evaluated through EPA's rigorous scientific process and only the safest ingredients are allowed.

(b) *Resource*. For information on Safer Choice-certified *products*, see <https://www.epa.gov/saferchoice>.

### **23.108-3 Products and services that are subject to EPA Recommendations of Specifications, Standards, and Ecolabels.**

(a) *Program*. The EPA *Environmentally Preferable* Purchasing (EPP) Program helps *Federal agencies* identify and procure *environmentally preferable products* and services to meet zero emissions and other sustainable *procurement* goals by providing Recommendations of Specifications, Standards, and Ecolabels. The EPP recommendations give preference to multi-attribute or life-cycle based standards and ecolabels that address key *environmental* and human health impact areas and where product conformance is determined by a competent third-party certification body.

(b) *Resource*. For additional information on EPA Recommendations of Specifications, Standards, and Ecolabels, see <https://www.epa.gov/greenerproducts/recommendations-specifications-standards-and-ecolabels-federal-purchasing>.

## **23.109 Solicitation provisions and contract clauses.**

(a) *General*. Insert the clause at 52.223-23, *Sustainable Products and Services*, in *solicitations* and *contracts*—

(1) Unless—

(i) The requiring activity has provided a written justification that it is not practicable to procure *sustainable products and services* (see 23.104(a));

(ii) An exception under 23.105 applies; or

(iii) An exemption under 23.106 applies; and

(2) The scope of the written justification, exception, or exemption covers the entirety of the *contract action* requirements.

(b) *EPA-designated items*. Except for the *acquisition* of COTS items—

(1) Insert the provision at 52.223-4, *Recovered Material Certification*, in *solicitations* that require the delivery or specify the use of EPA-designated items; and

(2) Insert the clause at 52.223-9, *Estimate of Percentage of Recovered Material Content for EPA-designated Items*, in *solicitations* and contracts exceeding \$150,000 that are for, or specify the use of, EPA-designated items containing *recovered materials*. If technical personnel advise that estimates can be verified, use the clause with its *Alternate I*.

(c) *Biobased products in USDA-designated product categories*.

(1) Insert the provision at 52.223-1, *Biobased Product Certification*, in *solicitations*, other than for *acquisitions* described at 23.105(d), that—

(i) Require the delivery or specify the use of *biobased products* in *USDA-designated product categories*; or

(ii) Include the clause at 52.223-2.

(2) Insert the clause at 52.223-2, *Reporting of Biobased Products Under Service and Construction Contracts*, in *service and construction solicitations* and contracts, unless the contract will not involve the use of *biobased products* in *USDA-designated product categories* at <https://www.biopreferred.gov> or 7 CFR part 3201.

(d) *Products containing ozone-depleting substances and hydrofluorocarbons*. Except for contracts for *supplies* that will be delivered outside the *United States* and its *outlying areas*, or contracts for *services* that will be performed outside the *United States* and its *outlying areas*, insert the following clauses:

(1) 52.223-11, *Ozone-Depleting Substances and High Global Warming Potential Hydrofluorocarbons*, in *solicitations* and contracts for-

(i) Refrigeration equipment (in product or service code (PSC) 4110);

(ii) Air conditioning equipment (PSC 4120);

(iii) Clean agent fire suppression systems/equipment ( *e.g.*, installed room flooding systems, portable fire extinguishers, aircraft/tactical vehicle fire/explosion suppression systems) (in PSC 4210);

(iv) Bulk refrigerants and fire suppressants (in PSC 6830);

(v) Solvents, dusters, freezing compounds, mold release agents, and any other miscellaneous

chemical specialty that *may* contain *ozone-depleting substances* or high global warming potential *hydrofluorocarbons* (in PSC 6850);

(vi) Corrosion prevention compounds, foam sealants, aerosol mold release agents, and any other preservative or sealing compound that *may* contain *ozone-depleting substances* or high global warming potential *hydrofluorocarbons* (in PSC 8030);

(vii) Fluorocarbon lubricants (primarily aerosols) (in PSC 9150); and

(viii) Any other *manufactured end products* that *may* contain or be manufactured with *ozone-depleting substances*.

(2) 52.223-12, Maintenance, Service, Repair, or Disposal of Refrigeration Equipment and Air Conditioners, in *solicitations* and contracts that include the maintenance, service, repair, or disposal of-

(i) Refrigeration equipment, such as refrigerators, chillers, or freezers; or

(ii) Air conditioners, including air conditioning systems in motor vehicles.

(3) 52.223-20, Aerosols, in *solicitations* and contracts—

(i) For *products* that *may* contain high global warming potential *hydrofluorocarbons* as a propellant, or as a solvent; or

(ii) That involve maintenance or repair of electronic or mechanical devices.

(4) 52.223-21, Foams, in *solicitations* and contracts for—

(i) *Products* that *may* contain high global warming potential *hydrofluorocarbons* or refrigerant blends containing *hydrofluorocarbons* as a foam blowing agent, such as building foam insulation or appliance foam insulation; or

(ii) *Construction* of buildings or facilities.