

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 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 programs.* 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.