



Department of Energy

Washington, DC 20585

August 6, 2007

MEMORANDUM FOR INGRID KOLB

DIRECTOR
OFFICE OF MANAGEMENT

THRU: BRIAN D. COSTLOW
ACTING DIRECTOR
OFFICE OF INFORMATION RESOURCES

FROM: GLENN S. PODONSKY
CHIEF HEADTH, SAFETY AND SECURITY OFFICER
OFFICE OF HEALTH, SAFETY AND SECURITY

SUBJECT: Notice of Intent to Revise DOE Order 450.1, *Environmental Protection Program*

PURPOSE: Department of Energy (DOE) Order 450.1 establishes the environmental stewardship practices followed by the DOE to protect the natural and cultural resources potentially impacted by departmental operations, and to comply with applicable regulatory requirements. The revision to DOE Order 450.1 will provide DOE elements with the specific expectations for the implementation of Executive Order (E.O.) 13423, *Strengthening Federal Environmental, Energy, and Transportation Management*. The revision is based on new requirements and responsibilities established by the recently issued Presidential Executive Order.

JUSTIFICATION: E.O. 13423 (attachment 1) and the Instructions for Implementation of E.O. 13423 (attachment 2) establish sustainable environmental goals that apply to DOE, stipulate sustainable environmental practices that DOE must implement, and specify actions DOE must execute (e.g., awareness training, progress reporting, etc.). The E.O. also requires DOE to use environmental management systems (EMSs) as the primary management framework to implement, manage, measure, and continually improve upon the sustainable goals and practices of the E.O. Additionally, the E.O. replaced earlier "Greening the Government" Executive Orders that had formed much of the substance of DOE Order 450.1 when originally issued on January 15, 2003.



The Office of Health, Safety and Security believes that meaningful levels of stakeholder involvement in revising DOE Order 450.1 can be achieved within the 90-day processing timeframe stipulated in Directives Process Track #3, and have provided a proposed development schedule (attachment 3).

Revision of DOE Order 450.1 is required to inform DOE elements of necessary modifications to EMSs implemented at DOE sites since this Order was originally issued, and identify the organizations with responsibilities pursuant to the E.O. in order to ensure that DOE implements all aspects of E.O. 13423.

This DOE Order is essential to the Department's continued efforts to protect the environment and the public health. The Order helps fulfill the Department's mission by supporting the Environmental Responsibility and Management Excellence Strategic Themes of the DOE Strategic Plan, as well as the Operating Principle of ensuring safe, secure, and environmentally responsible operations. The proposed directive does not duplicate existing laws, regulations or national standards and it does not create undue burden on the Department.

IMPACT: The revised DOE O 450.1 will expedite DOE conformance with the requirements and responsibilities mandated by the E.O. and achievement of the goals it prescribes for DOE. EMSs are already in place for DOE organizations; modifying them to comply with the E.O. should not be unduly burdensome and will have minimal cost impact.

CONTACT: Thomas Traceski, Office of Nuclear Safety and Environment Policy, 202-586-2481.

DECISION:

Concur: _____

Nonconcur: _____

Timeframe: ___ 30 days ___ 60 days ___ 90 days ___ 120 days

Date: _____



Federal Register

Friday,
January 26, 2007

Part II

The President

**Executive Order 13423—Strengthening
Federal Environmental, Energy, and
Transportation Management**

Presidential Documents

Title 3—**Executive Order 13423 of January 24, 2007****The President****Strengthening Federal Environmental, Energy, and Transportation Management**

By the authority vested in me as President by the Constitution and the laws of the United States of America, and to strengthen the environmental, energy, and transportation management of Federal agencies, it is hereby ordered as follows:

Section 1. Policy. It is the policy of the United States that Federal agencies conduct their environmental, transportation, and energy-related activities under the law in support of their respective missions in an environmentally, economically and fiscally sound, integrated, continuously improving, efficient, and sustainable manner.

Sec. 2. Goals for Agencies. In implementing the policy set forth in section 1 of this order, the head of each agency shall:

(a) improve energy efficiency and reduce greenhouse gas emissions of the agency, through reduction of energy intensity by (i) 3 percent annually through the end of fiscal year 2015, or (ii) 30 percent by the end of fiscal year 2015, relative to the baseline of the agency's energy use in fiscal year 2003;

(b) ensure that (i) at least half of the statutorily required renewable energy consumed by the agency in a fiscal year comes from new renewable sources, and (ii) to the extent feasible, the agency implements renewable energy generation projects on agency property for agency use;

(c) beginning in FY 2008, reduce water consumption intensity, relative to the baseline of the agency's water consumption in fiscal year 2007, through life-cycle cost-effective measures by 2 percent annually through the end of fiscal year 2015 or 16 percent by the end of fiscal year 2015;

(d) require in agency acquisitions of goods and services (i) use of sustainable environmental practices, including acquisition of biobased, environmentally preferable, energy-efficient, water-efficient, and recycled-content products, and (ii) use of paper of at least 30 percent post-consumer fiber content;

(e) ensure that the agency (i) reduces the quantity of toxic and hazardous chemicals and materials acquired, used, or disposed of by the agency, (ii) increases diversion of solid waste as appropriate, and (iii) maintains cost-effective waste prevention and recycling programs in its facilities;

(f) ensure that (i) new construction and major renovation of agency buildings comply with the *Guiding Principles for Federal Leadership in High Performance and Sustainable Buildings set forth in the Federal Leadership in High Performance and Sustainable Buildings Memorandum of Understanding (2006)*, and (ii) 15 percent of the existing Federal capital asset building inventory of the agency as of the end of fiscal year 2015 incorporates the sustainable practices in the *Guiding Principles*;

(g) ensure that, if the agency operates a fleet of at least 20 motor vehicles, the agency, relative to agency baselines for fiscal year 2005, (i) reduces the fleet's total consumption of petroleum products by 2 percent annually through the end of fiscal year 2015, (ii) increases the total fuel consumption that is non-petroleum-based by 10 percent annually, and (iii) uses plug-in hybrid (PIH) vehicles when PIH vehicles are commercially available at

a cost reasonably comparable, on the basis of life-cycle cost, to non-PIH vehicles; and

(h) ensure that the agency (i) when acquiring an electronic product to meet its requirements, meets at least 95 percent of those requirements with an Electronic Product Environmental Assessment Tool (EPEAT)-registered electronic product, unless there is no EPEAT standard for such product, (ii) enables the Energy Star feature on agency computers and monitors, (iii) establishes and implements policies to extend the useful life of agency electronic equipment, and (iv) uses environmentally sound practices with respect to disposition of agency electronic equipment that has reached the end of its useful life.

Sec. 3. Duties of Heads of Agencies. In implementing the policy set forth in section 1 of this order, the head of each agency shall:

(a) implement within the agency sustainable practices for (i) energy efficiency, greenhouse gas emissions avoidance or reduction, and petroleum products use reduction, (ii) renewable energy, including bioenergy, (iii) water conservation, (iv) acquisition, (v) pollution and waste prevention and recycling, (vi) reduction or elimination of acquisition and use of toxic or hazardous chemicals, (vii) high performance construction, lease, operation, and maintenance of buildings, (viii) vehicle fleet management, and (ix) electronic equipment management;

(b) implement within the agency environmental management systems (EMS) at all appropriate organizational levels to ensure (i) use of EMS as the primary management approach for addressing environmental aspects of internal agency operations and activities, including environmental aspects of energy and transportation functions, (ii) establishment of agency objectives and targets to ensure implementation of this order, and (iii) collection, analysis, and reporting of information to measure performance in the implementation of this order;

(c) establish within the agency programs for (i) environmental management training, (ii) environmental compliance review and audit, and (iii) leadership awards to recognize outstanding environmental, energy, or transportation management performance in the agency;

(d) within 30 days after the date of this order (i) designate a senior civilian officer of the United States, compensated annually in an amount at or above the amount payable at level IV of the Executive Schedule, to be responsible for implementation of this order within the agency, (ii) report such designation to the Director of the Office of Management and Budget and the Chairman of the Council on Environmental Quality, and (iii) assign the designated official the authority and duty to (A) monitor and report to the head of the agency on agency activities to carry out subsections (a) and (b) of this section, and (B) perform such other duties relating to the implementation of this order within the agency as the head of the agency deems appropriate;

(e) ensure that contracts entered into after the date of this order for contractor operation of government-owned facilities or vehicles require the contractor to comply with the provisions of this order with respect to such facilities or vehicles to the same extent as the agency would be required to comply if the agency operated the facilities or vehicles;

(f) ensure that agreements, permits, leases, licenses, or other legally-binding obligations between the agency and a tenant or concessionaire entered into after the date of this order require, to the extent the head of the agency determines appropriate, that the tenant or concessionaire take actions relating to matters within the scope of the contract that facilitate the agency's compliance with this order;

(g) provide reports on agency implementation of this order to the Chairman of the Council on such schedule and in such format as the Chairman of the Council may require; and

(h) provide information and assistance to the Director of the Office of Management and Budget, the Chairman of the Council, and the Federal Environmental Executive.

Sec. 4. *Additional Duties of the Chairman of the Council on Environmental Quality.* In implementing the policy set forth in section 1 of this order, the Chairman of the Council on Environmental Quality:

(a) (i) shall establish a Steering Committee on Strengthening Federal Environmental, Energy, and Transportation Management to advise the Director of the Office of Management and Budget and the Chairman of the Council on the performance of their functions under this order that shall consist exclusively of (A) the Federal Environmental Executive, who shall chair, convene and preside at meetings of, determine the agenda of, and direct the work of, the Steering Committee, and (B) the senior officials designated under section 3(d)(i) of this order, and (ii) may establish subcommittees of the Steering Committee, to assist the Steering Committee in developing the advice of the Steering Committee on particular subjects;

(b) may, after consultation with the Director of the Office of Management and Budget and the Steering Committee, issue instructions to implement this order, other than instructions within the authority of the Director to issue under section 5 of this order; and

(c) shall administer a presidential leadership award program to recognize exceptional and outstanding environmental, energy, or transportation management performance and excellence in agency efforts to implement this order.

Sec. 5. *Duties of the Director of the Office of Management and Budget.* In implementing the policy set forth in section 1 of this order, the Director of the Office of Management and Budget shall, after consultation with the Chairman of the Council and the Steering Committee, issue instructions to the heads of agencies concerning:

(a) periodic evaluation of agency implementation of this order;

(b) budget and appropriations matters relating to implementation of this order;

(c) implementation of section 2(d) of this order; and

(d) amendments of the Federal Acquisition Regulation as necessary to implement this order.

Sec. 6. *Duties of the Federal Environmental Executive.* A Federal Environmental Executive designated by the President shall head the Office of the Federal Environmental Executive, which shall be maintained in the Environmental Protection Agency for funding and administrative purposes. In implementing the policy set forth in section 1 of this order, the Federal Environmental Executive shall:

(a) monitor, and advise the Chairman of the Council on, performance by agencies of functions assigned by sections 2 and 3 of this order;

(b) submit a report to the President, through the Chairman of the Council, not less often than once every 2 years, on the activities of agencies to implement this order; and

(c) advise the Chairman of the Council on the Chairman's exercise of authority granted by subsection 4(c) of this order.

Sec. 7. *Limitations.* (a) This order shall apply to an agency with respect to the activities, personnel, resources, and facilities of the agency that are located within the United States. The head of an agency may provide that this order shall apply in whole or in part with respect to the activities, personnel, resources, and facilities of the agency that are not located within the United States, if the head of the agency determines that such application is in the interest of the United States.

(b) The head of an agency shall manage activities, personnel, resources, and facilities of the agency that are not located within the United States, and with respect to which the head of the agency has not made a determination under subsection (a) of this section, in a manner consistent with the policy set forth in section 1 of this order to the extent the head of the agency determines practicable.

Sec. 8. Exemption Authority. (a) The Director of National Intelligence may exempt an intelligence activity of the United States, and related personnel, resources, and facilities, from the provisions of this order, other than this subsection and section 10, to the extent the Director determines necessary to protect intelligence sources and methods from unauthorized disclosure.

(b) The head of an agency may exempt law enforcement activities of that agency, and related personnel, resources, and facilities, from the provisions of this order, other than this subsection and section 10, to the extent the head of an agency determines necessary to protect undercover operations from unauthorized disclosure.

(c) (i) The head of an agency may exempt law enforcement, protective, emergency response, or military tactical vehicle fleets of that agency from the provisions of this order, other than this subsection and section 10.

(ii) Heads of agencies shall manage fleets to which paragraph (i) of this subsection refers in a manner consistent with the policy set forth in section 1 of this order to the extent they determine practicable.

(d) The head of an agency may submit to the President, through the Chairman of the Council, a request for an exemption of an agency activity, and related personnel, resources, and facilities, from this order.

Sec. 9. Definitions. As used in this order:

(a) "agency" means an executive agency as defined in section 105 of title 5, United States Code, excluding the Government Accountability Office;

(b) "Chairman of the Council" means the Chairman of the Council on Environmental Quality, including in the Chairman's capacity as Director of the Office of Environmental Quality;

(c) "Council" means the Council on Environmental Quality;

(d) "environmental" means environmental aspects of internal agency operations and activities, including those environmental aspects related to energy and transportation functions;

(e) "greenhouse gases" means carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride;

(f) "life-cycle cost-effective" means the life-cycle costs of a product, project, or measure are estimated to be equal to or less than the base case (i.e., current or standard practice or product);

(g) "new renewable sources" means sources of renewable energy placed into service after January 1, 1999;

(h) "renewable energy" means energy produced by solar, wind, biomass, landfill gas, ocean (including tidal, wave, current and thermal), geothermal, municipal solid waste, or new hydroelectric generation capacity achieved from increased efficiency or additions of new capacity at an existing hydroelectric project;

(i) "energy intensity" means energy consumption per square foot of building space, including industrial or laboratory facilities;

(j) "Steering Committee" means the Steering Committee on Strengthening Federal Environmental, Energy, and Transportation Management established under subsection 4(b) of this order;

(k) "sustainable" means to create and maintain conditions, under which humans and nature can exist in productive harmony, that permit fulfilling

the social, economic, and other requirements of present and future generations of Americans; and

(l) "United States" when used in a geographical sense, means the fifty states, the District of Columbia, the Commonwealth of Puerto Rico, Guam, American Samoa, the United States Virgin Islands, and the Northern Mariana Islands, and associated territorial waters and airspace.

Sec. 10. General Provisions. (a) This order shall be implemented in a manner consistent with applicable law and subject to the availability of appropriations.

(b) Nothing in this order shall be construed to impair or otherwise affect the functions of the Director of the Office of Management and Budget relating to budget, administrative, or legislative proposals.

(c) This order is intended only to improve the internal management of the Federal Government and is not intended to, and does not, create any right or benefit, substantive or procedural, enforceable at law or in equity by a party against the United States, its departments, agencies, instrumentalities, entities, officers, employees or agents, or any other person.

Sec. 11. Revocations; Conforming Provisions. (a) The following are revoked:

(i) Executive Order 13101 of September 14, 1998;

(ii) Executive Order 13123 of June 3, 1999;

(iii) Executive Order 13134 of August 12, 1999, as amended;

(iv) Executive Order 13148 of April 21, 2000; and

(v) Executive Order 13149 of April 21, 2000.

(b) In light of subsection 317(e) of the National Defense Authorization Act for Fiscal Year 2002 (Public Law 107-107), not later than January 1 of each year through and including 2010, the Secretary of Defense shall submit to the Senate and the House of Representatives a report regarding progress made toward achieving the energy efficiency goals of the Department of Defense.

(c) Section 3(b)(vi) of Executive Order 13327 of February 4, 2004, is amended by striking "Executive Order 13148 of April 21, 2000" and inserting in lieu thereof "other executive orders".



THE WHITE HOUSE,
January 24, 2007.

**INSTRUCTIONS FOR IMPLEMENTING EXECUTIVE
ORDER 13423**

**“Strengthening Federal Environmental, Energy, and
Transportation Management”**

March 26, 2007

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I. Introduction

The Federal government has made significant progress in improving environmental and energy performance through a series of executive orders, Memoranda of Understanding, and other guidance. Executive Order 13423 (E.O.), *Strengthening Federal Environmental, Energy, and Transportation Management*, intends to build on that body of work and success by integrating and updating prior practices and requirements into a cohesive, strategic approach to further ensure enhanced performance and compliance with statutory and other legal requirements.

Section 2 of the E.O. directs Federal agencies to implement sustainable practices for:

- Energy efficiency and reductions in greenhouse gas emissions.
- Use of renewable energy.
- Reduction in water consumption intensity.
- Acquisition of green products and services.
- Pollution prevention, including reduction or elimination of the use of toxic and hazardous chemicals and materials.
- Cost-effective waste prevention and recycling programs.
- Increased diversion of solid waste.
- Sustainable design/high performance buildings.
- Vehicle fleet management, including the use of alternative fuel vehicles and alternative fuels and the further reduction of petroleum consumption.
- Electronics stewardship.

A. Purpose

The purpose of this document is to define agency requirements for implementing E.O. 13423 and to define broad strategies for achieving them. This document is the first of such E.O. implementing instructions. In order to ensure effective and efficient implementation, and to meet the goals and objectives of the E.O., it is mandatory that executive departments and agencies implement the activities described in these instructions in accordance with Sections 1, 2, 3, and 4(b) of the E.O.

B. Authority

These instructions are issued under the authority of Section 4(b) of the E.O. This section authorizes the Chairman of the Council on Environmental Quality (CEQ) to issue instructions on implementing the E.O. after consultation with the Director of the Office of Management and Budget (OMB) and the interagency Steering Committee.

C. Organization and Oversight

The organizational structure of the entities established to coordinate and oversee implementation of E.O. 13423 is shown in Figure 1. The organizational structure as well as the roles and responsibilities of each entity are described below.

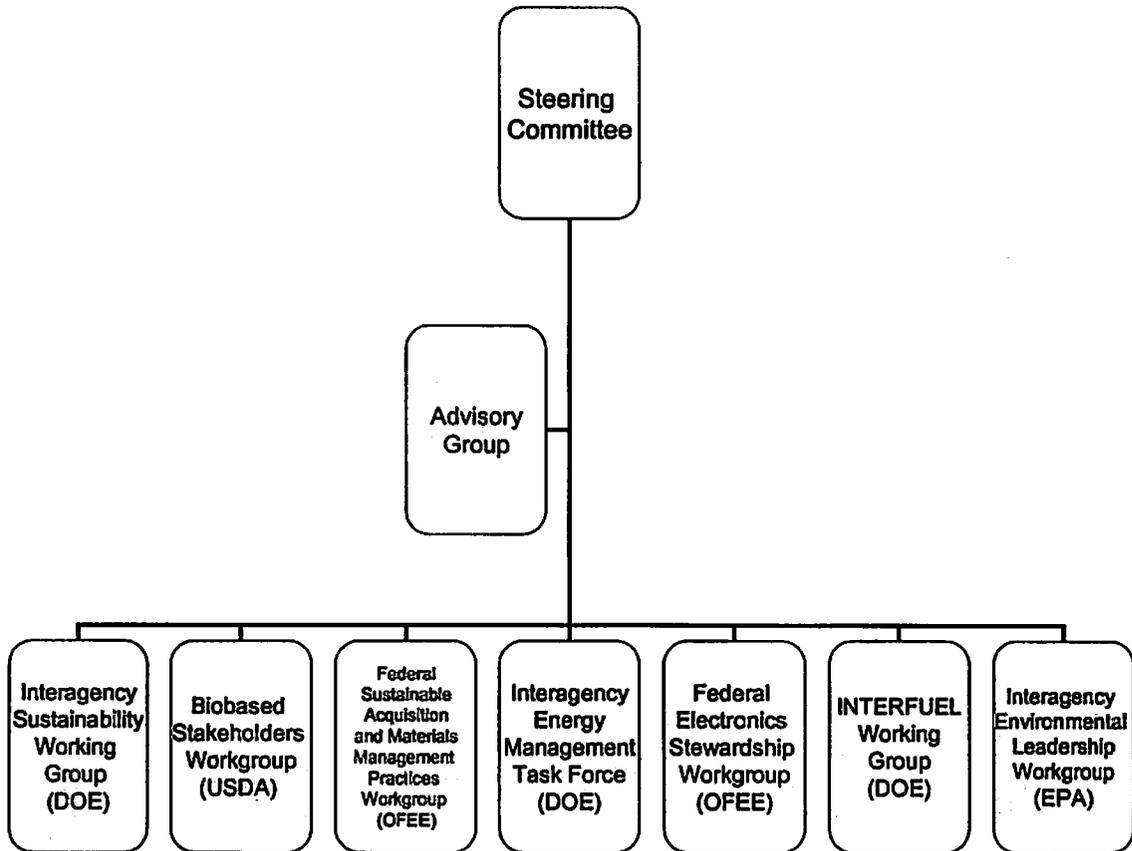


Figure 1. Organization of entities established to implement E.O. 13423. The agency chair of each Working Group is shown in parentheses.

(1) Steering Committee. In accordance with the E.O., agencies will designate Senior Officials, who will comprise the Steering Committee. The Steering Committee will be responsible and accountable for implementation of the E.O. and these instructions. Semiannual meetings will be held, usually in February and August. Additional meetings of the Steering Committee may be called by the Federal Environmental Executive (FEE), as appropriate.

(2) E.O. Advisory Group. This group shall consist of Office of the Federal Environmental Executive (OFEE), OMB, Department of Energy (DOE), and Environmental Protection Agency (EPA) staff and others as appropriate as determined by the Chairman of CEQ. The Advisory Group will support the Steering Committee by scheduling meetings, providing logistical support, coordinating approval of guidance documents, conducting assessments of agency implementation, and ensuring cooperation and coordination between workgroups. The Advisory Group may recommend the establishment of additional workgroups to assist and advise the FEE and the Steering

Committee as appropriate. The Advisory Group shall coordinate reporting requirements and assist the FEE to ensure government-wide implementation of the requirements of the E.O.

(3) Workgroups. OFEE, DOE's Federal Energy Management Program (FEMP), EPA, and the U.S. Department of Agriculture (USDA) shall continue to convene the following sustainable practice area workgroups established to implement statutory requirements and prior executive orders with respect to the sustainable practices addressed in E.O. 13423.

- Interagency Sustainability Working Group – chaired by FEMP
- Interagency Energy Management Task Force – chaired by FEMP
- INTERFUEL – chaired by FEMP
- Federal Sustainable Acquisition and Materials Management Practices Workgroup (formerly the E.O. 13101 Interagency Advisory Group) – chaired by OFEE
- Federal Electronics Stewardship Working Group – chaired by OFEE
- Interagency Environmental Leadership Workgroup – chaired by EPA
- Biobased Stakeholders Workgroup – chaired by USDA

Each workgroup shall provide a forum for information exchange and coordinate interagency efforts to promote agency implementation of one or more goals of E.O. 13423. Each workgroup will help to develop policies, guidance, reporting metrics, and other documents and tools required by the E.O. In addition, workgroups may establish subcommittees to make recommendations for addressing E.O. implementation issues identified by the workgroups.

The workgroups shall be considered to be subcommittees of the Steering Committee established by E.O. 13423. From time to time, the CEQ Chair or the Director of OMB may establish additional workgroups to assist and advise the FEE and the Steering Committee.

The agency chairing each workgroup shall ultimately be responsible for issuing guidance and other documents as directed by these instructions or as appropriate. Agency chairs of each workgroup shall consult with workgroup member agencies before issuing guidance documents.

The FEE and OMB, with assistance from the Advisory Group, will ensure that there is no redundancy or conflicting activities or guidance from the workgroups and any new groups created under the E.O., coordinate reporting requirements, and ensure government-wide implementation of the requirements of the E.O.

Chapters II – XII identify the workgroup correlating with environmental management systems and each sustainable practice area.

D. Overarching Policy and Directives

E.O. 13423, Section 1: It is the policy of the United States that Federal agencies conduct their environmental, transportation, and energy-related activities under the law in support of their respective missions in an environmentally, economically and fiscally sound, integrated, continuously improving, efficient, and sustainable manner.

In implementing the policy, goals, and objectives of E.O. 13423, agencies shall apply the following overarching directives:

(1) Environmental management systems. E.O. 13423 directs Federal agencies to implement environmental management systems (EMS) at all appropriate organizational levels to ensure the use of EMS as the primary management approach for addressing environmental aspects of internal agency operations and activities, including the environmental aspects of energy and transportation functions; establishment of agency objectives and targets to ensure implementation of the E.O.; and collection, analysis, and reporting of information to measure performance in the implementation of the E.O.

(2) Environmental compliance. Compliance with environmental and energy legal and regulatory requirements is a fundamental responsibility of Federal agencies and Federal employees at all levels. Federal facilities must strive to be good neighbors to the citizens they serve by adhering to applicable environmental protection and energy conservation laws and regulations.

(3) Life-cycle costs. Each agency shall consider life-cycle costs and savings in planning and making determinations about investments in all capital assets, services, and procurements, which will lower the government's costs, achieve sustainable design principles, reduce energy and water consumption, and reduce the environmental impact/footprint of the government's operations as it implements its primary mission and improves the quality of service and effectiveness of government. In some cases, good evaluation of life-cycle costs may result in a higher up-front cost with significantly lower maintenance costs, or longer life. Or, an agency may prefer to choose an option with a higher cost that will reduce its footprint.

(4) Performance evaluations. In order to ensure accountability, each agency shall include successful implementation of the E.O. in performance standards and performance evaluations (or equivalent) of senior agency officials designated as responsible under E.O. 13423, and relevant agency staff, such as facility managers, environmental and energy program managers, vehicle fleet managers, contracting officials, and others as appropriate.

(5) Award programs. Each agency should employ incentive and award programs to reward exceptional individual and team performance in implementing the goals of the E.O.

(6) Use of cross-functional teams. Each agency should designate a cross-functional support team or teams consisting of procurement, legal, budget, facility and energy management, vehicle fleet management, environmental management, technical support and others as appropriate to expedite implementation of this order and collaborate with other agencies.

II. Environmental Management Systems

E.O. 13423, Sec. 3(b), excerpted:

In implementing the policy set forth in section 1 of this order, the head of each agency shall:

(b) implement, within the agency, environmental management systems (EMS) at all appropriate organizational levels to ensure (i) use of EMS as the primary management approach for addressing the environmental aspects of internal agency operations and activities, including environmental aspects of energy and transportation functions, (ii) establishment of agency objectives and targets to ensure implementation of this order, and (iii) collection, analysis, and reporting of information to measure performance in the implementation of this order;

Technical Lead: EPA

Workgroup: Interagency Environmental Leadership Workgroup

An EMS is a tool used to pursue policies and goals established by an organization by properly managing its operations and activities. It is not a stand-alone environmental program or a data management program. In other words, the management system is a framework within which existing and new organizational responsibilities, programs, and activities are linked. The management system model of “Plan, Do, Check, Act” provides rigor to existing operations and programs to further ensure continual improvement.

When properly implemented, a management system enables an organization to clearly identify and establish goals, develop and implement plans to meet the goals, determine measurable progress towards the goals, and make improvements to ensure continual improvement. Where programs to support the sustainable practices related to environmental-, transportation-, or energy-related activities already exist within an organization, they are not replaced or overtaken by the management system but contribute to and, are enhanced by, the system. For example, leadership, management, and operations addressing a specific program can remain, except the management system now recognizes that program as one contributing towards meeting the organizational goals and as a source of information for overall reporting.

The true benefit of the management system model is that it ensures existing or new programs are closely linked to the organization’s environmental and energy footprint and legal and other requirements. The management system helps to ensure that efforts are properly deployed in regard to training, monitoring and measurement, and reporting. The management system also ensures that senior management plays an active role in evaluating status and progress and makes decisions towards the commitment to continual improvement.

A. Use of Environmental Management Systems

Each agency shall, at all appropriate organizational levels, including agency, sub-agency, bureau, service, command, and/or facility, develop, implement, and maintain an EMS to

be used to identify and address agency environmental, transportation, and energy issues. The EMS shall reflect the EMS elements and framework found in the ISO 14001:2004(E) International Standard or equivalent. The EMS objectives shall include the goals identified in Section 2 of the E.O.

(1) Management framework. The management system will serve as the management framework under which agencies and their facilities or organizations identify, manage, and improve the sustainable practices identified in Section 2 of the E.O. and identify and collect performance measurement information to address the reporting requirements of Section 3(g) of the E.O. EMS also shall be used to support compliance with environmental and energy regulations, to enable the prevention of pollution and efficient energy management, and to support other objectives identified by the organization.

(2) Review and update. Once implemented, an EMS shall be reviewed and updated annually or more frequently, as appropriate, by senior leadership accountable for implementation of that EMS. This annual management review does not require a conformance determination as set forth in section II.C below.

(3) External communication. To facilitate communication between Federal agencies, their stakeholders, and their neighbors, as part of the EMS, agencies shall commit to proactive communications with interested parties. EMSs should support appropriate inclusion of local participation, consistent with the objectives of E.O. 13352 of August, 2004, *Facilitation of Cooperative Conservation*.¹

B. Applicability and Schedule

(1) Appropriate organizational level(s) for EMS. Where an agency's environmental issues, including the goals identified in section 2 of the E.O., are best addressed in management of the operational elements of its facilities or organizations, and/or where pursuit of sustainable practices is best carried out at the facility or organizational level, the agency shall ensure that all appropriate facilities or organizations develop, implement, and maintain an EMS.

Where an agency's environmental issues, including the goals identified in the E.O., are primarily represented in the administrative, decision-making, and/or business infrastructure actions of that agency or its component organizations, and/or where pursuit of sustainable practices is best carried out at the agency or component level, the agency shall develop, implement, and maintain an EMS at that level to respond to those issues and opportunities. Where appropriate, agencies may develop, implement, and maintain an EMS at both the organizational or facility level and at the agency or component level.

(2) Tenant, contractor, and concessionaire activities. Where tenant, contractor, and concessionaire activities affect an agency's environmental, transportation, or energy issues, those activities shall be addressed in the development, implementation, and

¹ <http://cooperativeconservation.gov>

maintenance of the EMS. Requirements shall be included in all appropriate contracts to ensure that the contractors' roles and responsibilities under the EMS are properly addressed. Where an agency owns or manages public lands on which non-governmental entities are present and whose activities are permitted, licensed, or otherwise authorized or regulated, that agency shall, at a minimum, consider the environmental impacts of such activities in its EMS.

(3) Schedules. Facilities previously identified under E.O. 13148 as "appropriate facilities" and already underway with implementation as of the date of the E.O., shall ensure their EMS is fully implemented by December of 2008 and maintained as specified in this chapter of the instructions. Agencies may revise schedules relative to this deadline after consultation with OFEE, specifically in regard to the definition of "fully implemented" requiring an external audit.

Agencies developing additional EMSs as a result of E.O. 13423 and these implementing instructions shall establish an EMS implementation schedule, in consultation with OFEE.

C. Declaration of Conformance

(1) Full implementation. For the purpose of conformance to E.O. 13423, an EMS shall be considered fully implemented when (1) it has been the subject of a formal audit by a qualified party outside the control or scope of the EMS, (2) audit findings have been recognized by the appropriate level of the agency implementing the EMS, and (3) the appropriate senior manager accountable for implementation of the EMS has declared conformance to EMS requirements.

(2) Audits. Once conformance has been declared, the EMS shall then be audited by a qualified party outside of the control or scope of the EMS at least every three years from the date of the initial declaration. Conformance declaration shall be renewed as appropriate based on agency guidance.

D. Guidance

EPA, in consultation with OFEE and DOE, will develop guidance on incorporating the new E.O. goals, including the multi-year energy and transportation goals, into EMSs. In addition, EPA, through the Interagency Environmental Leadership Workgroup, will develop additional EMS guidance from time to time, as needed.

Agencies shall continue their EMS development, implementation, and improvement activities and shall not delay in actively addressing the goals set forth in Section 2 of the E.O. pending issuance of the additional EPA guidance.

III. Compliance Management Plans

E.O. 13423, Sec. 3(c), excerpted:

In implementing the policy set forth in section 1 of this order, the head of each agency shall:

(c) establish within the agency programs for ... (ii) environmental compliance review and audit....

Lead Agency: EPA

A. Applicability

Agencies where no EMS exists shall develop and implement compliance management plans, at all appropriate organizational levels and in accordance with the schedule to be agreed upon between the agency and OFEE. The plans shall be based on the recommendations outlined in the *Environmental Compliance Management Improvement Initiative*, dated October 6, 2004, issued by CEQ and OFEE as directed by the OMB Deputy Director of Management and the President's Management Council. Where an EMS exists at the appropriate organization level, the elements of the Compliance Management Plan shall be part of the EMS, and a separate compliance management plan is not required.

B. Contents

Each compliance management plan shall formally include the following elements at the appropriate level:

- A clear, sustained, and up-to-date commitment by senior leadership to achieve and maintain environmental compliance. This commitment shall be integrated into agency strategic plans and agency policies.
- Clearly articulated roles and responsibilities related to environmental performance at all levels to ensure accountability for less than desired environmental performance.
- Implementation of an environmental compliance review and audit program that identifies compliance needs and possible root cause of non-compliance.
- Integration of compliance management system information and resource allocation procedures to ensure that audit findings and possible non-compliance root causes are tracked and addressed, including allocation of funding.

IV. Reporting

*E.O. 13423, sec. 3(g): In implementing the policy set forth in section 1 of this order, the head of each agency shall:
(g) provide reports on agency implementation of this order to the Chairman of the Council on such schedule and in such format as the Chairman of the Council may require.*

Existing reporting procedures in place as of January 24, 2007 shall continue until and unless superseded pursuant to sections 3(g) and 4 of the E.O. This includes statutorily required reporting, such as annual reporting to DOE on facility and fleet energy use, which shall continue in accordance with the established reporting deadlines for those reports.

Beginning in 2009, and annually thereafter, agencies and technical leads shall report to CEQ on actions and activities taken during the preceding fiscal year to implement the E.O.

Prior to FY 2008, OFEE and OMB, in consultation with DOE, EPA, USDA, and any other agencies responsible for current statutory and prior executive order reports, will meet to streamline, consolidate, and simplify reporting requirements and address metrics and other elements relevant to the E.O. OFEE and OMB will also coordinate and ensure that reporting requirements for this order do not create redundant or conflicting requirements with E.O. 13352 of August 26, 2004 and E.O. 13327 of February 4, 2004.

V. Training

*E.O. 13423, sec. 3(c), excerpted: In implementing the policy set forth in section 1 of this order, the head of each agency shall:
Establish within the agency programs for (i) environmental management training....*

A. Required Training

Each agency shall ensure that all personnel whose actions are affected by the E.O. receive initial awareness training as well as necessary refresher training on the goals of the E.O. and any related instructions, including the environmental impacts of the employees' actions.

B. Scope and Sources

Each agency shall develop or purchase, and deliver, environmental management training to its employees. Each agency shall identify the specific training needs of individual employees, which shall be a function of operations and responsibilities related to the E.O. goals and other legal requirements. The training shall address the role of individual employees in ensuring the agency pursues the policy, goals, and objectives set forth in the E.O. and emphasize the benefit of improved environmental, energy, and transportation management to the mission of the organization. Training shall be provided to employees and others, such as contractors, as appropriate, at all levels, and repeated as necessary to ensure improved awareness.

Training can be, but is not limited to, agency-developed training, training provided by a third party such as a contractor or non-profit organization, training provided by another agency, Defense Acquisition University or Federal Acquisition Institute courses, or educational sessions provided during relevant conferences such as the annual Federal environmental symposium, annual GSA Expo, DoD's annual Joint Services Environmental Management conference, FedFleet, or the annual Energy conference.

VI. Energy and Water Management

E.O. 13423, sec. 2(a), (b), and (c): In implementing the policy set forth in section 1 of this order, the head of each agency shall:

(a) improve energy efficiency and reduce greenhouse gas emissions of the agency, through reduction of energy intensity by (i) 3 percent annually through the end of FY 2015, or (ii) 30 percent by the end of FY 2015, relative to the baseline of the agency's energy use in FY 2003;

(b) ensure that (i) at least half of the statutorily required renewable energy consumed by the agency in a fiscal year comes from new renewable sources, and (ii) to the extent feasible, the agency implements renewable energy generation projects on agency property for agency use;

(c) beginning in FY 2008, reduce water consumption intensity, relative to the baseline of the agency's water consumption in FY 2007, through life-cycle cost-effective measures by 2 percent annually through the end of FY 2015 or 16 percent by the end of FY 2015.

Sec. 3(a), excerpt: In implementing the policy set forth in section 1 of this order, the head of each agency shall:

(a) implement within the agency sustainable practices for (i) energy efficiency, greenhouse emissions avoidance or reduction, and petroleum products use reduction, (ii) renewable energy, including bioenergy, (iii) water conservation....

Technical Leads: DOE and EPA

Workgroup: Interagency Energy Management Task Force

A. Strategies and Tools

Each agency shall use a variety of energy and water management strategies and tools to meet the goals of the order. Strategies and tools include, but are not limited to, the following:

(1) Funding. The following instruments should be utilized to the maximum extent practical to implement energy efficiency management projects, water management projects, and renewable energy projects with long- and short-term payback periods that can be bundled into life-cycle cost effective contracts. Appropriated funds may be combined with Energy Savings Performance Contracts (ESPCs) and Utility Energy Service Contracts (UESCs) to leverage government funding and optimize project scope and reductions in energy use and cost of facility operations. Renewable energy measures shall be considered in each ESPC or UESC proposal and be implemented where practical.

- **ESPCs.** ESPCs facilitate large projects with long- and short-term payback periods to be bundled into life-cycle cost effective performance contracts.
- **UESCs.** UESCs enable projects in States where the utility companies are permitted and encouraged to perform energy savings services, especially in peak load constrained regions of the country.

- **Direct Appropriated Funding.** Appropriations should be requested in annual budget requests and prioritized for application in projects or measures that do not generate savings sufficient to support private sector financing.
- **Enhanced Use Leasing.** This tool can be utilized for large or long-term cogeneration projects and State projects where appropriate.
- **Utility Rebates.** Rebates should be utilized at every opportunity to enhance energy reduction.
- **Retention of Funds.** Full retention of energy and water cost savings by all agencies is authorized by EPCA 2005. Agencies are encouraged to retain at least 50 percent of these savings for reinvestment in energy or water conservation and sustainable building requirements.

(2) Distributed Generation. Where life-cycle cost effective, each agency shall implement distributed generation systems in new construction or retrofit projects, including renewable systems such as solar electric, solar outdoor lighting, small wind turbines, as well as other generation systems such as fuel cell, cogeneration, or highly efficient alternatives. In addition, agencies are encouraged to use distributed generation systems when a substantial contribution is made toward enhancing energy reliability or security.

(3) Metering. To the maximum extent practicable, agencies should install metering devices that measure consumption of potable water, electricity, and thermal energy in Federal buildings and other facilities and grounds. Data collected shall be incorporated into Federal tracking systems and be made available to Federal facility managers.

(4) Auditing. Agencies should conduct energy and water audits of at least 10 percent of facility square footage annually and conduct new audits at least every 10 years, thereafter. This audit requirement can be met by audits done in conjunction with ESPC or UESC projects.

(5) Energy Star® Tools. For applicable facilities, agencies should meet Energy Star® Building criteria, and complete the Energy Star® benchmarking tool as part of comprehensive facility audits. Agencies may use the Energy Star Portfolio Manager rating tool to conduct audits and track energy and water use in all facilities.

(6) Labs21. Agencies should explore efficiency opportunities in applicable facilities and programs such as the Labs21 partnership to encourage the development of sustainable, high performance, and low-energy laboratories nationwide.

(7) Energy Purchasing. Agencies should purchase electricity and thermal energy from sources that use high efficiency and low-carbon generating technologies in order to reduce greenhouse gas intensity to the extent possible.

(8) Water Efficient Products. Where applicable, agencies should purchase WaterSense (SM) labeled products and choose irrigation contractors who are certified through a WaterSense labeled program.²

B. Exclusions

The goals set forth in section 2(a) and 2(b) of E.O. 13423 are subject to the exclusions set forth in Section 102(c), (d), and (e) of EPAct 2005 and the DOE Guidelines Establishing Criteria for Excluding Buildings from the Energy Performance Requirements of Section 543 of the National Energy Conservation Policy Act, as amended by EPAct 2005, issued on January 27, 2006.

C. Additional Guidance

(1) Energy efficiency. Within 90 days of issuance of these instructions, DOE, in consultation with the Interagency Energy Management Task Force, shall issue guidance on:

- The renewable energy goal and use of renewable energy credits.
- Use of alternatively financed projects such as ESPCs and UESCs.
- Use of and investment in renewable energy generation.
- Calculating and validating funds available for retention in accordance with Section 102(e) of EPAct 2005.

DOE guidance should clarify that each agency shall begin reporting performance toward the reduction goal for FY 2007, which for that year requires a 6 percent reduction, relative to the FY 2003 baseline, in order to be considered on track to meet 30 percent reduction goal in 2015.

(2) Life-cycle costs. Guidance on measuring life-cycle costs is provided in 10 CFR 436, Subpart A. Additional guidance on measuring cost-effectiveness is provided in 10 CFR 436.18(a), (b), and (c), 436.20, and 436.21.

(3) Water conservation. By January 1, 2009, EPA, in coordination with DOE, shall issue guidance with respect to a baseline for potable, landscape, and other water consumption intensity and meeting the water conservation goal of Section 2(c) of the E.O.

² EPA's WaterSense program is a voluntary public-private partnership that identifies and promotes high-performance products and programs that help preserve the nation's water supply. More information can be found at www.epa.gov/watersense.

VII. Acquisition (Green Product Purchasing)

E.O. 13423, sec. 2(d) and (h), excerpted: In implementing the policy set forth in section 1 of this order, the head of each agency shall:

(d) require in agency acquisitions of goods and services (i) use of sustainable environmental practices, including acquisition of biobased, environmentally preferable, energy-efficient, water-efficient, and recycled-content products, and (ii) use of paper of at least 30 percent postconsumer fiber content;

(h) ensure that the agency (i) when acquiring an electronic product to meet its requirements, meets at least 95 percent of those requirements with an Electronic Product Environmental Assessment Tool (EPEAT)-registered electronic product, unless there is no EPEAT standard for such product....

Sec. 3(a), excerpted, (e), and (f): In implementing the policy set forth in section 1 of this order, the head of each agency shall:

(a) implement within the agency sustainable practices for... (iv) acquisition

(e) ensure that contracts entered into after the date of this order for contractor operation of government-owned facilities or vehicles require the contractor to comply with the provisions of this order with respect to such facilities or vehicles to the same extent as the agency would be required to comply if the agency operated the facilities or vehicles;

(f) ensure that agreements, permits, leases, licenses, or other legally-binding obligations between the agency and a tenant or concessionaire entered into after the date of this order require, to the extent the head of the agency determines appropriate, that the tenant or concessionaire take actions relating to matters within the scope of the contract that facilitate the agency's compliance with this order.

*Technical Lead: Office of Federal Procurement Policy, EPA, DOE, USDA
Workgroup: Federal Sustainable Acquisition and Materials Management
Practices Workgroup*

A. Office of Federal Procurement Policy Guidance

Within 90 days of the issuance of the implementing instructions, the Office of Federal Procurement Policy will issue guidance directed to the acquisition community on green product procurement policies and strategies for compliance with the acquisition directives of the E.O. that are coordinated and consistent with other Federal procurement statutes.

B. Federal Green Purchasing Program

Each agency shall give preference in their procurement and acquisition programs to the purchase of:

- Recycled content products designated in EPA's Comprehensive Procurement Guidelines.

- Energy Star® products identified by DOE and EPA, as well as FEMP-designated energy-efficient products.
- Water-efficient products, including those meeting EPA’s WaterSense standards.
- Energy from renewable sources.
- Biobased products designated by the U.S. Department of Agriculture in the BioPreferred program.
- Environmentally preferable products and services, including EPEAT-registered electronic products.
- Alternative fuel vehicles and alternative fuels required by EPAct.
- Products with low or no toxic or hazardous constituents, consistent with section VIII.A of these instructions.
- Non-ozone depleting substances, as identified in EPA’s Significant New Alternatives Program.

Each agency shall incorporate requirements to supply or use these products for all types of acquisitions, including but not limited to service contracts, purchases at or below the micro-purchase threshold, and those made with government purchase cards. All new contracts for facility design and construction, transportation, janitorial services, and other operations and maintenance, shall ensure that these requirements are included, monitored, and met.

C. Green Products Standards, Coordination, and Review

(1) Minimum Content Standard for Printing and Writing Paper. Each agency shall continue to use the following minimum content standards when purchasing printing and writing papers, including office paper products, or support services that include the supply of written documents:

- 30 percent postconsumer fiber.
- 20 percent postconsumer fiber, IF papers containing 30 percent postconsumer fiber are not reasonably available, do not meet reasonable performance requirements, or are only available at an unreasonable price.

EPA shall review the recommended content levels for printing and writing papers in the existing Paper Products Recovered Materials Advisory Notice and adjust the recommendations, where appropriate. EPA shall report its decisions to the FEE.

(2) Review of Comprehensive Procurement Guidelines. EPA shall review existing product designations in the Comprehensive Procurement Guidelines for effectiveness, obsolescence, and consistency with the biobased products designation program, environmentally preferable purchasing program, and Energy Star® and FEMP-designated energy efficient products program. EPA shall delete those designations that are ineffective in meeting the objectives of the Resource Conservation and Recovery Act section 6002 or are obsolete due to market changes.

(3) Environmentally Preferable Products and Services. Each agency shall purchase environmentally preferable products and services, using EPA’s Guidance on the

Acquisition of Environmentally Preferable Products and Services³. At a minimum, wherever possible, agencies shall purchase environmentally preferable janitorial products and services, building construction and renovation products and services, landscaping products and services, EPEAT-registered office electronic products, desktop office supplies, and meeting and conference services.

EPA will assist Federal agencies to buy environmentally preferable products and services by developing environmental performance criteria for products and services, providing technical assistance, and reviewing and updating the guidance periodically.

(4) Energy Efficient Standby Power Devices. When purchasing commercially available, off-the-shelf energy-consuming products, agencies shall purchase products that use no more than one watt of standby power as defined and measured by International Electrotechnical Commission (IEC) code 62301, or otherwise meet FEMP specifications for low standby power consumption. If FEMP has not specified a standby power level for a product category, agencies shall purchase products with the lowest standby power consumption available. Agencies shall adhere to these requirements, when life-cycle cost-effective and practicable, and where the relevant product's utility and performance are not compromised as a result.

When designating Energy Star® products, DOE and EPA shall require that such products also meet FEMP specifications for standby power. If FEMP has not specified a standby level for a product category under consideration for Energy Star® qualification, DOE and EPA shall designate that the product meet the lowest standby power level commercially available within the product category.

Agencies which procure electronic devices for resale, such as military exchanges, shall establish a policy which limits procurement and sale of items which do not meet FEMP specifications for low standby power.

D. Program Coordination, Guidance, and Models

(1) Coordination. In order to improve Federal stewardship efforts by promoting efficient and cost-effective Federal procurement of green products and services, EPA, DOE, and USDA shall coordinate their individual efforts to designate or identify green products and to provide guidance to Federal agencies for purchasing these products. The objective of such coordination efforts shall be to minimize conflicting green product designations or identifications while maximizing the goals and objectives of each of the green product programs and E.O. 13423. The following programs shall coordinate their efforts:

- Comprehensive Procurement Guidelines (EPA).
- Environmentally Preferable Purchasing (EPA).
- Energy Star (EPA and DOE).

³ For EPA's guidance, go to <http://www.epa.gov/epp/pubs/guidance/guidancepage.htm>. Guidance on specific products or product categories is found at <http://www.epa.gov/epp/pubs/products/products.htm>.

- FEMP-designated products and standby-power devices (DOE).
- Alternative Fuel Vehicles (DOE).
- BioPreferred (USDA).

(2) Guidance. Each of the programs listed in subsection (1) shall provide explicit guidance to Federal agencies for minimizing conflicts in program implementation or for meeting the requirements of multiple programs (e.g., Energy Star roofing materials containing recovered materials or biobased materials).

(3) Model Programs. EPA, DOE, and USDA shall create and maintain model programs for implementation of these programs and assist other agencies' implementation efforts through outreach, promotion, guidance, and technical assistance.

VIII. Pollution Prevention and Management of Toxic and Hazardous Materials

E.O. 13423, Sec. 2(e): In implementing the policy set forth in section 1 of this order, the head of each agency shall:

(e) ensure that the agency (i) reduces the quantity of toxic and hazardous chemicals and materials acquired, used, or disposed of by the agency, (ii) increases diversion of solid waste as appropriate, and (iii) maintains cost-effective waste prevention and recycling programs in its facilities.

Sec. 3(a), excerpted, (e), and (f): In implementing the policy set forth in section 1 of this order, the head of each agency shall:

(a) implement within the agency sustainable practices for... (v) pollution and waste prevention and recycling, (vi) reduction or elimination of acquisition and use of toxic or hazardous chemicals...

(e) ensure that contracts entered into after the date of this order for contractor operation of government-owned facilities or vehicles require the contractor to comply with the provisions of this order with respect to such facilities or vehicles to the same extent as the agency would be required to comply if the agency operated the facilities or vehicles;

(f) ensure that agreements, permits, leases, licenses, or other legally-binding obligations between the agency and a tenant or concessionaire entered into after the date of this order require, to the extent the head of the agency determines appropriate, that the tenant or concessionaire take actions relating to matters within the scope of the contract that facilitate the agency's compliance with this order.

Technical Lead: EPA

Workgroup: Interagency Environmental Leadership Workgroup

A. Goals and Plans for Toxic and Hazardous Chemicals

No later than January 24, 2008, each agency, at all appropriate organizational levels including appropriate facilities, organizations, and acquisition activities, shall develop written goals and support actions to identify and reduce the release and use of toxic and hazardous chemicals and materials, including toxic chemicals, hazardous substances, ozone-depleting substances (ODSs), and other pollutants that may result in significant harm to human health or the environment.

In identifying the list of toxic chemicals, hazardous substances, and other pollutants, each agency shall consider:

- Quantity of the chemical or material in use by the agency.
- Human and/or environmental toxicity of the chemical.
- Potential for human and/or environmental exposure to the chemical or material.

- Potential harm to the environment associated with the use or release of the chemical or material, including impacts to air quality, surface water, groundwater, soils/land, and climate systems.
- Persistence of the chemical in the environment.
- Availability of controls to manage identifiable risks.
- Impacts on mission capability and business costs.
- Existing environmental hazard lists such as priority chemicals identified by EPA's Resource Conservation Challenge, and any agency-specific toxic or hazardous chemicals lists.
- The available substitutes for ODSs identified by EPA's Significant New Alternatives Policy Program.
- Contaminants identified by the U.S. Geological Survey as part of its National Reconnaissance of Emerging Contaminants.⁴
- Where appropriate, regional- and watershed-based environmental improvement efforts such as the Chesapeake Bay Prioritized Chemicals of Concern Program, the Great Lakes Bi-national Strategy or local watershed efforts.

B. Ozone-Depleting Substances

(1) Alternatives. Each agency shall ensure that it maximizes the use of safe alternatives to ODSs, as approved by the EPA's Significant New Alternatives Policy (SNAP) program.

(2) Agency plans. Agency plans to replace ODSs should target cost effective reduction of environmental risk by eliminating the use of ODSs in new equipment and facilities and by phasing out ODS applications as the existing equipment using those substances reaches its expected service life. In developing ODS-related actions, agencies shall consider (1) maintaining equipment to prevent or fix leaks and (2) replacing leaking equipment when repair is no longer cost-effective or where it is life-cycle cost-effective to replace the equipment.

(3) Revision of personal property management policies. Each agency shall amend its personal property management policies and procedures to preclude the disposal of ODSs removed or reclaimed from its facilities or equipment, including disposal as part of a contract, trade, or donation, without prior coordination with the Department of Defense (DoD).

(4) Transfer to DoD. Where the recovered ODS is a critical requirement for DoD missions, the agency shall transfer the materials to DoD. DoD will bear the costs of such transfer.

⁴ The national reconnaissance is an on-going initiative to track contaminants commonly derived from wastewater sources and found to be present in the environment on a global scale. A list of target compounds identified as emerging contaminants can be found at <https://toxics.usgs.gov/regional/contaminants.html>.

C. Compliance with the Emergency Planning and Community Right-to-Know Act and the Pollution Prevention Act

(1) EPCRA reporting. As part of managing toxic and hazardous chemicals as required by sections 2(e)(i) and 3(a)(vi) of the E.O. and meeting the reporting requirements of section 3(g) of the E.O., each agency shall continue to comply with the provisions set forth in sections 301 through 313 of the Emergency Planning and Community Right-to-Know Act (EPCRA), section 6607 of the Pollution Prevention Act (PPA), all implementing regulations, and future amendments to these authorities, in light of applicable EPA guidance and without regard to the Standard Industrial Classification (SIC) or North American Industrial Classification System (NAICS) delineations. Each agency reporting under EPCRA section 313 shall do so using Internet reporting as provided in EPA's EPCRA section 313 guidance.

(2) Contractor reporting. In addition, as required in section 3(e) of the E.O., in contracts providing for contractor performance at Federal facilities, each agency shall include a requirement that the contractor provide the information needed by the Federal facility to comply with EPCRA, PPA, and the E.O.

IX. Solid Waste Diversion and Recycling

E.O. 13423, Sec. 2(e): In implementing the policy set forth in section 1 of this order, the head of each agency shall:

(e) ensure that the agency... (ii) increases diversion of solid waste as appropriate, and (iii) maintains cost-effective waste prevention and recycling programs in its facilities.

Sec. 3(a), excerpted, (e), and (f): In implementing the policy set forth in section 1 of this order, the head of each agency shall:

(a) implement within the agency sustainable practices for... (v) pollution and waste prevention and recycling...

(e) ensure that contracts entered into after the date of this order for contractor operation of government-owned facilities or vehicles require the contractor to comply with the provisions of this order with respect to such facilities or vehicles to the same extent as the agency would be required to comply if the agency operated the facilities or vehicles;

(f) ensure that agreements, permits, leases, licenses, or other legally-binding obligations between the agency and a tenant or concessionaire entered into after the date of this order require, to the extent the head of the agency determines appropriate, that the tenant or concessionaire take actions relating to matters within the scope of the contract that facilitate the agency's compliance with this order.

Technical Leads: OFEE, EPA, and GSA

Working Group: Federal Sustainable Acquisition and Materials Management Practices Workgroup

A. Waste Diversion Goals

By April 24, 2007, each agency shall establish and submit to the FEE solid waste diversion goals to be achieved by December 31, 2010. Where an agency has already established a goal and reported it to the FEE, it shall re-affirm to the FEE that the previous goal is still in effect. Agencies establishing a goal for the first time shall use FY 2000 as the base year.

B. Recycling Programs

(1) Establishment and maintenance of programs. Each agency shall maintain waste prevention and recycling programs in all of its facilities in the most cost-effective manner possible, and where appropriate, leased facilities and facilities managed by the General Services Administration (GSA). In GSA-managed facilities, GSA shall manage the recycling program, but agencies shall work with GSA to ensure that there is a recycling program that meets the agencies' needs.

(2) Recycling goals. At a minimum, each agency shall strive to meet the national 35 percent recycling goal established by EPA. Those agencies that have a 35 percent or higher recycling rate shall strive for annual continuous improvement. Each agency shall recycle materials to the maximum extent practicable, considering cost, cost avoidance, return on investment, and availability of markets.

(3) Compliance with applicable requirements. Recycling programs shall comply with applicable Federal, State, and local recycling requirements and can include cooperative programs with other Federal facilities, State or local agencies, or non-profit organizations.

(4) Facility recycling coordinators. Each agency also shall continue to designate recycling coordinators for each facility or installation that has a recycling program.

C. Retention of Recycling Revenue

The GSA Administrator shall continue the program that returns to agencies the proceeds from the sale of recycled materials.

(1) Uses of recycling revenue. Public Law 103-329, section 608, stipulates recycling revenues may be used for:

- Acquisition, waste prevention, and recycling programs, including any programs using the proceeds already in place prior to October 20, 1993.
- Other Federal agency environmental management programs including, but not limited to, those for developing and implementing hazardous waste management and pollution prevention.
- Other employee programs as authorized by law or as deemed appropriate by the head of the Federal agency (e.g., Federal building/agency day-care programs).

It should be noted that this public law does not change the way revenues from precious metals or excessed property are handled.

(2) Other uses of recycling revenue. An agency shall not use recycling revenues for uses other than those enumerated in section 608 of P.L. 103-329 without a written authorization, submitted to the FEE by the agency senior official, that there is a compelling need for such other use. The FEE shall consult with OMB on resolution of the authorization for the other uses.

(3) Programs in non-GSA managed facilities. Each agency in non-GSA managed facilities, to the extent permitted by law, shall continue to implement plans to incorporate incentives for recycling based on retention of the proceeds from the sale of recovered materials, including items requiring demilitarization prior to recycling.

X. Sustainable Design/High Performance Buildings

E.O. 13423, sec. 2(f): In implementing the policy set forth in section 1 of this order, the head of each agency shall:

(f) ensure that (i) new construction and major renovation of agency buildings comply with the Guiding Principles for Federal Leadership in High Performance and Sustainable Buildings set forth in the Federal Leadership in High Performance and Sustainable Buildings Memorandum of Understanding (2006), and (ii) 15 percent of the existing Federal capital asset building inventory of the agency as of the end of fiscal year 2015 incorporates the sustainable practices in the Guiding Principles.

Sec. 3(a), excerpted, (e), and (f): In implementing the policy set forth in section 1 of this order, the head of each agency shall:

(a) implement within the agency sustainable practices for... (vii) high performance construction, lease, operation, and maintenance of buildings

(e) ensure that contracts entered into after the date of this order for contractor operation of government-owned facilities or vehicles require the contractor to comply with the provisions of this order with respect to such facilities or vehicles to the same extent as the agency would be required to comply if the agency operated the facilities or vehicles;

(f) ensure that agreements, permits, leases, licenses, or other legally-binding obligations between the agency and a tenant or concessionaire entered into after the date of this order require, to the extent the head of the agency determines appropriate, that the tenant or concessionaire take actions relating to matters within the scope of the contract that facilitate the agency's compliance with this order.

*Technical Lead Agencies: DOE, GSA, EPA, and OFEE
Workgroup: Interagency Sustainability Working Group*

A. Objectives

Each agency shall pursue the following objectives regarding high performance buildings:

- Reduction in life-cycle cost of facilities' environmental and energy attributes.
- Improvement in energy efficiency, water conservation, and utilization of renewable energy.
- Provision of safe, healthy, and productive built environments.
- Promotion of sustainable environmental stewardship.

To accomplish these objectives, each agency shall locate, design, construct, maintain, and operate its buildings and facilities in a resource-efficient, sustainable, and economically viable manner, consistent with its mission.

B. Requirements

(1) New construction and renovation. Beginning with the FY 2007 funding cycle, when planning the funding and design for construction of buildings that meet the agency-defined capital asset threshold, each agency shall meet or exceed statutory goals and address each of the five *Guiding Principles for Federal Leadership in High Performance and Sustainable Buildings (Guiding Principles)*⁵. In order to apply the *Guiding Principles* to “in process” building projects, all business cases for new building construction or major renovations, developed per OMB A-11, Part 7, Section 300, shall incorporate the *Guiding Principles* to the greatest extent practicable. These requirements apply to construction of new Federal buildings; new, renegotiation, or extension of leases for Federal occupancy, or major renovation projects.⁶ Written justification must be provided to OFEE and OMB if an agency proposes not to comply.

(2) Existing buildings. In addition, by the end of 2015, agencies shall meet the 15 percent goal in E.O. 13423 section 2(f)(ii) for incorporating the sustainable practices in the *Guiding Principles* into their Federal capital asset building inventory. The 15 percent goal for existing buildings applies to an agency’s full building inventory as it exists in FY 2015, including any new buildings brought on line and excluding any unneeded assets disposed of or sold prior to 2015. Therefore, agencies should strongly consider incorporating sustainable practices into projects underway and selling or disposing of unneeded assets.

(3) High performance building plans. By July 1, 2007, and annually thereafter, each agency shall develop and submit to OMB and OFEE a plan for all new facilities and renovation projects to implement design, construction, and maintenance and operation practices in support of the sustainable design/high-performance buildings goals of the E.O. and statutory requirements. In addition, by January 1, 2008, each agency shall develop and submit to OMB and OFEE, using a template to be developed by OMB, an addendum to the plan addressing existing facilities’ maintenance and operation practices in support of the goals of the E.O. The plans shall address the following, at a minimum:

- Employment of integrated design principles, optimization of energy efficiency and use of renewable energy, protection and conservation of water, enhancement of indoor environmental quality, and reduction of environmental impacts of materials in accordance with the *Guiding Principles* and the other building and construction-related E.O. 13423 goals and instructions, including the use of EMS, energy efficiency, water conservation, the use of renewable energy, green purchasing, management of toxic and hazardous chemicals, pollution prevention, and recycling.
- An assessment of policy, criteria, contracts, and other areas, identifying gaps in the agency’s sustainable building program.
- Key action items and responsible parties.

⁵ The *Guiding Principles* are set forth in the 2006 *Federal Leadership in High Performance and Sustainable Buildings Memorandum of Understanding*.

⁶ The agency determines the threshold for major renovation projects.

- Target milestones for implementing the high priority sustainable building goals of the E.O.

The plan should be developed and implemented by a cross-functional support team, including designers; engineers; architects; energy, environmental, real property, and facility managers; and maintenance personnel; and acquisition and financial officers within each agency.

In addition, all government-owned military housing shall incorporate the sustainable design/high performance building goals/principles described in section 2(f) of the E.O.

C. High Performance Federal Buildings Database

Each agency shall report its success stories and lessons learned for at least one major building project per year into the High Performance Federal Buildings Database, www.eere.energy.gov/femp/highperformance/index.cfm, unless the agency does not have an applicable project to report. The Energy Star® rating of each facility's energy performance shall be included in each success story.

D. Leased Facilities

To the greatest extent practicable, each agency shall include a preference for buildings that meet the goals of the *Guiding Principles* in the selection criteria for acquiring leased buildings. When entering into leases for Federal occupancy, including the renegotiation or extension of existing leases, agencies shall include criteria encouraging lease provisions that support the *Guiding Principles*. Build-to-suit lease solicitations shall incorporate criteria for sustainable design and development, energy efficiency, and verification of building performance in accordance with the *Guiding Principles*.

E. Technical Guidance

Technical Guidance for implementing the *Guiding Principles* and other best practices developed by the Interagency Sustainability Working Group (ISWG) can be found in the Whole Building Design Guide, www.wbdg.org. Contents of the WBDG include clarification of requirements; related mandates; additional recommendations and considerations; and resources for implementation, including model contract and specification language per the *Federal Green Construction Guide for Specifiers*.

The ISWG shall review the *Guiding Principles* and Technical Guidance periodically for updates and to consider adopting additional principles or goals addressing issues such as conservation plantings, integrated pest management, deconstruction, and siting.

XI. Vehicle Fleet Management

E.O. 13423, sec. 2(g): In implementing the policy set forth in section 1 of this order, the head of each agency shall:

(g) ensure that, if the agency operates a fleet of at least 20 motor vehicles, the agency, relative to agency baselines for fiscal year 2005, (i) reduces the fleet's total consumption of petroleum products by 2 percent annually through the end of fiscal year 2015, (ii) increases the total fuel consumption that is non-petroleum-based by 10 percent annually, and (iii) uses plug-in hybrid (PIH) vehicles when PIH vehicles are commercially available at a cost reasonably comparable, on the basis of life-cycle cost, to non-PIH vehicles.

Sec. 3(a), excerpted, and (e): In implementing the policy set forth in section 1 of this order, the head of each agency shall:

(a) implement within the agency sustainable practices for... (viii) vehicle fleet management

(e) ensure that contracts entered into after the date of this order for contractor operation of government-owned facilities or vehicles require the contractor to comply with the provisions of this order with respect to such facilities or vehicles to the same extent as the agency would be required to comply if the agency operated the facilities or vehicles.

Lead Agencies: DOE and GSA

Workgroup: INTERFUEL

A. Applicability and Exemptions

All agencies that operate 20 or more motor vehicles within the U.S. must comply with these instructions. However, many fleet vehicle requirements from EPCA 1992 and 2005 may pertain only to a subset of an agency's fleet vehicles (i.e., "covered" vehicles). The petroleum fuel reduction provision of the E.O. does not apply to vehicles operated outside of the U.S.

Each agency shall, when calculating the replacement or reduction levels required in section 2(g) of the E.O., include fuel use from all covered vehicles, including light-duty, medium-duty, and heavy-duty vehicles unless such vehicles meet the following exemptions or the agency applies for exemptions in accordance with Section 8 of the E.O. DOE will determine if vehicles have been properly exempted by auditing the data agencies provide in the Federal Automotive Statistical Tool (FAST).

- Motor vehicles used for motor vehicle manufacturer product evaluations or tests.
- Law enforcement and emergency vehicles, including those vehicles that are used in an emergency capacity, by the agency, greater than 75 percent of the year. Agencies with vehicles meeting this definition (as approved by DOE) will have a baseline (and related record-keeping) adjustment to reflect this change.

- Military tactical vehicles, defined as motor vehicles (excluding general-purpose motor vehicles) designed to military specification or a commercially designed motor vehicle modified to military specification to meet direct transportation support of combat or tactical operations. These vehicles are inherently mission-critical and are used for no other purpose.
- Vehicles owned and operated by the Central Intelligence Agency.
- Vehicles that are not licensed for use on all roads and highways.
- Federally owned vehicles operated solely by Indian nations or state-run Fish and Wildlife services, as applicable.

B. Alternative Fuel Usage

The requirement to annually increase the use of alternative fuels by 10 percent is measured relative to the prior year's alternative fuel usage levels. If an agency fails to attain the 10 percent increase in any year, in the following year it shall attain both the percentage it missed and the 10 percent increase due for that following year.

C. Petroleum Reduction

The requirement to reduce covered petroleum use by 2 percent annually is measured relative to the baseline year 2005 petroleum usage levels. In planning for petroleum use reductions, agencies shall assess their petroleum needs across their sub-organizations, taking into account mission needs, and make adjustments where necessary to attain the 2 percent goal on average for the entire agency. If an agency fails to meet the 2 percent petroleum reduction goal in any year, in the following year it shall reduce both the percentage it missed and the 2 percent reduction due for that following year.

D. Strategies and Tools

To achieve the petroleum reduction goal of Section 2(g) of the E.O., each agency shall strive to:

- Reduce vehicle miles traveled through such methods as trip consolidation practices, increased use of videoconferencing and web conferencing, and the use of mass transportation/agency shuttles.
- Increase overall fleet fuel economy through acquisition of higher fuel economy vehicles (e.g., smaller sized vehicles, hybrid-electric vehicles, and other advanced technology vehicles).
- "Right-size" its fleet, employing the most fuel-efficient vehicle for the required task and having the appropriate number of vehicles relative to need.
- Employ efficiency strategies such as low rolling resistant tire, synthetic oil, and other technologies.

E. Plug-In Hybrid Electric Vehicles (PHEVs)

GSA shall issue a fleet order for PHEVs in all vehicle categories when PHEVs become commercially available at a cost reasonably comparable, on the basis of life-cycle cost, to non-PHEVs. Agencies shall consider the use of PHEVs as a strategy to help meet the goals of the E.O. To be considered eligible for dual-fuel vehicle status, PHEVs must meet the alternative fuel definitions of EPCA 1992, as amended by EPCA 2005; to do so, PHEVs will have to meet the minimum driving range as specified by the U.S. Department of Transportation and use electricity generated from a non-petroleum source or from the grid.

F. Data and Tracking

(1) Agency annual reports. Each covered agency is required to provide compliance data to DOE no later than December 31 of each year, starting with the FY 2007 data and each year thereafter. Each agency shall implement internal policies that will ensure accurate tracking of the vehicle acquisitions and inventory, mileage, fuel consumption by fuel type, and other relevant data. DOE shall specify the reporting format and collection methods for data to be submitted. DOE and GSA shall continue to work together on updating and maintaining FAST to reflect the goals of the E.O. and these instructions.

(2) GSA monthly reports. GSA shall supply to each agency on a monthly basis, by vehicle tag number, fuel use data (by fuel type for all petroleum and alternative fuels) for covered GSA-leased vehicles. Each agency shall track these data to ensure its accuracy and also track comparable data for all covered agency-owned and commercially leased vehicles.

(3) Credits. Federal alternative fuel vehicle (AFV) acquisition requirements are provided in section 303 of EPCA 1992. Vehicles acquired under section 303 means (i) new purchase, (ii) a newly leased vehicle, or (iii) a leased vehicle that replaces an existing leased vehicle. In calculating agency AFV acquisition compliance, each agency shall receive the following credits:

- One credit for each dual-fuel AFV (flexible fuel or bi-fuel), regardless of vehicle size class as long as the vehicle meets the AFV definition of EPCA 1992, as amended by EPCA 2005.
- Two credits for each dedicated light-duty AFV.
- Three credits for each dedicated medium-duty AFV.
- Four credits for each dedicated heavy-duty AFV.

No credit is provided for AFVs that are not licensed for use on all roads and highways.

G. Non-Covered Mobility Assets

Fleet vehicles not covered by the requirements of EPAAct 1992 and EPAAct 2005 include off-road vehicles, low-speed and neighborhood electric vehicles, and law enforcement, emergency, and military tactical vehicles. Other petroleum-using mobility assets include aircraft, ships, and other ground vehicles.

Within 180 days of the issuance of these instructions, in recognition of the national importance of reducing petroleum use, each agency operating non-covered mobility assets shall submit recommendations to DOE addressing:

- Potential goals, incentives, and methods to attain measurable reductions in petroleum in non-covered mobility assets.
- Identification of older, inefficient engines and related systems that can be cost effectively replaced or upgraded to reduce oil use.

H. Guidance

DOE shall issue further guidance from time to time to provide more detailed instructions toward compliance with these measures.

XII. Electronics Stewardship

E.O. 13423, sec. 2(h): In implementing the policy set forth in section 1 of this order, the head of each agency shall:

(h) ensure that the agency (i) when acquiring an electronic product to meet its requirements, meets at least 95 percent of those requirements with an Electronic Product Environmental Assessment Tool (EPEAT)-registered electronic product, unless there is no EPEAT standard for such product, (ii) enables the Energy Star® feature on agency computers and monitors, (iii) establishes and implements policies to extend the useful life of agency electronic equipment, and (iv) uses environmentally sound practices with respect to disposition of agency electronic equipment that has reached the end of its useful life.

Sec. 3(a), excerpted, and (f): In implementing the policy set forth in section 1 of this order, the head of each agency shall:

(a) implement within the agency sustainable practices for... (ix) electronic equipment management

(e) ensure that contracts entered into after the date of this order for contractor operation of government-owned facilities or vehicles require the contractor to comply with the provisions of this order with respect to such facilities or vehicles to the same extent as the agency would be required to comply if the agency operated the facilities or vehicles.

Lead Agencies: OFEE and EPA

Workgroup: Federal Electronics Stewardship Workgroup

A. Life-Cycle Activities

Each agency shall seek to reduce the environmental and energy impacts of its electronic equipment purchase, use, and disposal through continual improvements to the acquisition, design, specifications, material choices, distribution, and use of new electronic equipment, and the reuse, de-manufacturing, and recycling of surplus electronic equipment.

In meeting the electronics stewardship goal of section 2(h) of the E.O., each agency shall:

- Acquire more energy efficient and environmentally sustainable electronic equipment that is cost effective, while maintaining or improving equipment quality and performance.
- Identify and implement best life-cycle management business practices for electronic equipment.
- Reduce the economic and environmental life-cycle costs of Federal electronic equipment.
- Promote growth of the market and infrastructure for the reuse, donation, transfer, sale, de-manufacturing, and recycling of obsolete electronic equipment.

- Coordinate and cooperate with other public and private sector efforts aimed at achieving similar goals.

B. Electronics Stewardship Plan

By May 1, 2007, each agency shall develop and submit to OFEE a plan to implement electronics stewardship practices for all eligible owned or leased electronic equipment in support of the goals in section 2(h) of the E.O.⁷

The plan shall:

- (1) Address the three life-cycle phases for electronics assets: acquisition, operations and maintenance, and end-of life.
- (2) Be developed and implemented in coordination with the energy, environmental, information technology, acquisition, financial and property officers, and facility managers and maintenance personnel, within each agency.
- (3) Address how the agency will:
 - (i) Acquire 95 percent of its electronic products as Electronic Product Environmental Assessment Tool (EPEAT)-registered (for products for which there are EPEAT standards).⁸
 - a. Agencies will ensure applicable IT contracts incorporate appropriate language for the procurement of EPEAT-registered equipment, and address any future FAR clauses related to EPEAT.
 - b. Agencies will strive to purchase to EPEAT Silver rated electronic products or higher if available.
 - (ii) Ensure that Energy Star® features are enabled on 100 percent of computers and monitors or to the maximum degree based on mission needs.⁹

⁷ Federal agencies could determine that some electronic equipment may not be eligible to comply with some or all the goals in section 2(h) of the E.O. because of security, emergency support or other sensitive/mission critical considerations.

⁸ The Electronic Product Environmental Assessment Tool (EPEAT) is an easy-to-use tool to help purchasers rank electronics products based on their environmental attributes. For information, assistance and other support on the EPEAT tool, go to: <http://www.epeat.net>.

⁹ For information, assistance and technical support on purchasing Energy Star Compliant Electronics and implementing power management features in PCs, laptops and monitors, go to http://www.energystar.gov/index.cfm?c=ofc equip.pr_office_equipment.

- (iii) Have policies and programs to extend the useful lifetime of electronic equipment. As part of the policies and programs, agencies will:
 - a. Strive to extend the useful lifetime of electronic equipment to four (4) or more years.
 - b. Use EPA's guidance to improve the operation and maintenance of electronics products provided at www.federalelectronicchallenge.net/resources/docs/oandm.pdf.
 - c. Implement procedures to ensure the timely reuse and donation of equipment.
 - (iv) Ensure that all non-usable electronic products are reused, donated, sold, or recycled using environmentally sound management practices at end of life.
 - a. Agencies shall comply with GSA procedures for the transfer, donation, sale and recycling of electronic equipment, provided at www.federalelectronicchallenge.net/resources/docs/gsa_eolfact.pdf, as well as any applicable Federal, State and local laws and regulations.
 - b. Agencies shall use national standards, best management practices, or a national certification program for recyclers. In the absence of national standards, best management practices, or a national certification program for recyclers, agencies shall use EPA's Guidelines for Materials Management for Plug-In To eCycling partners found at www.cpa.gov/epaoswer/osw/conservc/plugin/guide.htm.
 - c. Agencies shall comply with GSA's Computers for Learning Program (CFL) under E.O. 12999 when transferring their computers and other eligible equipment and shall use GSA's CFL website, www.computers.fed.gov, to affect the transfer.
 - d. Agencies shall ensure applicable IT contracts for leased equipment incorporate adequate language to require that, at the end of the lease period, the equipment is reused, donated, sold, or recycled using environmentally sound management practices.
- (4) Address the reporting procedure to be used in measuring progress toward meeting the goals in section 2(h) of the E.O. The Federal Electronics Stewardship Workgroup may provide additional guidance on options for reporting.

C. Federal Electronics Challenge

Each agency and its facilities shall choose either to become a partner in the Federal Electronics Challenge (FEC), or to implement an equivalent electronics stewardship

program that addresses purchase, operation and maintenance, and end-of-life management strategies for electronic assets consistent with FEC's recommended practices and guidelines.

Information about the FEC, including instructions for how to become a partner, can be found on the FEC website, www.federalelectronicchallenge.net.

XIII. Definitions

The definitions in the following statutes apply to these instructions: the Resource Conservation and Recovery Act, National Energy Conservation Policy Act, Energy Policy Act of 1992 (EPAct 1992), Energy Policy Act of 2005 (EPAct 2005), Farm Security and Rural Investment Act of 2002, Emergency Planning and Community Right-to-Know Act, and the Pollution Prevention Act.

“Acquisition” means the acquiring of supplies and services as defined in Part 2 the Federal Acquisition Regulation.

“Alternative fuel” is defined by Section 301 of the Energy Policy Act of 1992, as modified from time to time by the Secretary of Energy by rule. See 10 CFR 490.2.

“Alternative fuel vehicle” means a dedicated, flexible-fuel, bi-fuel, or dual-fuel vehicle powered by alternative fuel as defined in section 301 of EPAct 1992.

“Agency” means an executive agency as defined in section 105 of title 5, United States Code, excluding the Government Accountability Office. For the purpose of the E.O., military departments, as defined in 5 U.S.C. 102, are covered under the auspices of DoD.

“Appropriate facility or organization” means any Federal facility or organization that is subject to compliance with environmental regulation or conducts activities that can have a significant impact on the environment, either directly or indirectly, individually or cumulatively, due to the operations of that facility's or organization's mission, processes, or functions.

“Chairman” means the Chairman of CEQ, including in the Chairman's capacity as Director of the Office of Environmental Quality.

“Energy efficiency” means measures, practices, or programs that reduce the energy used by specific devices and systems, typically without adversely affecting the services provided. Such savings are generally achieved by substituting technically more advanced equipment or by improving operating procedures (e.g., operations and maintenance procedures) to produce the same level of end-use services (e.g., lighting, heating, motor drive) with less energy input.

“Energy Intensity” means energy consumption per gross square foot of building space, including industrial and laboratory facilities.

“Energy Savings Performance Contract” means a contract (such as a task ordered by DOE and awarded to an energy service company) that provides for the performance of services for the design, acquisition, financing, installation, testing, operation, and maintenance and repair, of an identified energy, water conservation or renewable energy measure or series of measures at one or more locations. Such contracts shall provide that the contractor must incur costs of implementing energy savings measures, including at

least the cost (if any) incurred in making energy audits, acquiring and installing equipment, and training personnel in exchange for a predetermined share of the value of the energy savings directly resulting from implementation of such measures during the term of the contract. Payment to the contractor is contingent upon realizing a guaranteed stream of future energy and cost savings, with any savings in excess of that guaranteed by the contractor accruing to the Federal government.

“Environmental Management System” means a set of processes and practices that enable an organization to increase its operating efficiency, continually improve overall environmental performance and better manage and reduce its environmental impacts, including those environmental aspects related to energy and transportation functions. EMS implementation reflects accepted quality management principles based on the “Plan, Do, Check, Act,” model found in the ISO 14001:2004(E) International Standard and using a standard process to identify and prioritize current activities, establish goals, implement plans to meet the goals, evaluate progress, and make improvements to ensure continual improvement.

“Environmentally preferable” means products or services that have a lesser or reduced effect on human health and the environment when compared with competing products or services that serve the same purpose. This comparison may consider raw materials acquisition, product, manufacturing, packaging, distribution, reuse, operation, maintenance, or disposal of the product or service.

“EPA-designated item” means an item designated by EPA in a Comprehensive Procurement Guideline and for which EPA recommended procurement practices, including recovered materials content levels, in a Recovered Materials Advisory Notice (RMAN).

“Facility” means any building, installation, structure, land, and other property owned or operated by, or constructed or manufactured and leased to, the Federal Government, as well as any fixture. This term includes a group of facilities at a single or multiple location(s) managed as an integrated operation, as well as government-owned contractor-operated facilities. For purposes of energy reporting, “facility” excludes land and sites where the utilities are not paid by the reporting agency (i.e., in cases where no separate periodic invoice for utilities is required to be paid).

“Greenhouse gases” carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride.

“Life cycle cost” means the amortized annual cost of a product, system, or service, including capital costs, installation costs, operating costs, maintenance costs, and disposal costs discounted over the lifetime of the product. For purposes of the energy and water efficiency sustainable practices of E.O. 13423, “life-cycle costs” means the sum of the present values of investment costs, capital costs, installation costs, energy costs, operating costs, maintenance costs, and disposal costs, over the lifetime of the project, product, or measure.

“Life-cycle cost-effective” means that the life-cycle costs of a product, project, or measure are estimated to be equal to or less than the base case (i.e., current or standard practice or product).

“New renewable energy” means renewable sources placed in service after January 1, 1999.

“Non-petroleum based fuels,” as used in E.O. 13423, means alternative fuels consistent with the definition presented in section 301 of the EPA Act 1992.

“Ozone-depleting substances” means any substance designated as a Class I or Class II substance by the EPA in 40 CFR Part 82.

“Pollution prevention” means “source reduction” as defined in the Pollution Prevention Act of 1990 (42 U.S.C. 13102), and other practices that reduce or eliminate the creation of pollutants through (a) increased efficiency in the use of raw materials, energy, water, or other resources, or (b) the protection of natural resources by conservation.

“Recycling” means the series of activities, including collection, separation, and processing, by which products or other materials are recovered from the solid waste stream for use in the form of raw materials in the manufacture of new products other than fuel for producing heat or power by combustion.

“Renewable energy” means energy produced by solar, wind, biomass, landfill gas, ocean (including tidal, wave, current, and thermal), hydrokinetic, geothermal, municipal solid waste, or new hydroelectric generation capacity achieved from increased efficiency or additions of new capacity at an existing hydroelectric project.

“Solid waste diversion” means non-hazardous solid waste diverted from entering a disposal facility. Waste prevention, reuse, composting, mulching, recycling, and donation are generally accepted waste diversion methods.

“Steering Committee” means the Steering Committee on Strengthening Federal Environmental, Energy, and Transportation Management established under subsection 4(b) of E.O. 13423.

“Sustainable” means of or pertaining to creating and maintaining conditions under which humans and nature can exist in productive harmony, that permit fulfilling the social, economic, and other requirements of present and future generations of Americans.

“United States” when used in a geographical sense, means the 50 states, the District of Columbia, the Commonwealth of Puerto Rico, Guam, American Samoa, the U.S. Virgin Islands, and the Northern Mariana Islands, and associated territorial waters and airspace.

“Utility Energy Service Contract (UESC)” is a contract between a Federal agency and a local utility providing energy, water, or sewage services, as well as provision of technical services and/or upfront project financing for energy efficiency, water conservation, and renewable energy investments, allowing Federal agencies to pay for the services over time, either on their utility bill, or through a separate agreement.

“Waste prevention” means any change in the design, manufacturing, purchase, or use of materials or products, including packaging, to reduce their amount or toxicity before they are discarded. Waste prevention also refers to the reuse of products or materials.

“Water consumption intensity” means water consumption measured in gallons per gross square foot of building space, including industrial and laboratory facilities, and surrounding land.

APPENDIX – E.O. AND INSTRUCTIONS REQUIREMENTS

Requirement	Responsible Agency	Time Frame	Deliverable	Other/Comments
Prepare and Issue E.O. Implementing Instructions	Council on Environmental Quality		E.O. implementing instructions	Consultation with OMB and the Steering Committee
	Office of Management and Budget		Instructions for periodic evaluation of progress (scorecards)	Consultation with CEQ and the Steering Committee
	Office of Management and Budget		Instructions for budget and appropriations related to E.O. implementation	Consultation with CEQ and the Steering Committee
Designate Senior Official	Agencies	February 23, 2007	Report designee to CEQ and OMB; authorize designee to monitor agency implementation of the goals and requirements of the E.O	.
Establish Steering Committee	Council on Environmental Quality		Steering Committee chaired by the FEE	Membership is agency senior officials
Environmental Management Systems				
EMS Guidance	EPA	As needed	Additional EMS guidance	
Implement EMS at all appropriate organizational levels	Agencies	On-going	Identification of additional facilities or organizational levels at which EMS are to be implemented. Established EMSs.	Primary management approach for addressing environmental aspects of internal agency operations, including environmental aspects of energy

				and transportation functions.
Establish environmental management training	Agencies	On-going	Training for appropriate staff in actions needed to implement E.O. 13423	
Establish environmental compliance review and audit programs	Agencies			Can be part of EMSs where EMSs exist at the appropriate organizational level
Energy and Water Management				
Issue renewable energy-related guidance	DOE	Within 90 days of issuance of E.O. implementing instructions	Guidance on achieving the renewable energy goal, use of renewable energy credits, use of alternatively finance projects, use of and investment in renewable energy generation, and retention of funds	
Issue water conservation-related guidance	EPA	Within 180 days of issuance of E.O. implementing instructions	Guidance on FY 2007 baseline and meeting the water conservation goal.	
Implement energy efficiency goals: Reduce energy intensity by 3% annually OR 30% relative to FY 2003 baseline	Agencies	Beginning in FY 2007, 3% annually through FY 2015 OR 30% by FY 2015	Reduced energy intensity at Federal buildings; improved energy efficiency; and reduced greenhouse gas emissions	
Implement energy goals: Meet at least half	Agencies		Use of renewable energy from sources placed	

of EPA Act 2005 renewable energy goals from new sources			into service after January 1, 1999	
Implement energy goals: Implement on-site renewable energy projects	Agencies		Develop additional on-site renewable energy projects	Where feasible
Implement water reduction goals: Reduce water consumption intensity by 2% annually through end of FY 2015 OR 16% by end of FY 2015	Agencies	Beginning in FY 2008	Reduce water consumption intensity	FY 2007 baseline
Green Purchasing				
Prepare and issue E.O. implementing instructions	OMB/OFPP	Within 90 days of issuance of E.O. implementing instructions	OFPP Policy Letter for implementing the acquisition requirements of the E.O.	Consultation with CEQ and the Steering Committee
Prepare and issue E.O. implementing instructions	OMB/OFPP	As soon as possible	Federal Acquisition Regulation revisions, as necessary to implement the E.O.	Consultation with CEQ and the Steering Committee
Review CPG	EPA		Review recycled content product designations and delete ineffective or obsolete designations	
Program coordination	EPA, DOE, USDA	On-going	Coordinated product designations and guidance	
Model green purchasing programs	EPA, DOE, USDA	On-going	Model programs for implementing the green purchasing	

			program components for which each respective agency is the technical lead	
Purchase green products and services	Agencies	On-going from previous years	Acquisition of products and services requiring the supply or use of green products	Recycled content products, Energy efficient products, Renewable energy, Water efficient products, Biobased products, Environmentally preferable products and services, Non-ozone depleting substances, Products with low or no toxic or hazardous constituents
Purchase printing and writing paper containing 30% postconsumer fiber	Agencies	On-going from previous years		
Contracts for operation of government facilities or fleet require compliance with E.O. requirements	Agencies	Contracts entered into beginning January 24, 2007	Contracts that require contractor to comply with the E.O. requirements to the same extent as the agency	
Agreements, permits, leases, licenses, or other legally-binding obligations require tenant or	Agencies	Obligations entered into beginning January 24, 2007		Requirements are added to the extent the head of the agency determines appropriate

concessionaire to take actions facilitating agency's compliance with E.O. requirements				
Management of Toxic and Hazardous Chemicals and Materials				
Develop toxics and hazardous chemicals and materials reduction plan	Agencies	By January 24, 2008	Written plan	Include goals and support actions to reduce the release and use of toxic and hazardous chemicals and materials
Reduce the quantity of toxic and hazardous chemicals and materials acquired, used, or disposed	Agencies		Purchase and use of no or low toxic or hazardous chemicals, including products containing toxic or hazardous constituents	
Ozone-depleting substances use, recovery, and recycling	Agencies using ODSs or products containing ODSs	On-going	Use of alternatives to ODSs as approved by the EPA SNAP program; revision of personal property management policies; and implementation of program to transfer ODSs to the DoD reserve	
TRI Reporting	Agencies	Annually, per schedule in EPA TRI guidance	Annual report on releases of toxic and hazardous materials	
Waste Diversion/Recycling				
Establish and report to FEE solid waste diversion goals	Agencies	April 24, 2007	Waste diversion goal to be achieved by December 31,	Establish goal if one not previously established under E.O. 13101

			2010	
Designate facility recycling coordinators	Agencies	On-going	Facility recycling coordinators	
Increase diversion of solid waste	Agencies	On-going	Reduce solid waste sent to landfills or incineration	
Maintain waste prevention and recycling programs at agency facilities, including leased facilities, in cost-effective manner	Agencies	On-going	Reduce or eliminate product purchases (waste prevention) and increase recycling, donation, reuse, repair	
Justification for use of recycling revenue	Senior officials	On-going	Justification to OFEE, for resolution with OMB, of uses of recycling revenue other than those listed in statute	
Sustainable Design/High Performance Buildings				
Develop and implement sustainable design/high performance buildings implementation plan	Agencies	July 1, 2007 for new facilities and renovations Date specified by OMB for existing facilities	Sustainable design/high performance buildings plan	Developed by cross-functional support team Submitted to OMB and OFEE
Review Guidance Principles and Technical Guidance	Interagency Sustainability Working Group	Periodically	Update, expand, and/or revise guiding principles and technical guidance	
Report projects to High Performance Federal Buildings Database	Agencies	Annually	Expanded and updated database	At least one major building project annually unless agency does not have an applicable project for a given year

Ensure that new construction and major renovation of buildings comply with <i>Guiding Principles for Federal Leadership in High Performance and Sustainable Buildings</i>	Agencies	On-going	Sustainable design incorporated into new Federal building construction and renovation	Guiding Principles set forth in MOU on Federal Leadership in Higher Performance and Sustainable Buildings
Ensure that 15% of existing capital asset building inventory incorporates the sustainable practices in the <i>Guiding Principles</i>	Agencies	As of the end of FY 2015	Sustainable design principles incorporated into existing Federal buildings	
Fleet Management				
Submit fleet compliance data to DOE	Agencies	Starting with FY 2007 data, annually, by December 31		
Specify reporting format and collection methods	DOE		Consultation with OMB	
Provide fuel use data to agencies	GSA	Monthly	Data for covered GSA-leased vehicles	
Issue guidance	DOE	As needed	Guidance on compliance with fleet provisions of E.O. and instructions	
Reduce fleet vehicle petroleum consumption by 2% annually	Agencies	Annually through end of FY 2015	Reduced petroleum consumption in Federal fleet vehicles	Applies to fleets of at least 20 vehicles

through end of FY 2015				
Increase fleet vehicle alternative fuel use by 10% annually	Agencies	Annually		
Purchase and use plug-in hybrid electric vehicles	Agencies	When commercially available at a cost reasonably comparable on a life-cycle basis to non plug-in vehicles	Increased usage of plug-in hybrid electric vehicles	
Submit recommendations to DOE for reducing petroleum use in non-covered mobility assets	Agencies operating non-covered vehicles and other mobility assets	Within 180 days of issuance of E.O. implementing instructions	Recommendations for potential goals, incentives, and methods to reduce petroleum use, including replacement of engines	
Electronics Stewardship				
Develop and submit to OFEE an electronics stewardship plan	Agencies	May 1, 2007	Electronics stewardship plan to implement E.O. and implementing instructions	
Join FEC or implement equivalent program	Agencies		Improved electronics stewardship	
Purchase EPEAT-registered electronic products	Agencies	When EPEAT standards exist for electronic products being purchased	Increase purchase and use of environmentally preferable office electronic products	Meet 95% of electronics needs with EPEAT-registered products
Enable Energy Star feature on computers and	Agencies	On-going	Increased energy efficiency of agency computers	

monitors			and monitors	
Establish and implement policies to extend the useful life of agency electronic equipment	Agencies	On-going	Extend equipment life and reduce quantity of equipment requiring end-of-life management	
Implement environmentally sound management of electronic equipment at end of useful life	Agencies	On-going	Increase donation, recycling, and other alternatives to landfilling of electronics	
Other Requirements				
Administer Presidential Leadership Awards	Council on Environmental Quality	Annually		Federal Environmental Executive provides advisory role
Prepare Biennial Report to the President	Federal Environmental Executive; agencies	Every 2 years	Report on the agencies' activities to implement the E.O.	Agencies provide implementation reports as required by CEQ
Maintain Office of the Federal Environmental Executive	Federal Environmental Executive	On-going	OFEE	Maintained in EPA for administrative and funding purposes
Implement awards program	Agencies	As per agency program schedule		
Provide information and assistance to OMB, CEQ, and FEE	Agencies	As requested		

Attachment 3

**Proposed Development Schedule
Environmental Protection Program**

Milestone	Date
Send Justification memorandum to Office of Management (MA-44)	July 2007
Invite stakeholders to participate in revising directive	August 2007
Begin developing draft revised directive	August 2007
Send draft revised directive to management for review	September, 2007
Send draft revised directive to MA-44	October 2007
Post to RevCom	November 2007
Target approval date`	February 2008
