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UNITED STATES OFFICE OF PERSONNEL MANAGEMENT
Washington, DC 20415

Office of the
Inspector General

April 1, 2013

Henry A. Waxman
Co-Chair
Bicameral Task Force on Climate Change
Ranking Member, Committee on Energy & Commerce

Sheldon Whitehouse
Co-Chair
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Chairman, Subcommittee on Oversight, Senate Committee on Environment and Public Works

Edward J. Markey
Co-Chair
Bicameral Task Force on Climate Change
Ranking Member, Committee on Natural Resources

Benjamin L. Cardin
Co-Chair
Bicameral Task Force on Climate Change
Chairman, Subcommittee on Water and Wildlife, Senate Committee on Environment
and Public Works

Dear Committee Members:

This letter is in response to your request, dated February 25, 2013, asking that I conduct an inquiry to assess whether the Office of Personnel Management (OPM) is doing everything it can to confront the growing threat of climate change. You specifically asked that my office:

- identify the existing requirements in legislation, regulation, executive order, and other directives that apply to OPM;
- assess whether OPM is meeting these requirements; and,
- if OPM is not fully meeting the requirements, make recommendations for improving its performance.

In addition, you also requested my assessment of:

- the authorities OPM has to reduce emissions of heat-trapping pollution;
- OPM's authorities to make the nation more resilient to the effects of climate change; and,

- the most effective additional steps OPM could take to reduce emissions and strengthen resiliency.

The attachment to this letter includes a written response to each of your questions. If there are any questions regarding this response, please feel free to contact me, at (202) 606-1200, or have a member of your staff contact Michael R. Esser, Assistant Inspector General for Audits, on (202) 606-2143.

Sincerely,

Patrick E. McFarland
Inspector General

Enclosure

Enclosure

Date: April 1, 2013

U.S. OFFICE OF PERSONNEL MANAGEMENT
OFFICE OF THE INSPECTOR GENERAL

RESPONSE TO CONGRESSIONAL INQUIRY ON OPM'S REQUIREMENTS AND PROGRESS IN ADDRESSING CLIMATE CHANGE

Introduction

The following information provides the results of our inquiry into whether the Office of Personnel Management (OPM) is doing everything it can to confront the growing threat of climate change. The responses provided address the questions of the Bicameral Task Force on Climate Change, but are not the result of any audit procedures performed by this office. Our responses summarize information gathered in cooperation with OPM's personnel responsible for its Strategic Sustainability Performance Plans.

1. Identify the existing requirements in legislation, regulation, executive order, and other directives that apply to the government entity you oversee.

Using a document prepared by the Department of Energy, we prepared an Exhibit (Sustainability Laws and Regulations for OPM) which is attached that summarizes the applicable sustainability requirements in legislation, regulation, and executive orders that apply to OPM. Below is a summary of the scope of the OPM facilities and vehicle fleet impacted.

OPM Facilities

While OPM owns no facilities, it leases 65 facilities from the General Services Administration (GSA). GSA has given OPM "Delegation of Authority" to manage three of these facilities: OPM headquarters in Washington, D.C., Theodore Roosevelt Building (TRB); a facility in Macon, Georgia, that houses a data center and information technology support operations (Macon); and the Federal Executive Institute (FEI) in Charlottesville, Virginia. In addition, OPM signed the leases for the Western Management Development Center (WMDC) in Denver, Colorado, and the Eastern Management Development Center (EMDC) in Shepherdstown, West Virginia, thereby making OPM responsible for reporting compliance with Executive Order 13514's High Performance Sustainable Buildings' targets for these two facilities. OPM is also responsible for meeting the targets specified in the Exhibit (except for the targets for High Performance Sustainable Buildings) for the three delegated facilities (TRB, Macon, and FEI).

Vehicle Fleet

OPM purchases fuel for approximately 1,664 vehicles (one owned, one commercially-leased, and the remainder leased from GSA). OPM is responsible for meeting fleet petroleum targets identified on the Exhibit for its vehicle fleet, both owned and leased.

2. Assess whether OPM is meeting these requirements.

OPM's Fiscal Year (FY) 2011 Scorecard[1] showed it was meeting goals and targets in the following areas:

[1] The Scorecard is prepared by the Office of Management and Budget and is a rating of the agency's performance in several categories of environmental stewardship. It provides the public with a measure of accountability to ensure agencies are working toward reducing the Federal impact on the environment.

- Reductions in Greenhouse gases for Scope 1, 2, and 3 emissions; and,
- Use of Renewable Energy as a percent of facility electricity use.

OPM's FY 2011 Scorecard also showed it was failing to meet goals and targets in the following areas:

- Reduction in Energy Intensity;
- Reduction in Potable Water Intensity;
- Reduction in Fleet Petroleum Use; and,
- Sustainable Green Buildings.

In addition, the Office of Management and Budget (OMB) rated OPM as RED on actions taken since January 2012; RED on planned actions for July through December 2012; and indicated that its planned actions were not adequate to get back on track with energy, water, fleet, or building goals.

In October 2012, OPM provided OMB with additional planned actions for the July 2012 through January 2013 timeframe, that were not included on the July 2012 Scorecard, to demonstrate improvement in some areas where OMB indicated that OPM needed to improve. In addition, in 2012, OPM reviewed the data for its energy intensity, water reduction, and greenhouse gas baselines and determined that the energy and greenhouse gas baselines and the FY 2011 data required adjustments. The recalculations included:

- The FY 2003 energy intensity baseline and the FY 2011 result were corrected to include missing square footage and utilities.
- The FY 2011 water intensity result was recalculated using newly available data. For the FEI facility, estimates were replaced with data obtained from utility bills. For the Macon facility, utility data was unreliable due to a broken water meter.
- The FY 2008 and FY 2011 greenhouse gas (GHG) inventories and the FY 2008 baselines were updated with corrections to data for utilities and square footage for its delegated facilities.
- Business travel was updated to standardize use of data from GSA travel databases.

OPM submitted the data for its FY 2012 sustainability performance to the Department of Energy through its Federal Energy Management Program in January 2013. Below is a summary table of OPM's FY 2011 and FY 2012 performance against the scorecard elements. Based on the performance results, OPM is making sufficient progress in reducing the scope 1, 2 and 3 GHG emissions and increasing use of renewable energy at its three delegated facilities. OPM is still struggling to demonstrate progress toward the targets specified in the legislative requirements for reducing energy intensity, reducing potable water use, reducing fleet petroleum use for its three delegated facilities, and meeting the principles for sustainable green buildings for WMDC and EMDC. The following table provides the most recent data on OPM's progression toward meeting sustainability requirements.

OPM's Progression on Sustainability Requirements							
		OPM's Data			Results		
Status	**Scorecard Element**	**Baseline**	**FY 2011 Data**	**FY 2012 Data**	**FY 2011 Performance**	**FY 2012 Performance**	**Target**
	Scope 1 & 2 GHG (Metric Tons of CO2e)	18,025	18,833	15,873	4.5%	-11.9%	- 20% by 2020
	Scope 3 GHG (Metric Tons of CO2e)	24,542	26,611	21,244	8.4%	-13.4%	- 5% by 2020
	Energy Intensity (Btu per Square Foot)	84,660	90,664	82,253	7.1%	-2.8%	- 30% by 2015
	Water Intensity (Gallons per Square Foot)	20.6	29.1	27.3	41.3%	32.5%	- 16% by 2015
	Petroleum (Gallons)	402,126	754,292	713,225	87.6%	77.4%	- 20% by 2015
	Green Sustainable Buildings	N/A*	N/A*	N/A*	0%	0%	15 % by 2015

Status	Requirement	**Renewable Electricity Use (Mega Watts)**	**Total Electricity Use (Mega Watts)**	**Performance**	**Targeted Increase**
	Renewable Energy FY 2011	796.5	21,898.90	3.6%	5% in each year for years FY 2010 through FY 2012
	Renewable Energy FY 2012	1259.1	20,626.00	6.1%	

**- There is no data to report for this element as the requirement is to incorporate the Guiding Principles, which represents an agreed upon set of sustainable buildings guidance between all Executive Branch Departments. The target is to achieve 15 percent of existing Federal building inventory that incorporates the Guiding Principles by 2015.*

Below is a discussion of the challenges OPM faces for those areas where performance has not been adequate to meet the established targets.

Reduction in Energy Intensity

According to Executive Order 13423, OPM must reduce building energy intensity 3 percent per year annually through FY 2015, or achieve 30 percent total reduction by FY 2015 compared to the FY 2003 baseline. OPM did reduce its energy usage from FY 2011 to FY 2012; however, OPM is not making sufficient progress toward meeting the targeted reductions. According to OPM, the reason for this is due to the American Recovery and Reinvestment Act (ARRA) modernization project at its headquarters facility, the TRB. OPM is in the midst of a major renovation project at the TRB, which includes heating, ventilation, and air conditioning /mechanical systems modernization, installation of low-water flow toilets, lighting upgrades throughout the building and parking garage, improved window insulation, and photovoltaic panels on the roof to provide electricity for daily use.

Some of the construction and renovation work has occurred during off-hours, so as not to interfere with daily operations, resulting in higher than normal energy usage. This is expected to decrease with the completion of the ARRA projects.

According to the Energy Independence Security Act of 2007, agencies must complete energy and water audits every four years for each covered facility. OPM contracted with two vendors to perform energy and water audits for its facilities at FEI, Macon, and the TRB. Reports for each facility were made available in April, October, and December 2012, respectively.

In addition, in accordance with a Presidential Memorandum, Implementation of Energy Savings Projects and Performance-Based Contracting for Energy Savings, OPM selected Clark Energy Group to conduct an assessment of potential energy savings at the TRB and FEI. The Presidential Memorandum committed the Federal Government to enter into a combined $2 billion in energy savings contracts by the end of 2013. The directives in the Memorandum help to ensure that agencies fully meet the requirements of Executive Order 13514. OPM has committed to spend $1 million toward energy savings performance-based contracts. OPM received a preliminary assessment from the Clark Energy Group, dated January 2013. Based on the comprehensive energy and water audits performed and the recommendations for energy and water savings from the Clark Energy Group assessment for the TRB and FEI, OPM can make improvements in its energy and water reductions. OPM is currently working with GSA to create a plan to implement the recommendations presented in the assessment.

Reductions in Potable Water

According to Executive Order 13514, OPM is required to reduce potable water consumption by 2 percent annually through FY 2020 or 26 percent by the end of FY 2020, based on its FY 2007 baseline levels. OPM is not on track to meet required reductions in potable water usage. The TRB facility showed a 50 percent increase in water use starting in FY 2011 that cannot be explained by operational changes. The water audit contractor and the performance-based contract assessment identified anomalies and potential inaccuracies in the data provided by the utility. OPM is in the process of investigating the anomalies. In 2013, OPM will award a contract for the installation of low-flow fixtures in all 36 restrooms in the TRB, which is expected to reduce building water use by 13 percent.

Fleet Petroleum Use

According to Executive Order 13514, OPM is required to reduce fleet consumption of petroleum products by two percent annually through the end of FY 2020 compared to the 2005 baseline. OPM is not on track to meet the targeted fleet petroleum reductions and has indicated it will never meet the targets. The fleet petroleum baseline was determined in 2005 according to legislative requirements. OPM's petroleum use increased 77.4 percent in FY 2012 over the 2005 baseline. OMB requested that OPM improve its fleet management plan (contained in the FY 2012 Strategic Sustainability Plan) to include

specific strategies to address right-sizing of its fleet to achieve at least a 10 percent reduction.

In 2012, OPM hired a fleet manager to better manage OPM's fleet petroleum usage and to find ways to right-size the vehicle inventory and replace large vehicles with subcompact models or hybrids. Some of OPM's strategies include:

- OPM has developed new procedures whereby all vehicle requests are reviewed and approved by the agency fleet manager. For the FY 2013 ordering cycle, 213 of 288 sedans were downsized to subcompact models and 11 vehicles were eliminated from the fleet.

- OPM is pursuing an all Alternative Fuel Vehicle Fleet through the annual GSA acquisition/rotation cycle by 2015.

	(Actual) 2011	(Actual) 2012	(Target) 2013	(Target) 2014	(Target) 2015
Conventional Fuel Vehicles	38%	33%	17%	13%	0%
Alternative Fuel Vehicles	62%	67%	83%	88%	100%

- OPM recently implemented the Department of Energy fuel tracking program, "FLEETDASH." The FLEETDASH program will be used to monitor fuel use trends and identify missed opportunities to purchase alternative fuel, as well as develop strategies to meet petroleum reduction and alternative fuel goals.

- OPM submitted waiver requests for no alternative fueling stations located within a five mile radius for assigned Alternative Fuel Vehicles. Waiver requests for 726 vehicles were submitted - 587 were disapproved and 139 approved.

Green Sustainable Buildings

According to Executive Order 13514, OPM is required to ensure that 15 percent of facilities and building leases above 5,000 square feet incorporate the Guiding Principles, as determined by the Federal Real Property Profile by 2015. In addition, OPM must demonstrate annual progress toward 100 percent conformance with the Guiding Principles for its entire building inventory. OPM signed the leases for WMDC and EMDC and is required to incorporate the Guiding Principles for these two buildings. OPM has not made any progress toward the sustainable green building target because the two facilities are privately-owned and OPM cannot enforce ways to make the buildings more sustainable. OPM has indicated that it will exit the leases for WMDC and EMDC by 2015 and will seek to lease the facilities through GSA, which will be responsible for demonstrating progress toward this goal.

Progress on Other Areas of Sustainability

OPM reports progress for the following sustainability areas through the scorecard process; however, these areas are not part of the seven status items. They are: Advanced Metering and Measurement, Sustainable Acquisition, and Electronic Stewardship. OPM has metered all three delegated facilities and has met the requirements for advanced metering and measurement. In addition, OPM has demonstrated progress toward sustainable acquisition targets; however, it has not demonstrated progress toward the electronic stewardship targets. Below is a discussion of OPM's progress in this area.

Electronic Stewardship

According to Executive Order 13514, OPM must enable power management, duplex printing, and other energy efficient features on all eligible electronic devices, ensure procurement of ENERGY STAR designated electronic equipment and implement best practices in energy-efficient management of servers and Federal Data Centers. In its FY 2010 Strategic Sustainability Plan, OPM committed to ensuring that 50 percent of information technology (IT) equipment is green certified in 2010, 75 percent in 2011, 90 percent in 2012, and 95 percent in 2013. OMB has indicated on the FY 2011 Scorecard that OPM has not met electronic stewardship goals for power management. OPM reported on its FY 2012 scorecard submission that it is 64.2 percent compliant. OPM plans to deploy 1,000 new laptops with power management enabled features by June 2013, increasing compliance to 70 percent, which is still below its commitment level of 95 percent compliant by 2013. OPM's FY 2011 Strategic Sustainability Plan identifies some challenges. For example, key infrastructure (e.g., hardware and software tools) is aging and in need of modernization. Necessary funding to refresh technology, equipment, and staffing is severely lacking, delaying the required modernization of the agency's IT infrastructure.

3. If OPM is not fully meeting the requirement, make recommendations for improving its performance.

Recommendations for Improving Energy and Water Reductions

Once all of the TRB building renovations are complete, OPM's energy intensity reduction should improve. OPM has completed renovations for 2 of the 10 floors at the TRB and the remaining renovations are estimated to be completed in late 2014 to mid-2015. However, the renovations at the TRB alone will not result in the necessary reductions to reach compliance with the legislative targeted reductions. To help achieve further reductions, we recommend OPM continue to work with GSA to implement as many energy and water reduction recommendations as possible from the Clark Energy Assessment for the TRB and FEI. In addition, OPM should take steps to award an energy saving performance-based contract for its Macon facility to achieve energy and water reductions necessary for compliance with legislative targets.

Recommendations for Improving Fleet Petroleum Use

We recommend that OPM continue to work with GSA to seek opportunities to right-size the fleet inventory and composition for cost savings and to minimize petroleum consumption.

Recommendations for Electronic Stewardship

We recommend that OPM update its Strategic Sustainability Plans to include strategies to bring it into compliance with its Electronic Stewardship goals.

4. Assessment of the authorities OPM has to reduce emissions of heat-trapping pollution.

OPM has no direct authority to reduce emissions of heat-trapping pollution; however, through increased telework, it can help reduce scope 3[2] emissions. OPM's unique position as the human resources agency for the Federal Government provides an opportunity to educate Government agencies and employees about ways to conserve resources and reduce greenhouse gas emissions. One of the ways OPM is doing this is through leveraging flexible work environments, such as telework. In addition, one of OPM's key programs involves training to ensure the Government's learning and development efforts support investments in leadership, knowledge, and talent management.

Under the Telework Improvement Act of 2010 (Act), OPM is one of the agencies responsible for providing overall guidance and helping agencies implement effective telework programs. One of OPM's goals in this responsibility is to encourage telework as an effort to reduce environmental impact by reducing vehicles on the roadways, and to sustain continuity of operations in the event of an emergency or weather-related event. OPM is also tasked with researching the utilization of telework by public and private sector entities to identify best practices and recommendations for the Federal Government. OPM is also directed under the Act to review the outcomes associated with an increase in telework, including the effects of telework on energy consumption and urban transportation patterns.

The OPM Training and Executive Development Group designs policy and programs to ensure the Government's learning and development efforts support strategic human capital investments in Leadership, Knowledge, and Talent Management. This is accomplished through offering training and development programs to Federal employees. OPM is in the process of developing a training course on sustainability to be taught at the Federal Executive Institute to future executives.

[2] Scope 3 emissions are greenhouse gas emissions from sources not owned or directly controlled by a Federal agency but related to agency activities. For example, business travel and employee commuting.

5. Assessment of OPM's authorities to make the nation more resilient to the effects of climate change.

We are not aware of any specific authorities OPM has that are intended to make the nation more resilient to the effects of climate change. However, as discussed above, OPM's authorities related to promoting telework and sustainability training to the Federal workforce could have this impact by setting an example for the nation.

6. Most effective additional steps OPM could take to reduce emissions or strengthen resiliency.

As discussed above, additional steps that OPM could take to reduce scope 3^2 emissions are limited to increasing the use of telework in Federal agencies. Through additional training of Federal executives, OPM may be able to strengthen resiliency toward climate change.

Goal / Target	E.O. 13514	E.O. 13423	Existing Statute
Greenhouse Gas (GHG)	Prepare baseline of GHG emissions for scope 1 and 2 emissions for fiscal year (FY) 2008 by January 3, 2010; for scope 3 GHG emissions by June 2, 2010 [§7((b)(i)].	N/A	N/A
GHG Emission Reductions	Establish agency-wide GHG emission percentage reduction targets by FY 2020 (baseline FY 2008) for: • Scope 1 and scope 2 GHG emissions by FY 2020 (due January 4, 2010). • Scope 3 GHG emissions (due June 2, 2010). [§2(a) and (b)]	Reduce GHG emissions through reduction of energy intensity by (1) 3% annually through FY 2015 or (2) 30% by FY 2015 (baseline 2003). [§2(a)]	N/A
GHG Emission Reporting	Report comprehensive GHG emission inventory for FY 2010 by January 5, 2011, and annually thereafter by the end of January. [§2(c)]	N/A	[EISA §527]: Each Federal agency must issue an annual report that describes the status of initiatives to improve energy efficiency, reduce energy costs, and reduce GHG emissions. [EPA MGGRR]: Facilities and suppliers of fossil fuels or industrial GHGs that emit more than 25,000 metric tons of CO2-emissions per year must report their emissions by March 31, 2011, for 2010 emissions. Reports submitted annually thereafter.
Building Energy	Reduce energy intensity in buildings to achieve GHG reductions. [§2(a)(i)]	Reduce building energy intensity 3% annually through FY 2015, or 30% total reduction by FY 2015 (baseline FY 2003). [§2(a)]	[EISA §431]: Reduce building energy intensity 3% annually through 2015, or 30% total reduction by 2015 (baseline 2003).
Renewable Energy Consumption	Increase use of renewable energy. [§2(a)(ii)]	Ensure that 50% of statutorily required renewables comes from "new" (as of 1999) sources. [§2(b)]	[EPAct 2005 §203]: Defines "renewable energy." [EPAct 2005 §203]: Increase renewables 3% in FY2007-2009; increasing to 5% in FY 2010-2012; and increasing to 7.5% in FY 2013 and beyond. [EISA §523]: 30% of hot water demand in new Federal buildings and major renovations must be met with solar hot water if life-cycle cost effective.
Fleet Petroleum Use	Reduce fleet consumption of petroleum products 2% annually through end of FY 2020 (baseline FY 2005). [§2(a)(iii)(C)] Use low-GHG-emitting vehicles. [§2(a)(iii)(A)] Optimize number of vehicles in fleet. [§2(a)(iii)(B)]	*Reduce vehicle petroleum consumption 2% annually through FY 2015. (baseline FY2005). [§2(g)] *Achieve 10% increase in non-petroleum fuel consumption annually (baseline FY2005).[§2(g)] *Use plug-in hybrids (PIH) when commercially available at a life-cycle costreasonably comparable to non-PIH vehicles.[§2(g)]	[EISA §142]: Reduce vehicle petroleum reduction 20% by FY 2015 (baseline FY2005). [EISA §142]: Achieve 10% increase in non-petroleum fuel use annually by 2015 baseline2005). [EISA §246]: Install at least one renewable fuel pump at each Federal fleet fueling center by 2010. [EISA §141]: Federal agencies are prohibited from acquiring any light-duty motor vehicle or medium-duty passenger vehicle that is not a "low greenhouse gas emitting vehicle." Alternatively, an agency may demonstrate that it has adopted cost-effective policies to reduce petroleum consumption to achieve a comparable reduction in GHGs.[EPAct 2005 §701]: Dual-fueled vehicles to be operated on alternative fuel unless waivered.

Renewable Energy Generation	Implement renewable energy generation projects on agency property. [§2(a)(ii)]	Implement new renewable energy generation projects on agency property for agency use. [§2(b)]	[EPAct 2005 §203]: Double count renewable energy produced on Federal or Indian lands and used on-site at Federal facilities.
Supply Chain GHG Emissions	Pursue opportunities with vendors and contractors to reduce GHG emissions. (§2(b)(i))	[Indirect] In agency acquisition of goods and services, use of sustainable environmental practices, including energy-efficient products, is encouraged. [§2(d)]	[EISA §526]: Federal agencies are prohibited from procuring synfuel unless its life-cycle GHG emissions are less than those for conventional petroleum sources.
Scope 3 Emissions	Implement transit, travel, training, and conferencing strategies to support low-carbon commuting and travel. [§2(b)(ii)] Implement innovative policies to address scope 3 emissions unique to agency operations. [§2(b)(iv)]	N/A	N/A
Potable H20 Consumption	Reduce 2% annually potable water consumption intensity through FY 2020 or 26% by the end of FY2020 (baseline FY 2007 water consumption). [§2(d)(i)]	Reduce water consumption intensity 2% annually through FY 2015 or 16% total reduction by the end of FY 2015 (baseline FY 2007). [§2(c)]	N/A
Ind., Landscaping, & Agr. H20 Cons.	Reduce industrial, landscaping, and agricultural water consumption by 2% annually or 20% by the end of FY 2020 (baseline FY 2010 industrial, landscaping, and agricultural consumption). [§2(d)(ii)]	Reduce water consumption intensity 2% annually through FY 2015 or 16% total reduction by the end of FY 2015 (baseline FY 2007). [§2(c)]	N/A
Water Reuse	Identify, promote, and implement water reuse strategies that reduce potable water consumption. [§2(d)(iii)]	N/A	N/A
Storm water Management	Achieve EPA's stormwater management objectives. [§2(d)(iv)]	N/A	[EISA §438]: Maintain or restore, for Federal properties over 5,000 square feet, the property's pre-development hydrology as to temperature, rate, volume, and duration of flow.
Pollution Prevention	Minimize generation of waste and pollutants through source reduction. [§2(e)(i)]	Maintain cost effective waste prevention and recycling programs. [§2(e)]	Source reduction is required through SARA Title III and waste minimization is required through RCRA generator requirements.
Solid Waste Diversion	Divert 50% of non-hazardous solid waste from disposal by the end of FY 2015. [§2(e)(ii)] Does not include diversion to waste-to-energy plants. [§7] Divert 50% of construction and demolition materials and debris from disposal by the end of FY 2015. [§2(e)(iii)]	Increase diversion of solid waste as appropriate. [§2(e)]	Increase diversion of solid waste as appropriate. [§2(e)]
Paper	Acquire uncoated printing and writing paper containing at least 30% postconsumer fiber. Reduce printing paper use. [§2(e)(iv)]	Use paper containing at least 30% postconsumer fiber content. [§2(d)]	[Solid Waste Disposal Act, § 6002 and 40 CFR Part 247]: Purchase paper with the highest amount of postconsumer fiber practicable.
Toxic Materials and Chemicals	Reduce and minimize the quantity of toxic and hazardous chemicals and materials acquired, used, and disposed by FY 2015. [§2(e)(v)]	Reduce acquisition, use, and disposal of toxic materials and chemicals. [§2(e)]	[Pollution Prevention Act]: Federal facilities are required to deploy pollution prevention as the first choice in environmental management.
Compostable & Organic Material	Increase diversion of compostable and organic material from waste streams. [§2(e)(vi)]	N/A	N/A

Landscaping Management	Implement pest management and other landscaping management practices. [§2(e)(vii)]	N/A	N/A
Chemical Use	Increase use of acceptable alternative chemicals and processes. [2(e)(viii)] Decrease chemical use to assist in achieving GHG reduction targets. [§2(e)(ix)]	Reduce acquisition, use, and disposal of toxic materials and chemicals. [§2(e)]	[Montreal Protocol]: The reduction of most ozone-depleting substances also leads to a reduction in GHGs released.
Sustainable Communities	Participate in regional transportation planning and recognize existing community transportation infrastructure. [§2(f)(i)] Align Federal policies to increase the effectiveness of local planning for energy choices such as locally-generated renewable energy. [§2(f)(ii)] Ensure planning for new facilities/leases considers pedestrian-friendly sites near existing employment centers and accessible to public transit. [§2(f)(iii)] Identify and analyze impacts from energy use and alternative energy sources in EAs and EISs for new or expanded facilities. [§2(f)(iv)] Coordinate with regional programs for Federal, tribal, state, and local ecosystem, watershed, and environmental management. [§2(f)(v)]	N/A	N/A
Energy Efficiency in New Construction and Major Renovations	Achieve by 2030 zero-net-energy in buildings entering the planning process after 2020. [§2(g)(i)]	N/A	[EPAct 2005 §109]: Achieve energy performance 30% beyond ASHRAE 90.1-2004. [EISA §433]: New Federal buildings and Federal buildings undergoing major renovations shall reduce their fossil fuel-generated energy consumption (baseline 2003) by 55% (2010), 65% (2015), 80% (2020), 90% (2025), and 100% (2030).
High Performance Sustainable Building	Ensure all new construction, major renovation, or repair and alteration complies with the Guiding Principles. [§2(g)(ii)] Ensure 15% of existing facilities and building leases (above 5,000 gross square feet) meet the Guiding Principles by FY 2015. [§2(g)(iii)] Make annual progress towards 100% conformance with the Guiding Principles. [§2(g)(iii)]	Ensure all new agency construction and renovation complies with the Guiding Principles. [§2(f)] Ensure 15% of existing Federal building inventory incorporate the Guiding Principles by 2015. [§2(f)]	[EISA §433]: Requires sustainable design principles be applied to the siting, design, and construction of buildings subject to the standards. [EISA §434]: Ensure major replacements of installed equipment, renovation, or expansion of existing space employ the most energy-efficient designs, systems, equipment, and controls life-cycle cost effective. [EISA §435]: As of December 19, 2010, Federal agencies are prohibited from leasing buildings that have not earned the ENERGY STAR® label (some exemptions apply). [EPAct 2005 §109]: Includes application of sustainable design principles for new buildings.
Advanced Metering and Measurement	N/A	N/A	[EPAct 2005 §103]: Federal buildings must be metered by October 1, 2012, with data provided at least daily and electricity consumption measured hourly. [EISA §432]: Identify "covered facilities" constituting at least 75% of the agency's facility energy use. Each covered facility must have an energy manager designated and meet additional requirements. Energy and water evaluations must be completed every 4 years for each facility. Facility energy managers are also responsible for commissioning equipment and establishing O&M plans for measuring, verifying, and reporting energy and water savings. [EISA §434(b)]: By October 16, 2016, each agency shall provide for equivalent metering of natural gas and steam.

Green Roofs	Minimize consumption of energy, water, and materials through cost-effective, innovative strategies, such as highly reflective and vegetated roofs. [§2(g)(iv)]	N/A	N/A
Building Portfolio Management	Manage existing building systems to reduce consumption of energy, water, and materials. [§2(g)(v)] Identify alternatives to renovation that reduce existing asset deferred maintenance costs. [§2(g)(v)] Identify opportunities to consolidate and dispose of existing assets, optimize real property portfolio performance, and reduce environmental impacts. [§2(g)(vi)]	N/A	N/A
Historic Buildings	Promote long-term viability of agency-owned historic buildings by ensuring that rehabilitation utilizes best practices and technologies in retrofitting. [§2(g)(vii)]	N/A	N/A
Sustainable Acquisition	Ensure 95% of new contract actions for products and services are: • Energy efficient • Water efficient • Biobased-content • Environmentally preferable • Non-ozone depleting • Recycled-content • Non-toxic or less-toxic than alternatives [§2(h)(i)]	Purchase products that are: • Recycled • Biopreferred • ENERGY STAR • FEMP designated • EPEAT • WaterSense (and other water-efficient) [§2(d)]	[EPAct 2005 §104]: Requires Federal agencies to incorporate energy efficiency criteria consistent with ENERGY STAR and FEMP designated products for all procurements involving energy-consuming products and services. [EISA §525]: Requires procurement to focus on ENERGY STAR and FEMP designated products. [EISA §524]: Encourages agencies to minimize standby energy use in purchases of energy-using equipment. NOTE: Preferences in RCRA 6002, FSRIA 9002, and EPCRA not included.
Electronics Stewardship	Ensure procurement preference for EPEAT-registered electronic products. [§2(i)(i)] Enable power management, duplex printing, and other energy-efficient or environmentally preferable features on all eligible DOE electronic products. [§2(i)(ii)] Employ environmentally sound disposition of excess or surplus electronic products. [§2(i)(iii)] Ensure procurement of ENERGY STAR and FEMP designated electronic equipment. [§2(i)(iv)] Implement best management practices inenergy-efficient management of servers and Federal data centers. [§2(i)(v)]	Ensure that 95% of agency electronic product acquisitions are EPEAT registered. [§2(h)] Enable the ENERGY STAR feature on agency computers and monitors. (§2(h)) Establish and implement policies to extend the useful life of agency electronic equipment. (§2(h)) Use environmentally sound disposal practices for electronics. (§2(h))	[EISA §431]: Reduce building energy intensity 3% annually through 2015, or 30% total reduction by 2015 (baseline 2003).
Environmental Management Systems	Continue implementation of EMSs; ensure they are maintained to achieve the goals of the E.O. [§2(j)]	Implement EMSs to support goals of E.O. [§3(b)] [See also CEQ Instructions 3/28/2007]	N/A

N/A = Not Applicable