

PAD:

Subcommittee:

Agency: Nuclear Regulatory Commission

Goal 4: Water Use Efficiency and Management

Goal 4: Goal Description

Reduce potable water use intensity by at least 26 percent and landscaping, water use by at least 20 percent by FY 2020.

Goal 4: Agency Lead

Cynthia A. Carpenter, Senior Sustainability Officer

Goal 4: Staff Resources

Currently there is no full time person for this activity. These duties are handled as collateral duties.

Goal 4: Baseline

Baseline	Baseline Year	Baseline Value	Comments
Potable Water Use (Gal/SF)	2007	19.1	
Industrial, Landscaping, and Agricultural Water Use (Thous. Gal)	2010	0	

Goal 4: Planning/Status Table

Water Use Efficiency and Management	FY10	FY11	FY12	FY13	FY14	FY15	FY16	...	FY20	FY11 Data Verification	FY11 Target Status	FY12 Target Status	Comments
Potable water reduction (% reduction from FY07 base year) TARGET	6	8	10	12	14	16	18	...	26	N/A	N/A	N/A	
Potable water reduction (% reduction from FY07 base year) PLAN	-18.3	1.5	1.5	1.5	1.5	1.5		...	26	N/A	N/A	N/A	Note: A negative indicates an

Water Use Efficiency and Management	FY10	FY11	FY12	FY13	FY14	FY15	FY16	...	FY20	FY11 Data Verification	FY11 Target Status	FY12 Target Status	Comments
													increase.
Potable water reduction (% reduction from FY07 base year) ACTUAL	-6.6	-12.7	N/A	N/A	N/A	N/A	N/A	...	N/A	Measured	No	Not on track	Note: A negative indicates an increase.
Industrial, landscaping and agricultural Water Reduction (% reduction from FY10 base year) TARGET	N/A	2	4	6	8	10	12	...	20	N/A	N/A	N/A	
Industrial, landscaping and agricultural Water Reduction (% reduction from FY10 base year) PLAN	N/A	2	2	2	2	2		...	20	N/A	N/A	N/A	
Industrial, landscaping and agricultural Water Reduction (% reduction from FY10 base year) ACTUAL	N/A	N/A	N/A	N/A	N/A	N/A	N/A	...	N/A	N/A	N/A	N/A	
Other, as defined by agency TARGET	N/A	N/A	N/A	N/A	N/A	N/A	N/A	...		N/A	N/A	N/A	

Water Use Efficiency and Management	FY10	FY11	FY12	FY13	FY14	FY15	FY16	...	FY20	FY11 Data Verification	FY11 Target Status	FY12 Target Status	Comments
Other, as defined by agency ACTUAL	N/A	N/A	N/A	N/A	N/A	N/A	N/A	...	N/A	N/A	N/A	N/A	

Goal 4: Progress Questions

Goal 4: Question 1

Estimated % of agency owned or controlled buildings that currently have meters for measuring potable water use.	Comments
91-100%	Incoming domestic water is metered as it enters the building. Additionally, the NRC submeters the makeup water to the cooling towers to determine the amount of water being used by the cooling tower and to receive a sewer credit from the water utility.

Goal 4: Question 2

Is a formal policy in place to meet the requirements of the Stormwater Guidance for Federal Facilities?	Link to policy if publicly available	Comments
No policy		

Goal 4: Challenges/Justification

ID	Title	Description	First Related Goal (if applicable)	Second Related Goal (if applicable)	Third Related Goal (if applicable)
1	Cooling Towers	We are experiencing greater than expected water usage from some of our cooling towers. We have been working with our maintenance contractor to identify and troubleshoot the problem. When the cooling towers return to normal water usage we expect a decrease in our annual potable water usage.	N/A	N/A	N/A

Goal 4: Best Practices/Highlights

Goal 4: Planning

Goal 4: Strategies

ID	Description	Strategy Type	Time-frame	Scale	Success Metrics: FY12	Success Metrics: FY13	First Re-related Goal	Second Re-related Goal	Comments
1	Monitoring the cooling towers for excessive water usage and troubleshooting the equipment.	Re-view/Analysis	FY12-FY13	Facility Level	Reduce water usage by the cooling towers and the large variations of water usage.	Consistent water usage. Reduced usage by the towers.	N/A	N/A	
2	We are currently in a multiphase restroom upgrade project in one of our facilities. The restroom fixtures are being replaced with high efficiency fixtures.	Infrastructure/Settings Change	FY13-Out-year	Facility Level	Reduced facility water usage.	Reduced facility water usage.	N/A	N/A	

Goal 5: Pollution Prevention and Waste Reduction

Goal 5: Goal Description

Divert at least 50 percent non-hazardous solid waste by FY 2015, and divert at least 50 percent construction and demolition (C&D) materials and debris by FY 2015.

Goal 5: Agency Lead

Cynthia A. Carpenter, Senior Sustainability Officer

Goal 5: Staff Resources

Currently there is no full time person for this activity. These duties are handled as collateral duties.

Goal 5: Planning/Status Table

Pollution Prevention & Waste Reduction	FY10	FY11	FY12	FY13	FY14	FY15	FY16	...	FY20	FY11 Data Verification	FY11 Target Status	FY12 Target Status	Comments
Total non-hazardous solid waste (non-C&D) (tons) ACTUAL	1066	1229	N/A	N/A	N/A	N/A	N/A	...	N/A	Measured	N/A	N/A	
Non-hazardous solid waste diversion (Non-C&D) (%) TARGET	50	50	50	50	50	50		...		N/A	N/A	N/A	
Non-hazardous solid waste diversion (Non-C&D) (%) ACTUAL	62	67	N/A	N/A	N/A	N/A	N/A	...	N/A	Measured	Yes	On track	
Total C&D material and debris (tons) ACTUAL	N/A	20	N/A	N/A	N/A	N/A	N/A	...	N/A	Estimated	Yes	On track	
C&D material & debris diversion (%) TARGET	75	75	75	75	75	75		...		N/A	N/A	N/A	
C&D material & debris diversion (%) ACTUAL	N/A	80	N/A	N/A	N/A	N/A	N/A	...	N/A	Estimated	Yes	On track	
Estimated total weight of material managed through waste-to-energy (tons) TARGET	0	0	0	0	0	0		...		N/A	N/A	N/A	
Estimated total weight of materials managed through waste-to-energy (tons) ACTUAL	N/A	N/A	N/A	N/A	N/A	N/A	N/A	...	N/A	N/A	N/A	N/A	
Number of sites or facilities with	0	0	0	0	0	0		...		N/A	N/A	N/A	

Pollution Prevention & Waste Reduction	FY10	FY11	FY12	FY13	FY14	FY15	FY16	...	FY20	FY11 Data Verification	FY11 Target Status	FY12 Target Status	Comments
on-site or off-site composting programs TARGET													
Number of sites or facilities with on-site or off-site composting programs ACTUAL	N/A	N/A	N/A	N/A	N/A	N/A	N/A	...	N/A	N/A	N/A	N/A	
Estimated total weight of materials diverted to composting (tons) TARGET	0	0	0	0	0	0		...		N/A	N/A	N/A	
Estimated total weight of materials diverted to composting (tons) ACTUAL	N/A	N/A	N/A	N/A	N/A	N/A	N/A	...	N/A	N/A	N/A	N/A	
% agency-operated offices/sites and offices located in multi-tenant buildings with a recycling program TARGET	N/A	N/A						...		N/A	N/A	N/A	
% agency-operated offices/sites and offices located in multi-tenant buildings with a recycling program ACTUAL	N/A	N/A	N/A	N/A	N/A	N/A	N/A	...	N/A	N/A	N/A	N/A	
Other, as defined by agency TARGET	N/A	N/A						...		N/A	N/A	N/A	

Pollution Prevention & Waste Reduction	FY10	FY11	FY12	FY13	FY14	FY15	FY16	...	FY20	FY11 Data Verification	FY11 Target Status	FY12 Target Status	Comments
Other, as defined by agency ACTUAL	N/A	N/A	N/A	N/A	N/A	N/A	N/A	...	N/A	N/A	N/A	N/A	

Goal 5: Progress Questions

Goal 5: Question 1

Across the agency, estimated % printing and writing paper purchased that is at least 30% postconsumer fiber.	Comments
91-100%	The NRC uses only 100 percent recycled content paper.

Goal 5: Question 2

Estimated use of integrated pest management practices across the agency.	Comments
Not tracked/Unsure	

Goal 5: Question 3

Does the agency have a current policy to address management of toxic/hazardous chemicals?	Link to policy if publicly available	Comments
Yes		

Goal 5: Question 4

How do the agency's landscaping policies respond to the CEQ Guidance on Sustainable Practices for Designed Landscapes?	Link to policy if publicly available	Comments
No policy		

Goal 5: Challenges/Justification

Goal 5: Best Practices/Highlights

Goal 5: Planning

Goal 5: Strategies

Goal 6: Sustainable Acquisition

Goal 6: Goal Description

Ensure 95% of all new contracts, including non-exempt contract modifications, require products and services that are energy efficient, water efficient, bio-based, environmentally preferable, non-ozone depleting, contain recycled content, non-toxic or less toxic alternatives.

Goal 6: Agency Lead

Cynthia A. Carpenter, Senior Sustainability Officer

Goal 6: Staff Resources

The development and implementation of this plan is supported by one employee. The actual implementation of this green requirement goal is undertaken by Contracting Officers and Contract Specialists working in collaboration with the lead in meeting requirements as established by EO 13423 and EO 13514.

Goal 6: Planning/Status Table

Sustainable Acquisition New Contract Action Review	3rd QTR FY 11	4th QTR FY 11	1st QTR FY 12	2nd QTR FY 12	3rd QTR FY 12 (Planned)	4th QTR FY 12 (Planned)	Comments
Total # New agency contract actions	32	103	16	41	22	75	Estimated numbers of actions for the 3rd & 4th quarters of FY11 were based on the agency's Advanced Procurement Plan (APP) and represented current estimates at the time. The estimated actions reported previously was 46 for 3rd QTR FY11 and 30 for 4th QTR FY11. The final figures were 32 actions for 3rd QTR FY11 and 103 actions for 4th QTR FY11.
Total # new contract actions eligible for review	8	30	10	7	3	12	
Total # eligible contract actions reviewed (at least 5% of eligible contracts)	2	7	2	2	N/A	N/A	

Sustainable Acquisition New Contract Action Review	3rd QTR FY 11	4th QTR FY 11	1st QTR FY 12	2nd QTR FY 12	3rd QTR FY 12 (Planned)	4th QTR FY 12 (Planned)	Comments
# of contract actions including sustainability requirements	1	2	2	2	N/A	N/A	
% of reviewed contract actions that include sustainability requirements	50	29	100	100	N/A	N/A	

Goal 6: Contract Action Identification Explanation

The methodology for selecting contracts for review was based on a random sample generated from FPDS-NG and no dollar threshold was stipulated. The descriptions for the selected contract actions were reviewed for relevancy to environmental programs (i.e., EnergyStar®, etc.) and a host of contracts were subsequently excluded from the review due to inapplicability. During the review process, the reviewer attempted to secure as many physical contract files as possible. Of the twenty-eight (28) contract files identified, the reviewer selected thirteen (13) of those files for environmental review (meeting the 5% review requirement threshold). The reviewer determined that seven (7) contract files included some type of green instructions, language, FAR clause, or other pertinent information; thereby meeting the minimum requirements for environmental compliance. However, six (6) contract files did not contain any green language or information. Therefore, the green compliance level for the agency is estimated at 54% (7 of 13 contract files), based upon this modified sample size.

Goal 6: Progress Questions

Goal 6: Question 1

---	Date of most recent version of the agency's formal affirmative procurement program (APP) [MM/YY]	Link if Publicly Available	Comments
.	09/05		The date of the most recent APP Plan is September 2005 and is available on the agency's intranet site only. However, a 2012 revised (draft) APP Plan is currently under review and is expected to be approval by July 2012.

Goal 6: Question 2

Question	Answer	Comments
Does the agency APP or other agency policy or procedures include activities for workforce awareness and appropriate management techniques? If yes, indicate which of the following is included.	Yes	
If the answer is "yes" in row 1, is the following is included: Training is provided for agency staff involved in purchasing and acquisition (program officials, requiring officials, contract specialists, contracting officers, COTRs, purchase card holders)?	Yes	In January 2012, a requirement was established for contracting officers and contract specialists to take mandatory on-line green purchasing training which included completion of a USDA BioPreferred(R) training course and a general green purchasing course. Acquisition employees are expected to understand and implement Acquisition Instructions, namely #2011-09 " Green Purchasing.
If the answer is "yes" in row 1, is the following is included: Policies/procedures for ensuring incorporation of sustainable acquisition requirements into agency procurements (Specifications reviews, Fed-BizOp notifications, model contract language, etc.)?	Yes	Currently, Acquisition Instruction #2011-09 serves as policy at the division level to implementing green purchasing requirements. The new APP Plan will serve as the primary guidance for the agency to follow, and will include model contract language.
If the answer is "yes" in row 1, is the following is included: Procedures for regularly monitoring, measuring, reporting, and reviewing progress against green purchasing/sustainable acquisition objectives?	No	However, the agency does periodically review contract files for environmental compliance and intends to expand its efforts in FY13.
If the answer is "yes" in row 1, is the following is included: Schedule for updating the green purchasing plan, policies or procedures or a commitment to do so as needed?	No	However, the agency has designated a policy staff member to monitor green purchasing in the Division of Contracts responsible for making improvements in this area, including updating the APP Plan.

Goal 6: Challenges/Justification

ID	Title	Description	First Related Goal (if applicable)	Second Related Goal (if applicable)	Third Related Goal (if applicable)
1	Goal 6	The NRC will create a new local contract clause that addresses the 95 percent green requirement to be included in all solicitations and contracts. Status: This action item was completed with the approval	N/A	N/A	N/A

ID	Title	Description	First Related Goal (if applicable)	Second Related Goal (if applicable)	Third Related Goal (if applicable)
		of Acquisition Instruction 2011-09 " Green Purchasing, which provided guidance for solicitations and established a new Section H contract clause entitled Green Purchasing (JUNE 2011). The contract clause is required in all solicitation and contracts (including task/delivery orders and purchase orders), for commercial and non-commercial items/contracts. The agency's acquisition system, AAMS (Automated Acquisition Management System) auto-populates the clause. However, from the time the clause was approved in June 2011 to the time it took for the AAMS contractor to incorporate the language into the acquisition system software, months had elapsed so FY11 contracts did not include the clause.			
2	Goal 6	By July 30, 2012, the NRC will provide or facilitate annual green purchasing training for agency acquisition professionals. Status: The agency attempted to arrange in-person training, but could not due to scheduling conflicts. However, the agency did develop an informal, on-line training in December 2011 that was implemented by January 2012. As a result, approximately 60 employees (including several CORs from regional offices) received basic green training for Federal environmental programs and related topics.	N/A	N/A	N/A
3	Goal 6	Periodic file reviews will be conducted to encourage and compel compliance with environmental laws and regulations. Status: The Division of Contracts periodically reviewed contract files for environmental compliance and essentially used the new June 2011 Acquisition Instruction to compel compliance. It is expected that the new (revised) APP Plan will have a much greater impact throughout the agency to improve awareness of and adherence to environmental laws, regulations and E.O.s when purchasing affected products and services.	N/A	N/A	N/A

Goal 6: Best Practices/Highlights

Goal 6: Planning

Goal 6: FY13 Targeted Areas for Improvement

Area	Targeted in FY13	Comments
Construction, Renovation, or Repair		
Laundry Services		

Area	Targeted in FY13	Comments
Building Operations and Maintenance		
Cafeteria Operations		
Landscaping Services		
Meetings and Conference Services		
Pest Management		
Building Interiors/Furniture		
Electronic Equipment		
Janitorial Services		
USDA Biobased / Biopreferred Acquisition		
Other (describe in comments)		

Goal 6: Strategies

ID	Description	Strategy Type	Time-frame	Scale	Success Metrics: FY12	Success Metrics: FY13	First Related Goal	Second Related Goal	Comments
1	Awareness and Training	Training/Education/Awareness	FY12-FY13	National	- Revised APP Plan - Attendance at outreach functions - Guidance issued	- New mandatory green purchasing training requirement - Non-monetary awards given	N/A	N/A	

Goal 7: Electronic Stewardship and Data Centers

Goal 7: Goal Description

All equipment in the NRC Production Data Center is used in an environmentally friendly and responsible way, both in keeping with executive orders as well as OMB Federal Data Center Consolidation Initiative guidelines. As a general rule, Data Centers consume large amounts of energy to both power the equipment as well as maintain the temperature and humidity at optimal levels. The NRC will continue to work towards improved monitoring of power consumption as well as reducing energy usage in the Data Center through both the use of more energy efficient equipment as well as using new technologies such as server virtualization.

Goal 7: Agency Lead

Cynthia A. Carpenter, Senior Sustainability Officer

Goal 7: Staff Resources

Currently, the NRC has a full-time Federal employee dedicated to managing the NRC Data Center; however, power utilization is a minor component of their duties.

Goal 7: Planning/Status Table

Electronic Stewardship & Data Centers	FY10	FY11	FY12	FY13	FY14	FY15	FY16	...	FY20	FY11 Data Verification	FY11 Target Status	FY12 Target Status	Comments
% of covered electronics acquisitions that are FEMP-designated and ENERGY STAR qualified TARGET	100	100	100	100	100	100	100	...		N/A	N/A	N/A	
% of covered electronics acquisitions that are FEMP-designated and ENERGY STAR qualified ACTUAL	100	100	N/A	N/A	N/A	N/A	N/A	...	N/A	Measured	Yes	On track	
% of covered electronic product acquisitions that are EPEAT-registered TARGET	85	85	85	85	85	85		...		N/A	N/A	N/A	
% of covered electronic product acquisitions that are EPEAT-registered ACTUAL	85	85	N/A	N/A	N/A	N/A	N/A	...	N/A	Estimated	Yes	On track	
% of eligible PC, laptops, and monitors with power management actively implemen-	55	65	75	80	80	80		...		N/A	N/A	N/A	

Electronic Stewardship & Data Centers	FY10	FY11	FY12	FY13	FY14	FY15	FY16	...	FY20	FY11 Data Verification	FY11 Target Status	FY12 Target Status	Comments
ted and in use TARGET													
% of eligible PC, laptops, and monitors with power management actively implemented and in use ACTUAL	55	65	N/A	N/A	N/A	N/A	N/A	...	N/A	Estimated	Yes	On track	
% of agency, eligible electronic printing products with duplexing features in use TARGET	10	75	80	85	90	95		...		N/A	N/A	N/A	
% of agency, eligible electronic printing products with duplexing features in use ACTUAL (estimate if needed)	15	75	N/A	N/A	N/A	N/A	N/A	...	N/A	Estimated	Yes	On track	
% of electronic assets covered by sound disposition practices TARGET	100	100	100	100	100	100		...		N/A	N/A	N/A	
% of electronic assets covered by sound disposition practices ACTUAL	100	100	N/A	N/A	N/A	N/A	N/A	...	N/A	Measured	Yes	On track	
% of agency data centers independently metered, advanced metered, or sub-metered to	0	0	66	66	100	100		...		N/A	N/A	N/A	

Electronic Stewardship & Data Centers	FY10	FY11	FY12	FY13	FY14	FY15	FY16	...	FY20	FY11 Data Verification	FY11 Target Status	FY12 Target Status	Comments
determine monthly (or more frequently) TARGET													
% of agency data centers independently metered, advanced metered, or sub-metered to determine monthly (or more frequently) ACTUAL	0	0	N/A	N/A	N/A	N/A	N/A	...	N/A	N/A	Yes	On track	
Reduction in the number of agency data centers TARGET	0	0	0	0	1	1		...		N/A	N/A	N/A	
Reduction in the number of agency data centers ACTUAL	0	0	N/A	N/A	N/A	N/A	N/A	...	N/A	N/A	N/A	N/A	
% of agency data centers operating with an average CPU utilization greater than 65% TARGET	5	25	40	55	55	55		...		N/A	N/A	N/A	
% of agency data centers operating with an average CPU utilization greater than 65% ACTUAL	0	0	N/A	N/A	N/A	N/A	N/A	...	N/A	Measured	No	Not on track	
Maximum annual weighted average Power Utilization Effectiveness	3	2.9	2.5	2.5	1.8	1.6		...		N/A	N/A	N/A	

Electronic Stewardship & Data Centers	FY10	FY11	FY12	FY13	FY14	FY15	FY16	...	FY20	FY11 Data Verification	FY11 Target Status	FY12 Target Status	Comments
(PUE) for agency. (#) TARGET													
Maximum annual weighted average Power Utilization Effectiveness (PUE) for agency. (#) ACTUAL	3.1	3.03	N/A	N/A	N/A	N/A	N/A	...	N/A	Estimated	No	Not on track	
Other, as defined by agency TARGET	N/A	N/A	N/A	N/A	N/A	N/A	N/A	...	N/A	N/A	N/A	N/A	
Other, as defined by agency ACTUAL	N/A	N/A	N/A	N/A	N/A	N/A	N/A	...	N/A	N/A	N/A	N/A	

Goal 7: Challenges/Justification

Goal 7: Best Practices/Highlights

Goal 7: Planning

Goal 7: Strategies

Goal 8: Agency Innovation & Government-Wide Support

Goal 8: Goal Narrative

II. ROI Reporting

ROI Reporting

No agency projects or initiatives included in the submission of the previous year’s Sustainability Plan have been deliberately cancelled or suspended due to a lower than expected ROI. Likewise, no agency projects or initiatives have been expanded due to a higher than expected ROI.

III. Climate Change Adaptation Planning

Agency Climate Change Adaptation Policy Statement




UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

U.S. NUCLEAR REGULATORY COMMISSION
CLIMATE CHANGE ADAPTATION POLICY STATEMENT
June 2, 2011

The U.S. Nuclear Regulatory Commission's (NRC) mission is to license and regulate the Nation's civilian use of byproduct, source, and special nuclear materials, to ensure adequate protection of public health and safety, to promote the common defense and security, and to protect the environment.

It is the policy of NRC to carry out its operations in such a way as to maintain a safe and healthy work environment for building occupants. The NRC will ensure that adequate building services are provided to maintain optimum operational readiness to conduct our mission. The NRC recognizes that planning for climate change in conjunction with meeting energy usage and greenhouse gas reduction targets will aid the Federal government in reducing the consequences of climate changes caused by our operations.

The NRC adaptation planning and implementation resources are integrated into the mission of the Office of Administration and will be directed through the Division of Facilities and Security. Actions taken will be done in coordination with other Federal agencies.


Kathryn O. Greene
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Adaptation Planning

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Responsible Senior Official

Cynthia A. Carpenter, Senior Sustainability Officer

Climate Change Science/Information Sources

Data and Information Needs

Type of Data or Information Need	Ranking (HP or Not)
Monitoring and data needs, including at local scales (including information about current and past weather and climate)	Not
Scenarios of possible climate futures and integration with existing management models	HP
Better predictive models of climate impacts in specific regions or scales	HP
Guidance on the use of downscaled global climate models and related data	Not
Improved understanding of specific Earth system processes	Not
Information about how global climate change models can be linked to local components of your agency's missions or operations	Not
Information about how to estimate and evaluate the costs and benefits of specific adaptation options (or the costs of inaction)	HP

Collaboration and Communication Needs

Type of Collaboration or Communication Need	Ranking (HP or Not)
Improved public education materials, curriculum, tools related to climate change (including impacts)	Not
Easy to understand indicators of change	HP
Better early warnings	Not
Non-technical tools to discuss climate models, their assumptions and projections, and their appropriate applications	HP
Decision-support tools to help address climate-related decision-making under uncertainty	Not
Centralized clearinghouse for climate change information	HP
Information about best adaptation practices, including local case studies	HP

Other Climate Change Science/Information Needs