

May 29, 2001

The Honorable Spencer Abraham
Secretary of Energy
Washington, D.C. 20585

Dear Mr. Secretary:

I am responding to the May 3, 2001, Presidential Memorandum directing agencies to conserve energy at their facilities. Let me assure you at the outset that the Nuclear Regulatory Commission (NRC) supports the President's energy conservation goals. The NRC operates and maintains two buildings, housing approximately 2,000 staff in Rockville, Maryland: the One White Flint North building (OWFN), a Federal building, and the Two White Flint North building (TWFN), a leased building. Together, the buildings contain about 1 million square feet of space. We also occupy smaller leased office spaces in or near Atlanta, Philadelphia, Chicago, Chattanooga, and Arlington, Texas. These are multi-tenant facilities managed by others.

Since assuming operational responsibility for OWFN (in 1989) and TWFN (in 1995), we have made a concerted effort to operate the NRC headquarters buildings in an energy-efficient manner. For example, we maximize the use of heat exchangers, in lieu of chillers, to obtain "free cooling"; we adjust our building operating temperature to be 78 degrees at the top of the summer cooling band and 68 degrees at the bottom of the winter heating band; and we reduce the number of garage fans operating during nonpeak hours. We have implemented other energy conservation measures, such as installing motion sensors in restrooms and elevator lobbies to turn lights on and off as needed, replacing incandescent exit signs with fluorescent exit signs, reducing lighting levels in the main lobbies, and developing an employee awareness program to encourage employees to turn off lights and computers at the end of the workday.

Since March 2000, we have also performed energy audits for both headquarters buildings to identify additional energy conservation measures. We are in the process of implementing some recommendations from these audits, including installing more energy efficient lights and motion sensors to reduce energy consumption. In addition to these initiatives, we participate in the Potomac Electric Power Company's load curtailment program to reduce energy consumption during peak demand periods.

Enclosed you will find our report on Energy Conservation at Federal Facilities in the format prescribed by Department of Energy's Federal Energy Management Program. We will continue to look for other opportunities to reduce energy consumption at our facilities in support of the President's energy conservation program.

Sincerely,

/RA/

Richard A. Meserve

Enclosure: As stated

PRESIDENTIAL DIRECTIVE ON ENERGY CONSERVATION AT FEDERAL FACILITIES

U.S. Nuclear Regulatory Commission Submission

I MANAGEMENT AND ADMINISTRATION

A. Energy Management Infrastructure

1. Senior Agency Official

Patricia G. Norry, Deputy Executive Director for Management Services, serves as the Senior Energy Official. Mrs. Norry's responsibilities consist of developing policies and procedures for the agency's energy reduction program.

2. Agency Energy Team

An agency energy team was established in FY 2000 consisting of procurement, legal, budget, management, and technical representatives. The team is responsible for the development, award, and oversight of a Utility Energy Services Contract (UESC) which will be awarded to PEPCO Energy Services in FY 2001. PEPCO Energy Services will implement energy conservation measures at the One White Flint North (OWFN) and Two White Flint North (TWFN) buildings. Members of the energy team are as follows:

NAME	OFFICE	RESPONSIBILITY
Louis Fisher	Office of Administration	Management/Technical
William Foster	Office of Administration	Budget
Thomas Martin	Office of Administration	Management/Technical
Kenneth McDow	Office of Administration	Management/Technical
Brian Kildee	Office of General Counsel	Legal
Stephen Pool	Office of Administration	Procurement
James Luehman	Office of Enforcement	Technical
John Voglewede	Office of the Chief Information Officer	Management
Robert Willcoxon	Office of the Chief Financial Officer	Budget
Thomas Wolf	Office of Nuclear Regulatory Research	Technical/Union Representative

B. Management Tools

1. Awards

The agency's award program will be used to reward exceptional performance in implementing the agency's energy reduction program.

2. Performance Evaluation

Performance plans and evaluations for the Senior Energy Official take into account programmatic responsibility for implementation of the energy reduction program. Position descriptions and performance evaluations for the Facilities/Energy Managers incorporate appropriate provisions for energy reduction. Members of the energy team who are not Facilities/Energy Managers are serving in an advisory capacity and thus their position descriptions and performance evaluations do not include such provisions. However, each member of the team is familiar with the objectives of the energy reduction program. The collective knowledge and expertise of these individuals is helping to ensure the successful implementation of the program.

3. Training and Education

Members of the energy team attended the Department of Energy's (DOE) Interagency Task Force meetings and training on Super Energy Performance Contracts.

4. Showcase Facilities

NRC did not designate any buildings as Showcase Facilities.

II IMPLEMENTATION STRATEGIES

A. Life-Cycle Cost Analysis

In FY 2000, preliminary energy audits were conducted at OWFN and TWFN to identify potential energy conservation projects. A simple payback analysis was performed to determine if proposed projects warranted further consideration. In FY 2001, NRC will conduct comprehensive, investment grade energy audits to identify energy conservation projects. To determine which proposed projects are most cost effective, the NRC will apply the following DOE approved life-cycle analytical software tools during the comprehensive audit:

- The Building Life-Cycle Cost Program
- The Facility Energy Decision System
- The Lighting Technology Screening Matrix

B. Facility Energy Audits

In FY 2000, two preliminary energy audits were conducted at OWFN and TWFN. This represents 100 percent of the NRC facilities inventory which require energy audits. Comprehensive energy audits for OWFN and TWFN will be conducted in FY 2001.

C. Financing Mechanisms

In FY 2000, NRC entered into an Interagency Agreement and Memorandum of Understanding with DOE to facilitate the award of a Super-Energy Savings Performance Contract (SESPC). DOE's Mid-Atlantic Region contractor, Environmental Resources, Inc. (ERI), conducted a preliminary energy audit at OWFN, a Federal building, to identify potential energy conservation measures (ECMs). TWFN, a leased building, was excluded from the preliminary audit because leased buildings are prohibited from participating in the SESP program. ERI identified the following potential ECMs at OWFN:

- energy management system upgrade
- lighting upgrade
- plug load management
- water saving toilets
- solar window film

DOE regulations do not permit implementation of water conservation projects under the SESP program. Therefore, the water savings toilets were deleted from ERI's proposal. The financial analysis of the remaining projects resulted in a 20-year maximum finance term and a negative cash flow each year, making the project not self-funding.

ERI was asked to prepare a financial proposal to address the lighting upgrade and the plug load management ECMs. Even though the proposal indicated that a small project developed to address these two ECMs would be self funding, it would result in an 18 year finance term to accommodate the overhead of ERI. This long payoff for such a small project was not acceptable to the NRC. Therefore, the Interagency Agreement and Memorandum of Understanding were canceled.

In FY 2000, PEPCO Energy Services, Inc., the GSA Area-Wide Utility Energy Services contractor conducted a preliminary energy audit at TWFN, a leased building, to identify potential ECMs. PEPCO identified the following ECMs as potential projects:

- variable frequency drives on cooling towers
- power improvement devices on motors
- lighting upgrade
- occupancy sensors
- water saving toilets

NRC FY 2001 strategy is to authorize PEPCO to perform a preliminary and comprehensive energy audit of OWFN, perform a comprehensive energy audit of TWFN, and implement self-funding projects.

D. ENERGY STAR and Other Energy-Efficient Products

NRC is not responsible for the construction of buildings. However, all specifications for renovation projects performed by NRC are developed to ensure that, when applicable, energy efficient equipment and systems are incorporated into the renovation design. Additionally, the building operation and maintenance contract specifications for OWFN and TWFN have been updated to ensure that all building support replacement products and components are energy efficient. The NRC's Affirmative Procurement Program for Recovered Materials provides Internet links to on-line training for Federal purchase card users on ENERGY STAR acquisitions and other energy efficient products.

E. ENERGY STAR Buildings

OWFN and TWFN have not met the ENERGY STAR building criteria.

F. Sustainable Building Design

NRC is not responsible for the design or construction of Federal facilities.

G. Energy Efficiency in Lease Provisions

NRC is not responsible for the formulation or negotiation of leases. GSA serves as the leasing agent for all NRC facilities. However, prior to the execution of new leases, renegotiations, or extension of existing leases, NRC will request the opportunity to review all proposed lease documents to ensure that they are preferably a certified ENERGY STAR building.

H. Industrial Facility Efficiency Improvements

NRC does not occupy any industrial facilities.

I. Highly Efficient Systems

No combined cooling, heating, and power systems were identified in the preliminary audits and none are planned to be installed. The unavailability of cost effective technology precludes NRC from implementing this energy conservation strategy. Biomass, geothermal, and other natural energy sources are not available.

J. Off-Grid Generation

No off-grid generation systems are planned. Off-grid generation systems such as solar hot water, solar electric, small wind turbines, and fuel cells were evaluated during a preliminary energy audit and considered economically infeasible.

K. Electrical Load Reduction Measures

NRC participates in the PEPCO Load Curtailment Program. During high demand periods, NRC, at the request of PEPCO, reduces its energy load by securing non-critical building support equipment. Additionally, an employee awareness program is in place which encourages employees to secure extraneous appliances at work stations during high demand periods.