

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

October 23, 1998

The President The White House Washington, D.C. 20500

Dear Mr. President:

On behalf of the Commission, I am responding to your memorandum dated July 25, 1998, to Heads of Executive Departments and Agencies concerning cutting greenhouse gases through energy savings performance contracts.

The Nuclear Regulatory Commission has taken several actions to reduce annual energy consumption consistent with Executive Order 12902 and the goals set forth in the Energy Policy Act of 1992 (EPACT, P.L. 102-486). These actions are detailed in the enclosed Summary of Energy Savings and Energy Savings Initiatives.

Please contact me if additional information is needed.

Respectfully,

Shirley Ann Jackson

Enclosure: As stated

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## U.S. NUCLEAR REGULATORY COMMISSION

## SUMMARY OF ENGREY SAVINGS AND ENERGY SAVINGS INITIATIVES

Item 1. Detail your agency's accomplishments in reducing energy consumption since 1985, and your plans to reduce energy consumption by 30 percent below 1985 levels by 2005, in compliance with Executive Order 12902.

The NRC uses Fiscal Year (FY) 1989 and FY 1995 as the base years to report energy consumption comparisons for its One White Flint North (OWFN) and Two White Flint North (TWFN) buildings, respectively. These fiscal years represent the first years of full NRC occupancy of these buildings. In conformance with the guidance provided by the Department of Energy's Federal Energy Management Program, the NRC's yearly goal to reduce energy consumption in each of its buildings is 1.5 percent. The NRC's 16-year goal for OWFN is to reduce energy consumption by 24 percent below OWFN's 1989 level. Our 10-year goal for TWFN is to reduce energy consumption by 15 percent below TWFN's 1995 level.

The OWFN energy-consumption records show an average 2.3 percent yearly energy-consumption reduction below this building's FY 1989 base year. TWFN energy-consumption records do not reflect a reduction below this building's FY 1995 base year. In FY 1996, TWFN energy consumption was 6.6 percent above the building's FY 1995 base year. We attribute this rise to the harsh winter of that year, and the need to complete engineering design changes to correct the TWFN building deficiencies that were identified in FY 1995. The last of these changes were completed in FY 1997. As a result of these engineering and system design changes, we anticipate that the TWFN FY 1998 energy-consumption records will reflect an energy reduction below the building's base year.

Apart from correcting the original building design deficiencies mentioned above, the NRC's Energy Management Implementation Plan for both buildings has helped us make continual strategic improvements to our heating, electrical, and other systems. Under this plan, which is updated annually, we have done the following:

- used an automated energy-management system to maximize the energy efficiency of the heating, ventilation, and air conditioning equipment and systems;
- used occupancy sensors to control interior lighting;
- implemented an employee-awareness program to include turning off lights when they are not in use;
- participated in the Potomac Electric Power Company's voluntary load-curtailment program;

- used HVAC-free cooling (heat exchanger technology);
- reduced chiller operations;
- used energy-efficient design technologies in construction and space renovations;
- instituted Quality Assurance inspections and Quality Control procedures to identify and correct wasteful and/or energy-inal cient operating practices;
- enhanced water treatment and filtering to improve energy-efficient equipment operations;
- used wa'er-management conservation technology;
- installed energy-efficient light bulbs and fixtures, including replacement of incandescent bulbs with compact fluorescent bulbs; and
- implemented commercial facilities-management contract requirements to conserve energy through prudent equipment operating and maintenance procedures.

Item 2. Detail your agency's plans to use Energy Savings Performance Contracts (ESPC) and other tools, as well as your plans to achieve ENERGY STAR labels for your facilities as part of your increased attention to saving money through energy efficiency and renewable energy.

The NRC initiated an energy audit with the local utility in FY 1998 and identified specific energy retrofits for both of its buildings, e.g., installation of energy-efficient ballasts, exit signs, and high-efficiency motors. The NRC also completed a one-page screening tool prepared by the Federal Energy Management Program to assist all agencies in evaluating the potential effectiveness of an ESPC to meet their energy-reduction goals. Although the results of this screening tool indicated that the NRC may benefit from an ESPC, the low estimated cost of some repairs indicated that NRC's participation in a utility-incentive program may be a viable alternate means to reduce energy costs. The NRC plans to compare the financial incentives offered through the Super ESPC for the mid-Atlantic Region with the financial incentives offered through our local utility to determine the best vehicle to achieve the energy-conservation measures identified in the energy audit.

The NRC actively supports measures that will enable us to achieve an ENERGY STAR label for each NRC building. Such measures include, but are not limited to the following:

- Continuing strategic improvements to heating, electrical, and other systems as identified in NRC's Energy Management Implementation Plan. These improvements have been described under Item 1.
- Initiating an energy-conservation awareness campaign among NRC employees in FY 1999. This campaign will include disseminating energy-conservation information through NRC's Network Announcement Enthroned Web Site, encouraging employees to turn off task lights and computers when leaving their offices, and discouraging individual space heaters and coffee makers. The NRC also will place Department of Energy—approved posters and other print information in strategic locations, e.g., lobbies, cafeterias, and the credit union, to reinforce energy-conservation measures employees can take at the office.

- Acquiring energy-efficient products, e.g., Energy Star-rated personal computers, in accordance with Federal Acquisition Regulation (FAR) 23.704. This new FAR provision directs that agencies "shall implement cost-effective contracting preference programs favoring the acquisition of...products that are in the upper 25 percent of energy efficiency for all similar products."
- Requiring all contractor-furnished property provided under our agency's facilities—
  management contract to be the most beneficial to the environment, e.g., use of nonaerosol products in lieu of aerosol products and use of supplies that contain the highest
  percentage of recovered materials practicable.

Item 3. Detail your agency's proposals on how to expand the Federal Government's use of ESPCs (to be included in the President's request to Congress to extend ESPC authority beyond the year 2000).

We recommend that all regional Super ESPCs allow Federal agencies to order services and equipment on-line through the Internet. This on-line ordering mechanism may have great potential to further reduce procurement lead time and expand the Federal Government's use of this contract vehicle.

Item 4. Detail your strategy for encouraging use of ESPCs and other financing mechanisms to install renewable energy production systems — such as those called for in the Million Solar Hoofs Initiative.

NRC's relatively new high-rise buildings have state-of-the-art, energy-efficient electrical equipment and systems. The NRC has installed photovoltaic control systems for our outside lighting. At this time, the NRC does not plan to use ESPCs and other financing mechanisms to acquire renewable energy production systems such as those called for in the Million Solar Roofs Initiative.

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THE WHITE HOUSE WASHINGTON July 25, 1998

MEMORANDIM FOR THE HEADS OF EXECUTIVE DEPARTMENTS AND AGENCIES

REC'D BY SECT

SUBJECT:

Cutting Greenhouse Gases through Energy Savings Performance Contracts

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My Administration has made addressing the threat of global climate change one of our top environmental priorities. As the Nation's largest consumer of the fossil fuels that scientists believe are driving global warming, the Federal Government has a special responsibility to lead in developing clean energy solutions and in reducing Federal energy consumption. While Government-wide energy caving activities over the last several years have resulted in significant achievements, we can and should do more.

On March 9, 1994, I issued Executive Order 12902, Energy Efficiency and Water Conservation at Federal Facilities, which directed all executive agencies to reduce energy consumption 30 percent below 1985 levels by the year 2005. We have made significant strides, but in order to achieve this goal we must make better use of a critical energy management tool. Energy Saving Performance Contracts (ESPCs), which are authorized under the National Energy Conservation Policy Act, as modified by the Energy Policy Act of 1992, provide significant opportunities for making Federal buildings more energy efficient at little or no cost to taxpayers. Under ESPC authority, agencies can contract with private energy service companies to retrofit Federal buildings with no up-front payments by the Government. These companies recover their costs from a negotiated share of the energy cost savings, with the remaining savings being returned to the contracting agency and to taxpayers. The Federal Government must make more use of these highly cost-effective contracts.

I therefore direct all Federal agencies to maximize use of this cuthority by the year 2000, when the authority expires. I also direct the Departant of Energy (DOE) to lead an interagency effort to develor a legislative proposal extending ESPC authority past the year 2000. As part of this effort, I direct all agencies to identify and propose areas for expansion of ESPC authority - for instance, as appropriate, to some leased buildings, mobility, and other Federal assets. In addition, I direct agencies to propose ways to procure electricity produced using cost-effective renewable sources.

While ESPC authority has existed for some time, I have encouraged significant steps to streamline and promote greater use of this tool. To this end, the DOE and the Department of Defense (DOD) have negotiated contracts with energy service companies over most regions of the country. These ESPCo currently allow up to \$5 billion worth of projects at Federal facilities within these regions. The DOE and the DOD anticipate that by the end of this year they will negotiate contracts allowing an additional \$2.7 billion worth of such work in specific regions. The combined \$7.7 billion provides, in effect, the total dollar amount of retrofit projects that Federal agencies can complete at their facilities using ESPCs. In addition, the DOE anticipates negotiating over \$1 billion for ESPCs to finance the installation of renewable energy and other efficient technology systems in the near future.

To further compliance with this directive, I have asked the Office of Management and Budget to provide new guidance to agencies that will help remove barriers and provide more incentives for using ESPCs. This guidance will change the budgetary treatment of these contracts to be consistent with the unique statutory authority for ESPCs. Specifically, the full amount of budget authority for the contract will no longer be needed up front, but can be made available over a number of years. In addition, this guidance will encourage agencies to permit up to 50 percent of the energy savings from ESPCs to remain at the facility or site where they occur. Both of these policies will help motivate Federal energy managers to make greater use of ESPCs and reduce agency operating costs.

To make use of this authority, Federal facilities need to contact the DOE or the DOD to engage contractors already preapproved to complete ESPC work. Agencies can also consider using direct appropriations or contract with their local utilities. I also direct Federal agencies to maximize efforts to earn an ENERGY STAR label, demonstrating to the public that they rank in the top 25 percent for building energy efficiency. Combining energy savings contracting authority with utility

programs and agency funded efforts can save taxpayers as much as one billion dollars a year in energy costs over the next 15 years, and can reduce greenhouse gas emissions by up to 3 million metric tons of carbon annually.

To ensure the full use and benefits of ESPC authority, I further direct each executive agency to submit to me, in the next 90 days, a memorandum detailing:

- 1. Your agency's accomplishments in reducing energy consumption since 1985, and your plans to reduce energy consumption 30 percent below 1985 levels by 2005, in compliance with Executive Order 12902;
- Your agency's plans to use ESPCs and other tools, as well as your plans to achieve ENERGY STAR labels for your facilities, as part of your increased attention to saving money through energy efficiency and renewable energy;
- 3. Your proposals on how to expand the Federal Government's use of these tools, for inclusion in our request to the Congress for extending ESPC authority beyond the year 2000; and
- 4. Your strategy for encouraging use of ESPCs and other financing mechanisms to install renewable energy production systems -- such as those called for in the Million Solar Roofs Initiative.

William J. Christon