November 19, 2009

The Honorable Thomas R. Carper
Chairman, Subcommittee on Clean Air
and Nuclear Safety
Committee on Environment and Public Works
United States Senate
Washington, D.C. 20510

Dear Mr. Chairman:

On behalf of the U.S. Nuclear Regulatory Commission (NRC), I am pleased to submit the NRC's semiannual report on the status of its licensing and other regulatory activities, as required by the Fiscal Year (FY) 2008 Energy and Water Development Appropriations Act 110-185. The enclosed report covers the period April through September 2009. I am also providing in this cover letter additional information in order to keep you fully and currently informed of NRC's regulatory activities.

During the period covered by this report, the NRC continued to work on a range of licensing activities beyond commercial nuclear power plant licensing. On May 29, 2009, the NRC renewed the independent spent fuel storage installation (ISFSI) license for Oconee Nuclear Station for 40 years. The NRC also issued license renewals for Global Nuclear Fuels - America and AREVA-Richland. These renewals were the first fuel facility renewals issued for a 40-year period. The NRC also accepted for review the renewal application for Nuclear Fuel Services. In addition, the NRC renewed the National Institute of Standards and Technology's (NIST's) research reactor license for an additional 20 years. The NIST facility, the largest research and test reactor (RTR) under NRC oversight, is now licensed until July 2, 2029. The NRC oversees 32 RTRs, the majority of which are currently under review for license renewal.

On August 6, 2009, the NRC accepted an application from General Electric-Hitachi Global Laser Enrichment for a license to construct and operate a laser-based uranium enrichment facility. The NRC staff completed an initial acceptance review and determined that the application is sufficiently complete for the agency to begin its safety reviews. The agency anticipates the safety review and adjudicatory hearing process will take approximately 30 months. In the coming weeks, the agency will publish in the *Federal Register* a notice of opportunity to request a hearing on this application before the NRC's Atomic Safety and Licensing Board.

The agency also pursued a number of rulemaking activities during the second half of FY 2009 beyond those specifically addressed in the enclosed report. These activities included a proposed rule published in June that would amend NRC's environmental protection regulations and a draft revision of the "Generic Environmental Impact Statement for License Renewal of Nuclear Plants." The proposed rule revisions redefine the number and scope of environmental impact issues that must be addressed in a license renewal review. The effort is

based on a Commission intention to review and update the rule as necessary on a 10-year cycle. A series of public meetings on this effort began in September and will carry over to FY 2010. In early October 2009, the agency extended the public comment period on this proposal for an additional 90 days.

On August 3, 2009, the NRC published a proposed rule seeking public comment on an agency proposal to strengthen oversight of radioactive materials by limiting the amount of radioactive material allowed in generally licensed devices. The proposed rule would require owners of approximately 1,800 devices (an estimated 1,400 general licensees nationwide) to apply for specific licenses for the devices. This change applies primarily to fixed industrial gauges.

In March 2009, the NRC began an initiative to revise significantly the fuel cycle facility oversight process to make it more risk-informed and performance-based. The process revision is also expected to produce NRC performance assessment results for licensees and certificate holders of fuel cycle facilities that are more objective, predictable, and transparent to all stakeholders. On September 3, 2009, the NRC published a *Federal Register* notice for the revised fuel cycle oversight process. This new process will be phased in over the next several years.

On April 15, and September 29, 2009, the NRC issued two updated standard review plans for public comment: one for performing risk-informed reviews of spent fuel storage casks and another for renewing ISFSI licenses. The standard review plan for license renewal was issued concurrently with the proposed rulemaking for 10 CFR Part 72 that will extend ISFSI license terms from 20 years to 40 years and allow the use of newly revised certificates of compliance for previously loaded storage casks.

The NRC published multiple advanced notices of proposed rulemaking during this period. For example, one notice addressed the establishment of requirements for U.S. RTRs to perform fingerprint-based background checks on personnel with unescorted access to their facilities. Another notice sought public comments on the issues and options for potential changes to the agency's radiation protection regulations to achieve greater alignment with the 2007 recommendations of the International Commission on Radiological Protection.

From April through September 2009, the agency scheduled more than 450 public meetings in Washington, D.C., and around the country. The issues addressed ranged from the above rulemaking activities, to discussion of program development or draft guidance documents, to matters affecting individual applicants or licensees.

Other activities of note from April through September 2009 are discussed below:

On April 1, 2009, under the provisions of a memorandum of understanding (MOU), the NRC accepted for review the U.S. Department of Energy's (DOE's) Phase 1 decommissioning plan for the West Valley Demonstration Project (WVDP) site in western New York State. The WVDP site comprises a 200-acre portion of the 3,300 acre Western New York Nuclear Service Center. The Center contains a former commercial nuclear fuel reprocessing facility that

operated from 1966 to 1972 and produced approximately 600,000 gallons of liquid high-level radioactive waste. The WVDP also contains contaminated structures and a radioactive waste disposal area, as well as a waste tank farm, waste lagoons, and above-ground radioactive waste storage areas, with soil and groundwater contamination near these facilities. DOE's Phase 1 decommissioning plan envisions remediation activities within the WVDP boundary, including removal of a number of structures and wastewater treatment facility lagoons.

On April 3, 2009, the staff forwarded to the Commission the seventh annual report on significant nuclear materials issues and adverse licensee performance trends in the materials and waste program. In this report, covering FY 2008, the staff evaluated significant nuclear materials issues and performance trends based on aggregated information obtained from operating experience associated with reportable events and generic issues affecting the industry. The report concluded that there are no discernable performance trends or generic issues.

On April 8, 2009, the Commission approved a staff recommendation to continue providing potassium iodide (KI) to states requesting it for residents who live within the 10-mile emergency planning zone of a commercial nuclear power plant. The NRC had originally authorized only a one-time distribution to states requesting the product. KI can help reduce the risk of thyroid cancer and other diseases by blocking the thyroid gland's absorption of radioactive iodine, which could be dispersed in the unlikely event of a severe reactor accident.

On April 22, 2009, the NRC and DOE renewed an expired office-level agreement on the planning and conduct of cooperative research and extended the MOU's scope to include the sharing of information from international cooperative programs. The new agreement is effective for five years.

On June 4, 2009, the NRC published NUREG-1910, the Final Generic Environmental Impact Statement for In Situ Leach Uranium Milling Facilities. This document will improve the efficiency of the agency's environmental reviews of certain uranium milling facilities by serving as a starting point for site-specific environmental reviews.

Also in June, the NRC contacted 18 nuclear power plants to clarify how the licensees will address the effects of the recent economic downturn on funds to decommission reactors in the future. Nuclear power plant operators are required to set aside funds during a reactor's operating life to ensure that the reactor site will be properly cleaned up once the reactor is permanently shut down. The NRC's review of the latest reports on decommissioning funding assurance suggests that several plants must adjust their funding level. This is not a current safety issue, but the plants do have to ensure that they are setting aside funds appropriately.

The NRC announced on August 26, 2009, that it had awarded nuclear education grants totaling nearly $20 million to 70 institutions. These grants are intended to boost nuclear education and expand the workforce in nuclear and nuclear-related disciplines. The NRC awarded 102 grants for scholarships ($2.9 million) and fellowships ($5.4 million), faculty development ($4.8 million), trade and community college scholarships ($1.8 million), and

nuclear education and curriculum development ($4.8 million). This year the agency expanded the number of institutions receiving grants from 60 to 70 and increased the number of grants to minority-serving institutions by 67 percent. Recipients are located in 29 states, the District of Columbia, and Puerto Rico. The seventh annual survey conducted by US Black Engineer and Information Technology magazine lists the Nuclear Regulatory Commission as one of its 2009 top supporters of the engineering schools at Historically Black Colleges and Universities and minority serving institutions.

On September 10, 2009, the NRC staff determined that First Energy Nuclear Operating Co. (FENOC) had met the terms of a 2004 NRC order placing conditions on the restart of the Davis-Besse Nuclear Power Station after a two-year shutdown following the discovery of severe reactor vessel head degradation. In 2004, the plant was allowed to restart once the NRC concluded that FENOC had made sufficient progress to assure the NRC that the plant could operate safely. Following the 2004 restart, the NRC required Davis-Besse to perform annual independent assessments for five years in the areas of operations, engineering, corrective actions, and safety culture. It also required a one-time inspection of key components on the reactor vessel during a mid-cycle outage to make sure it was not again subject to boric acid corrosion. The NRC conducted numerous inspections to review and validate Davis Besse's annual independent assessment results to confirm that FENOC had met the terms of the 2004 NRC order.

Effective September 30, 2009, New Jersey assumed part of the NRC's regulatory authority over certain nuclear materials in the state. Under the agreement, the NRC will transfer to New Jersey the responsibility for licensing, rulemaking, inspection, and enforcement activities for an estimated 500 licenses. New Jersey is the 37th state to sign such an agreement with the NRC.

Also on September 30, 2009, the NRC Office of the Inspector General released the results of its 2009 Internal Safety Culture and Climate Survey. The agency had an impressive 87 percent participation rate, and the results show that the agency is performing significantly above the results from 2005, the last time a survey was conducted. While there are always opportunities for improvement, the agency's results in all categories are at or significantly above norm levels, including high-performance company norms. The NRC staff takes justifiable pride in these results, and I will be working with NRC senior managers to take appropriate actions that will continue to enhance the agency's internal safety culture and climate.

In a related effort, as FY 2009 drew to a close, the agency was preparing to publish NRC's draft Safety Culture Policy Statement in the *Federal Register* for public comment. This draft policy statement sets forth the Commission's expectation that all licensees and certificate holders will establish and maintain a positive safety culture that protects public health and safety and the common defense and security.

Please contact me for any additional information you may need.

Sincerely,

/RA/

Gregory B. Jaczko

Enclosure:
Semiannual Status Report on the Licensing
Activities and Regulatory Duties of the
U.S. NRC, April 2009 – September 2009

cc: Senator David Vitter

Identical letter sent to:

The Honorable Thomas R. Carper
Chairman, Subcommittee on Clean Air
and Nuclear Safety
Committee on Environment and Public Works
United States Senate
Washington, D.C. 20510
cc: Senator David Vitter

The Honorable Barbara Boxer
Chairman, Committee on Environment
and Public Works
United States Senate
Washington, D.C. 20510
cc: Senator James M. Inhofe

The Honorable Edward J. Markey
Chairman, Subcommittee on Energy
and Environment
Committee on Energy and Commerce
United States House of Representatives
Washington, D.C. 20515
cc: Representative Fred Upton

The Honorable Henry A. Waxman
Chairman, Committee on Energy
and Commerce
United States House of Representatives
Washington, D.C. 20515
cc: Representative Joe Barton

The Honorable Peter J. Visclosky
Chairman, Subcommittee on Energy
and Water Development
Committee on Appropriations
United States House of Representatives
Washington, D.C. 20515
cc: Representative Rodney Frelinghuysen

The Honorable Byron Dorgan
Chairman, Subcommittee on Energy
and Water Development
Committee on Appropriations
United States Senate
Washington, D.C. 20510
cc: Senator Robert F. Bennett