

September 8, 2004

The Honorable Tom Ridge  
Secretary  
U.S. Department of Homeland Security  
Washington, D.C. 20528

Dear Secretary Ridge:

On behalf of the U.S. Nuclear Regulatory Commission (NRC), I am writing to update you on recent actions the NRC has taken to continue enhancing the security of NRC-regulated nuclear facilities and radioactive materials.<sup>1</sup>

The NRC has exercised its statutory responsibility to ensure adequate protection of public health and safety, promote the common defense and security, and protect the environment from potential hazards involved in the civilian use of nuclear materials. In the weeks and months following the terrorist attacks on September 11, 2001, the NRC focused its efforts on improving security at the facilities it regulates, including nuclear power reactors and fuel manufacturing facilities that possess significant quantities of special nuclear material, and activities such as transportation of spent nuclear fuel. On February 25, 2002, the NRC issued Orders to all nuclear power plant licensees requiring that they increase their defensive capabilities to protect against the new threat. These enhancements to security included increased security patrols, augmented security forces, additional security posts, increased vehicle standoff distances, and improved coordination with law enforcement and intelligence communities, as well as strengthened safety-related mitigation procedures and strategies.

On January 7, 2003, the NRC required further enhancements to access controls for the power plants. On April 29, 2003, the NRC issued three additional Orders requiring additional security enhancements, including:

- Work-hour limitations on security personnel;
- Enhanced training and qualification requirements for security force personnel; and
- Revisions to licensee security, training and qualifications, and contingency plans to protect against the supplemented design basis threat of radiological sabotage.

The April 2003 Orders required that the licensees submit their revised plans to the NRC for review and approval by April 29, 2004, and that the plans be implemented at the nuclear power plants by October 29, 2004. The licensees submitted revised security plans in April 2004. The NRC staff is on schedule to complete its review of those plans and will work with licensees to implement them.

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<sup>1</sup> See previous annual letters on NRC's web site @ [www.nrc.gov](http://www.nrc.gov).

Over the past year, we have continued to enhance security for NRC-licensed facilities and activities. On October 23, 2003, the Commission issued an immediately effective Order imposing additional security measures to all power reactor licensees and research reactor licensees who transport spent nuclear fuel. On January 12, 2004, the Commission issued an immediately effective Order imposing additional security measures for source manufacturers and distributors of high risk radioactive sources. In July 2004, the Commission approved issuance of Orders imposing additional security measures for the Honeywell uranium conversion facility, independent spent fuel storage facilities, and all decommissioning nuclear power plants with spent fuel in the spent fuel pool. Some of the requirements set forth in these various Orders formalize a series of security measures that NRC licensees had taken in response to advisories issued by the NRC in the aftermath of the September 11, 2001 terrorist attacks. Additional security enhancements, developed during our ongoing security review, are also provided in these Orders. The specific security measures addressed by the Orders, which supplement existing regulatory requirements, are classified as Safeguards Information under Section 147 of the Atomic Energy Act, as amended. These Orders remain in effect until the Commission determines otherwise.

In addition to these enhancements, we have continued to improve our security performance evaluation program (our force-on-force evaluations), which we consider an important element for ensuring protection of the Nation's critical infrastructure. In February 2003, we resumed the force-on-force program in the form of a pilot program to test recent program enhancements. In February 2004, the NRC began a transition force-on-force program, incorporating the lessons learned during the pilot program. The transition program follows the same format as the pilot program; however, the "mock adversary" force now uses the characteristics of the Design Basis Threat (DBT), as enhanced and supplemented by our Orders, to prepare for resumption of the full security performance assessment program in November 2004. Under that program, we will conduct approximately 22 force-on-force exercises per year, so that each site's security will undergo an NRC evaluated exercise at least once every three years. This represents a significant increase in the exercise frequency; in addition, each plant is required to conduct independent exercises at least once each year.

During the pilot program, the NRC identified the need to improve the offensive capabilities, consistency, and effectiveness of the exercise adversary force. The Commission addressed this need by directing the staff to develop a training standard for a Composite Adversary Force (CAF). The CAF for a given NRC-evaluated force-on-force exercise will comprise security officers from various nuclear power facilities (excluding the licensee being evaluated) and will have been trained in offensive, rather than defensive, skills to perform the adversary function.

The NRC has conducted detailed, site-specific engineering studies of a limited number of typical plants to assess potential vulnerabilities of nuclear power plants to deliberate attacks involving large commercial aircraft. The results of these studies have confirmed the effectiveness of the required mitigative measures and have identified further enhancements to mitigative strategies. For the facilities analyzed, the studies confirm that the likelihood of both damaging the reactor core and releasing radioactivity that could affect public health and safety is low. Even in the unlikely event of a radiological release due to a terrorist use of a large aircraft against a nuclear power plant, the studies indicate that there would be time to implement the required on-site mitigating actions. These results have also validated the off-site

emergency planning basis. Additional studies are being considered to further enhance mitigative capabilities, and we will continue to coordinate with the Department of Homeland Security on this initiative.

The studies to date also indicate that significant releases of radioactive material due to a terrorist attack on a spent fuel pool are very unlikely. The safety and security of spent fuel storage is ensured through many safety and security measures that provide protection against terrorist threats. In addition, the studies indicate it is highly unlikely that a significant release of radioactivity would occur from a dry spent fuel storage cask, and no release of radioactive material is expected from an aircraft attack on a transportation cask. Measures are in place to adequately protect the public from attacks on spent fuel, in either wet or dry configurations.

In terms of nuclear material security, the NRC has taken action with our domestic and international counterparts to ensure protection of radioactive sources that could pose significant hazards to public safety. In partnership with the U.S. Departments of State and Energy, we have made key contributions to revising the Code of Conduct for the Safety and Security of Radioactive Sources promulgated by the International Atomic Energy Agency (IAEA) in September 2003 at the 47th session of the General Conference. We have also worked with the U.S. Departments of State and Energy to hold consultations with supplier nations concerning export/import controls. The NRC has independently proposed an export/import rule to enhance controls on these radioactive sources consistent with the IAEA Code of Conduct. The NRC has also coordinated with State officials to enhance controls on radioactive sources and as such, NRC has completed an interim source database that will, in time, grow into the National Source Tracking System consistent with the IAEA Code of Conduct for the Safety and Security of Radioactive Sources.

Another noteworthy action taken in the past year to enhance the security and safety of nuclear materials was the issuance of a regulatory bulletin requesting about 1,100 licensees to perform verification of certain types of nuclear materials currently in their possession. This activity supports NRC's Nuclear Materials Management and Safeguards System (NMMSS), a national database used by the NRC and the Department of Energy (DOE) to track certain nuclear materials and other government-owned materials.

With respect to emergency preparedness and incident response, the NRC continues to work with the U.S. Department of Homeland Security and other Federal agencies to integrate Federal Response Plans into a unified National Response Plan and National Incident Management System, and to refine the National Preparedness Policy. We have also completed the development of the commercial Nuclear Reactors, Materials, and Waste Key Resource Plan for Critical Infrastructure Protection. This document serves as the Sector-Specific component of the National Infrastructure Protection Plan. In addition, we continue to coordinate protective strategies with various components of the U.S. Department of Defense, including NORTHCOM and NORAD, and have recently participated in exercises such as Unified Defense '04 and Amalgam Virgo '04. We have also conducted integrated response tabletop exercises, involving licensees, State and local responders, as well as multiple Federal agencies, to focus combined efforts and actions when responding to a possible terrorist event at a nuclear power plant. In June 2004, the NRC integrated emergency preparedness functions into the Office of Nuclear Security and Incident Response to handle preparedness and response activities more effectively and efficiently.

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In summary, the NRC has made, and will continue to make, significant progress in supporting our Nation's efforts to enhance homeland security and preparedness. Please do not hesitate to contact me for additional information.

Sincerely,

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Nils J. Diaz