



# NRC NEWS

**U.S. NUCLEAR REGULATORY COMMISSION**

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## **NUCLEAR POWER IN THE 2002 NATIONAL ENERGY ARENA**

Remarks of Commissioner Nils J. Diaz  
U.S. Nuclear Regulatory Commission

at the

The Southeastern Association of Regulatory Utility Commissioners (SEARUC)

Miami Beach, Florida  
June 4, 2002

Good morning, ladies and gentlemen. I am pleased to be able to speak today to the Southeastern Association of Regulatory Utility Commissioners (SEARUC) on the topic of nuclear power in the 2002 national energy arena. I would first like to thank, my friend, the President of SEARUC, Braulio L. Baez of the Florida Public Service Commission, for inviting me to speak before your group. I see a number of familiar faces in the audience, but I would particularly like to acknowledge Commissioner Bubba McDonald of the Georgia Public Service Commission and Chairman of the NARUC Subcommittee on Nuclear Issues/Waste Disposal. Commissioner McDonald has appeared before the U.S. Nuclear Regulatory Commission (NRC) on issues of interest to both the NRC and NARUC. The NRC appreciates Commissioner McDonald's leadership, and you all contributions to the welfare of our nation.

### **NRC ACTIVITIES IN RESPONSE TO THE EVENTS OF SEPTEMBER 11**

I cannot begin to discuss nuclear power in the 2002 national energy arena without discussing briefly the NRC's response to the shocking events of September 11, 2001. Protection of public health and safety and the common defense and security is NRC's business and they were both attacked on September 11th. For nuclear power plants, when the threat is terrorism and sabotage, security is a subset of safety. Prior to September 11<sup>th</sup> and even more so today, security is very important; however, it should not overwhelm the safe operation and regulation of nuclear power plants. Security of nuclear power plants must be established in an integral manner with all the safety objectives and all their safety features, internal and external to the plant, and be consistent with the overall requirements of national

security. Our national security begins and ends with the principles and practices of our democratic society, and with every component of our society that assures our freedom and the pursuit of happiness. Security does not depend on any one component, but rather on multiple layers of physical structures, systems and components, as well as other protective measures. Achieving a proper balance between them is the present challenge.

By the way, I believe energy security is a key component of national security. The safe and reliable operation of nuclear power plants is vital to our energy security and, therefore, to the well-being of our people. Thus, it is our responsibility to bolster nuclear facilities' defenses. To ensure that adequate levels of protection are in place, the NRC has issued Orders to all 104 commercial nuclear power plants to implement interim compensatory security measures for the current high-level threat environment. Some of the requirements 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<sup>th</sup> terrorist attacks. Additional security enhancements, which have emerged from the ongoing comprehensive security review, are also spelled out in the Orders. The requirements will remain in effect until such time as the Commission determines that the level of threat has diminished, or that other security changes are needed following the comprehensive re-evaluation of current safeguards and security programs. The Commission views these compensatory measures as prudent, interim measures to address the current high-level threat environment in a consistent manner throughout the nuclear reactor community. The specific actions taken are understandably sensitive, but they generally include requirements for increased patrols, augmented security forces and capabilities, additional security posts, installation of additional physical barriers, vehicle checks at greater standoff distances, enhanced coordination with law enforcement and military authorities, and more restrictive site access controls for all personnel.

The NRC just established an Office of Nuclear Security and Incident Response to consolidate and streamline selected NRC security, safeguards, and incident response responsibilities and resources. Let me conclude my remarks regarding security by stating that we are providing prudent and necessary security measures and that our multiple layers of defense are adequate to protect public health and safety.

## **INDUSTRY RESTRUCTURING**

The NRC has been engaged in a comprehensive effort to address the implications of electric utility rate deregulation for the adequate protection of public health and safety. On September 22, 1998, the NRC published in the *Federal Register* a final rule on financial assurance requirements for decommissioning nuclear power reactors. Among other things, the rule (1) broadens allowable funding assurance mechanisms to include, for example, non-bypassable wires charges to recover decommissioning costs that many States are imposing as part of their deregulation initiatives; (2) requires licensees to report biennially on the status of their decommissioning funds; and (3) allows a 2% credit for decommissioning fund earnings if a Public Utility Commission has not allowed some other rate. In addition, the NRC has continued to monitor rate deregulation developments in the States and uses its regulatory and oversight programs to review and monitor operational experience to ensure that plants continue to operate safely. More recently, the NRC issued a proposed rule on the terms and conditions of decommissioning trust agreements that the NRC believes are necessary to protect these funds. The NRC expects to issue a final rule in this area later this year.

The NRC also has developed or is developing guidance, including Standard Review Plans (SRPs), in several program areas in response to rate deregulation, including: (1) financial qualifications

and decommissioning funding assurance; (2) foreign ownership, control, and domination; (3) non-owner operators; and (4) technical qualifications. I have been saying for years, and the data support it, that reliable and economical nuclear power plants are correlated with safe operation. Many plants have increased capacity factors and reduced O&M costs to the point where they appear to be well positioned to compete in any electricity marketplace. In most cases, these plants have demonstrated excellent safety performance, as evidenced by performance indicators and NRC oversight program findings. These plants should continue to be excellent safety performers as deregulation evolves in the United States, as long as their current safety focus is maintained.

## **LICENSE TRANSFERS AND INDUSTRY CONSOLIDATION**

In 1998, the license transfer process was identified as an area for improvement. The goal of this effort was to enhance the predictability, timeliness, and efficiency of the process for transferring power reactor licenses, while maintaining a framework to ensure adequate protection of public health and safety. One of the NRC's significant accomplishments toward this end was to issue a final rule in December 1998 that streamlined the hearing process for license transfers. Among other things, this rule established a more informal, speedier hearing process and incorporated a categorical exclusion to eliminate the need for case-specific Environmental Assessments and No Significant Hazards determinations.

Over the past several years, the NRC has reviewed over 100 license transfer applications. For the first time, the NRC reviewed and approved applications for the sales of entire nuclear units from one owner to another, unrelated owner – the NRC approved the sale of Three Mile Island, Unit 1 (TMI-1), on April 12, 1999, and the sale of the Pilgrim Station on April 29, 1999. Several other plants have been sold or are in the process of being sold to new owners since then, including Seabrook to Florida Power & Light. Although there has been some reduction in the rate of new license transfer applications as a result of the California experience and the events of September 11<sup>th</sup> the NRC expects to continue to receive new transfer applications for the foreseeable future.

The NRC focuses its reviews of technical qualifications in license transfer applications on determining whether the proposed transferee has the technical expertise to continue to run the plant safely. For indirect transfers, where the licensee itself remains the same, technical qualifications are generally not an issue in the NRC's review.

In a related issue, and as I stated in my votes on the issue of industry consolidation, the agency needs to have firmly established plans to effectively carry out its mission in this changed environment of consolidation. If we need to either clarify or develop new regulations, we should do so mindful of the many possible restructuring options available to the industry. I will continue to work to ensure that our regulations enhance protection of public health and safety, and do not unnecessarily hinder deregulation.

## **REGULATORY EFFICIENCY**

Because power reactor licensees are faced with an increased pressure to reduce or contain costs, often due to rate deregulation, they in turn strongly desire the NRC to act to decrease both direct and indirect costs imposed on them as a result of NRC's actions. The primary example of direct costs is license fees. For the past several years, the U.S. Congress has required the NRC to recover the costs of its regulatory programs through fees levied on its licensees. These fees are calculated both from actual

effort expended by the NRC in performing its regulatory duties with respect to specific licensees and from apportionment of overhead and other general costs among all licensees.

Indirect costs include those cost impacts on licensees that arise from the regulatory actions that the NRC takes as part of its mission. The NRC has initiated several actions to reduce unnecessary regulatory burden, including, for example, a major initiative to improve our regulatory system through the application of risk information to risk-informed regulation and another major initiative to improve the NRC's reactor inspection and oversight program.

These initiatives make good regulatory sense by helping us focus on what is truly important to safety. As rate deregulation proceeds, I expect that the NRC will be continually challenged to improve its regulatory efficiency. We will need to continually strive to minimize the direct and indirect cost impacts of our actions, while maintaining our focus on our mission to ensure adequate protection of public health and safety.

## **LICENSE RENEWAL**

Regulatory progress is also evident in the license renewal area. I believe that the NRC has established a license renewal process that can be completed in a reasonable period of time with clear requirements to assure safe plant operation for an additional 20 years of plant life. Plant extensions add predictability to the energy supply pool. To date, eight licenses, including the three Oconee units in South Carolina, Arkansas Nuclear 1, Unit 1 in Arkansas and Hatch 1 & 2 in Georgia, have been renewed. Fifteen license renewals are being processed, including Turkey Point 3 & 4 and St. Lucie 1 & 2 in Florida, the Surry and North Anna plants in Virginia, and McGuire 1 & 2 and Catawba in North Carolina. Over twenty other applications, many for multiple reactors, are expected in the next few years, including plants in Alabama, Arkansas, North Carolina, South Carolina and Tennessee. The NRC is completing license renewal approvals approximately 24 months after receiving the applications. I expect that virtually all of the fleet with a good safety record and maintenance will apply to renew their licenses; efficiencies are being achieved in the timely processing of the applications. In summary, the NRC has established an efficient and effective process to conduct the safety and environmental reviews of license renewal applications.

## **POWER UPDATES**

While license renewal is important for the long-term stability and economics of electricity generation in the United States, power uprates for existing facilities result in a more immediate increase of electricity to meet the needs of our nation today, without compromising safety. NRC regulates the maximum power level at which a commercial nuclear power plant may operate. NRC uses this power level along with other data in many of the licensing analyses that demonstrate the safety of the plant. This power level is included in the license and technical specifications for the plant. NRC controls any change to a license or technical specification, and the licensee may only change these documents after NRC approves the licensee's application for change.

The NRC has completed over 70 power uprate reviews for approximately 9800 MWt or an equivalent of three nuclear power plant units. The staff estimates that licensees will submit 35 additional power uprate requests in the next five years resulting in about 1590 MWe of added capacity. Upgrades up to 20% increases in full power are under consideration, and one has been granted. We have generally completed these reviews in a manner that does not unnecessarily delay implementation.

## **NEW NUCLEAR POWER PLANTS**

The expectations for new nuclear power plant orders were enhanced last year when the President and the Vice President of the United States presented a National Energy Policy for the United States. The policy is designed to help bring together business, government, local communities and citizens to promote dependable, affordable and environmentally sound energy for the future. In this report, the President supports the expansion of nuclear energy in the United States as a major component of the national energy policy. Notably, the report states that the NRC has made great strides to provide greater regulatory certainty while maintaining high safety standards.

The President's proposal specifically encourages the NRC to ensure that safety and environmental protection are high priorities as we prepare to evaluate and expedite applications for licensing of new advanced-technology nuclear reactors.

Although the events of September 11<sup>th</sup> may have hurt the economy, there appears to be positive momentum for additional nuclear generating capacity. TVA recently approved a plan to restart the Browns Ferry Plant, Unit 1, which is still licensed to operate. Also, the Watts Barr Nuclear Plant, Unit 2, and the Bellefonte Units remain in a deferred status with construction permits. Several potential applicants for early site permits have been identified, including Exelon Generation, Dominion Generation, and Entergy Operations, with applications expected in the near term. Westinghouse has applied for design certification of the AP1000, General Atomics has submitted a pre-application licensing plan for the Gas Turbine-Modular Helium Reactor, and General Electric has requested a pre-application review of the 4000 MWt European Simplified Boiling Water Reactor. Although there is no certainty that new plant construction is in our near future, the NRC is preparing to carry out our responsibilities in this area.

## **DISPOSAL OF SPENT FUEL AND HIGH LEVEL RADIOACTIVE WASTE**

The Commission believes that a permanent geologic repository can provide the appropriate means for the United States to manage spent nuclear fuel and other high-level radioactive waste in a safe manner. We also believe that public health and safety, the environment, and the common defense and security can be protected by deep underground disposal of these wastes. The Commission takes no position on whether such a repository should be located at Yucca Mountain, Nevada. Our views on that question must be shaped by the results of the Congressionally mandated licensing process.

Based on our technical reviews and pre-licensing interactions, we believe that sufficient information can be available at the time of a license application. The U.S. Department of Energy (DOE) and NRC have reached and documented numerous agreements regarding additional information that will be needed for a licensing review. Approximately two thirds of these agreements call for DOE to document the bases for assumptions or conclusions. The remainder oblige DOE to perform specific tests or analyses, to document prior tests or studies, or to provide other information. As DOE completes the actions necessary to fulfill these agreements, NRC will review the results promptly and notify DOE of our findings. Based on these agreements, it appears that DOE can assemble the information necessary for an application that NRC can accept for review.

One issue that will certainly play an important role on the resolution of the high-level radioactive waste disposition is transportation. Federal regulation of spent fuel transportation safety is shared by the U.S. Department of Transportation (DOT) and the NRC. DOT regulates the transport of all hazardous materials, including spent fuel, and has established regulations for shippers and carriers

regarding radiological controls, hazard communication, training, and other aspects. For its part, NRC establishes design standards for the casks used to transport licensed spent fuel, and reviews and certifies cask designs prior to their use. Further, cask design, fabrication, use and maintenance activities must be conducted under an NRC-approved Quality Assurance program.

The NRC believes the safety protection provided by the current transportation regulatory system is well established. Nonetheless, we continually examine the transportation safety program, and the events of September 11, 2001, have added to our concerns. In FY 2000, NRC reevaluated its generic assessment of spent fuel transportation risks to account for the fuel, cask and shipment characteristics likely to be encountered in future repository shipping campaigns. As a part of its evaluation, the NRC staff is analyzing appropriate national transportation accidents, such as the 2001 train accident in Baltimore, Maryland, to determine if lessons learned from such events should be included in our transportation requirements or analyses. Finally, NRC is sponsoring a study to update its evaluation of cask response to acts of sabotage. These studies should be available by the time a license application for an underground repository is received.

The Commission believes that deep geologic disposal is appropriate for high-level radioactive wastes and spent nuclear fuel. Our role is to put in place a licensing system that will ensure adequate protection of public health and safety and the environment and to efficiently review and evaluate any license application submitted to ensure its compliance with regulatory requirements. And, as I hope you can glean from the actions I described above, there are many challenges facing us; and many opportunities. Most of these could impact your duties and responsibilities. I'm sure my fellow panelists can expand on these thoughts.