

October 4, 2005

The Honorable George V. Voinovich, Chairman  
Subcommittee on Clean Air, Climate Change,  
and Nuclear Safety  
Committee on Environment and Public Works  
United States Senate  
Washington, D.C. 20510

Dear Mr. Chairman:

The Fiscal Year (FY) 2005 Energy and Water Development Appropriations Act, House Reports 108-554 and 108-792, directed the U.S. Nuclear Regulatory Commission (NRC) to continue to provide a monthly report on the status of its licensing and other regulatory activities. The initial reporting requirement arose in the FY 1999 Energy and Water Development Appropriations Act, Senate Report 105-206. On behalf of the Commission, I am pleased to transmit the eighty-first report, which covers the month of August 2005. I am also providing more recent information in this cover letter in order to keep you fully and currently informed of NRC's licensing and regulatory activities.

I want to update you on the NRC's Hurricane Katrina response, which was also covered in the letter submitting the July report. During the week of September 5, 2005, representatives of the Federal Emergency Management Agency (FEMA), accompanied by NRC staff, conducted a review of the status of the off-site emergency preparedness infrastructure surrounding the Waterford-3 site. NRC inspectors also conducted an assessment of the condition of on-site emergency preparedness. These assessments concluded that the emergency preparedness infrastructure was sufficient to support plant restart and provide reasonable assurance that adequate protective measures could be taken to ensure public health and safety in case of an emergency at the plant. Waterford-3 has resumed supplying electricity to support recovery of the regional infrastructure. With respect to radioactive materials, NRC is continuing to coordinate with other Federal agencies and the States of Louisiana and Mississippi to confirm the accountability and security of discrete radioactive sources and licensed facilities. In response to a suggestion by the Louisiana Department of Environmental Quality, NRC provided an experienced radioactive materials inspector to the Department's Baton Rouge office beginning the week of September 12, 2005, to facilitate communications between State agencies, the NRC, and other Federal agencies.

With regard to Hurricane Rita, the NRC began tracking the storm and providing continuous monitoring of it on September 19, 2005. NRC staff monitored the potential impacts on the Turkey Point plant from our regional and headquarters offices, as well as through NRC's on-site inspectors. There was no impact on the Turkey Point site except for heavy rain. NRC continuously tracked Hurricane Rita as it moved through the Gulf of Mexico. In advance of the

approaching hurricane, NRC inspectors at the Waterford-3, South Texas Project, and River Bend sites prepared to provide round-the-clock coverage to monitor site preparations and response. NRC's site staffing was augmented and the regional and NRC Headquarters response centers were staffed to provide continuous monitoring for these sites. NRC staff also coordinated with FEMA and the States of Texas and Louisiana to review the States' preparations with materials licensees and to prepare to support a FEMA review of off-site emergency preparedness infrastructure, if needed. NRC's response activities were also coordinated with the Department of Homeland Security and other Federal agencies, as called for by the NRC's incident response plan. None of the facilities experienced plant operational problems, none of the plants were required to shut down or reduce power output during the storm, and none of the plants experienced tropical storm force winds or flooding. NRC's regional office maintained liaison contacts with FEMA and the States of Texas and Louisiana to support any requests for assistance. The regional office dispatched four inspectors to assist Louisiana in confirming the security of discrete radioactive sources and licensed facilities in areas affected by Hurricane Rita. This work is nearly complete and no problems have been reported. NRC is receiving daily updates and stands ready to provide additional assistance in these efforts, as necessary.

The Commission recently approved a reorganization of NRC's Office of Nuclear Reactor Regulation (NRR) in order to position the office better to address changes in the commercial nuclear power industry as utilities move toward building new reactors. The reorganization prepares NRR for an expected increase in new reactor licensing activities while ensuring that current reactors continue to operate safely. It will also strengthen the NRC's approach to risk-informed and performance-based regulation by consolidating risk assessment activities into one division. In addition, it will streamline the NRR organization by realigning major work functions among a greater number of smaller divisions and eliminating a layer of Senior Executive Service (SES) managers.

On September 8, 2005, the NRC published in the Federal Register (70 FR 53313) a proposed rule on Implementation of a Dose Standard After 10,000 Years. The proposed rule would apply to the disposal of high-level radioactive wastes in a geologic repository and would implement the U.S. Environmental Protection Agency's (EPA's) proposed standards for doses that could occur after 10,000 years but within the period of geologic stability. The proposed rule also specifies a value to be used to represent climate change after 10,000 years, as called for by EPA, and specifies that calculations of radiation doses for workers use the same weighting factors that EPA is proposing for calculating individual doses to members of the public. The comment period expires November 7, 2005.

On September 9, 2005, the Commission denied the state of Utah's final appeals in the adjudication on an application by Private Fuel Storage (PFS) to construct and operate an independent spent nuclear fuel storage facility in Skull Valley, Utah, and authorized the NRC staff to issue PFS a license once the staff has made the requisite findings under NRC regulations. Utah's petition had requested the Commission to review a February 24, 2005 decision by the Atomic Safety and Licensing Board (ASLB), which rejected the State's assertions that there is too high a probability of a radiation release resulting from an accidental crash of one of 7,000 flights over the Skull Valley each year by F-16 single-engine jets from Hill Air Force Base. The PFS facility would be located on the Reservation of the Skull Valley Band of Goshute Indians, about 50 miles southwest of Salt Lake City.

On September 22, 2005, NuStart, a consortium of nuclear power companies announced the selection of sites and reactor technologies for combined licenses (COLs) to be submitted in 2007 or 2008. The sites selected are the Tennessee Valley Authority's Bellefonte site near Scottsboro, Alabama, and Entergy Corporation's Grand Gulf site near Port Gibson, Mississippi. The Bellefonte site will use the Westinghouse AP 1000 design, and the Grand Gulf site will use the General Electric ESBWR design. On the same day, Entergy Corporation independently announced it will pursue a COL for an ESBWR at its River Bend site near St. Francisville, Louisiana.

I also want to inform you of the agency's progress in implementing the Energy Policy Act of 2005. Some of the agency's recent actions include:

- Section 651(d)(1) - Radiation Source Protection Tracking System: Prior to the enactment of the Energy Policy Act of 2005, the NRC had published in the Federal Register on July 28, 2005, (70 FR 43646) a notice of a proposed rulemaking that would establish a mandatory tracking system for radiation sources in the U.S. Section 651(d)(1) of the Energy Policy Act requires the NRC to issue regulations establishing a mandatory tracking system for radiation sources, but includes requirements that differed, in some areas, from the proposed rule the NRC issued. The NRC will revise the proposed rule to make it consistent with the requirements specified in Section 651(d)(1) of the Energy Policy Act.
- Section 651(e)(5) - Waivers: The NRC published in the Federal Register on August 31, 2005, (70 FR 51581) a notice of issuance of a time-limited waiver associated with the regulation of newly defined byproduct material (i.e., accelerator-produced radioactive material and discrete sources of radium-226). The waiver allows persons owning, using, and otherwise engaging in activities involving the material to continue with their activities and States to continue to regulate this material during the applicable waiver period.

Please do not hesitate to contact me if I may provide additional information.

Commissioner Jaczko did not participate in the development of this letter to the extent it deals with the Yucca Mountain project.

Sincerely,

**/RA/**

Nils J. Diaz

Enclosure:  
Monthly Status Report on the Licensing Activities  
and Regulatory Duties of the U.S. NRC, August 2005

cc: Senator Thomas R. Carper

Identical letter sent to:

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

The Honorable Ralph M. Hall, Chairman  
Subcommittee on Energy and Air Quality  
Committee on Energy and Commerce  
United States House of Representatives  
Washington, D.C. 20515  
cc: Representative Rick Boucher

The Honorable Pete V. Domenici, Chairman  
Subcommittee on Energy and Water Development  
Committee on Appropriations  
United States Senate  
Washington, D.C. 20510  
cc: Senator Harry Reid

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

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

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

MONTHLY STATUS REPORT ON THE  
LICENSING ACTIVITIES AND REGULATORY DUTIES OF THE  
UNITED STATES NUCLEAR REGULATORY COMMISSION

**AUGUST 2005**

Enclosure

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<sup>1</sup>Note: The period of performance covered by this report includes activities occurring between the first and last day of August 2005. The transmittal letter to Congress accompanying this report may provide more recent information in order to keep Congress fully and currently informed of NRC's licensing and regulatory activities.

## **I Implementing Risk-Informed Regulations**

The U.S. Nuclear Regulatory Commission (NRC) has made significant progress toward risk-informing its regulations for nuclear power reactors. In July 1998, the NRC issued Regulatory Guide 1.174, "An Approach for Using Probabilistic Risk Assessment in Risk-Informed Decisions on Plant-Specific Changes to the Licensing Basis." This guidance allowed licensees to support requests to change the design and licensing basis of reactor facilities using risk information. In late summer 1998, NRC issued three more regulatory guides allowing licensees to request NRC approval of risk-informed alternatives to existing requirements on in-service inspection, in-service testing, and technical specifications. Since that time, several rulemakings have been completed to risk-inform NRC regulations. These rulemakings included revisions to the maintenance rule for nuclear power plants (10 CFR 50.65) in November 2000, combustible gas control requirements for reactor containment buildings (10 CFR 50.44) in September 2003, and nuclear reactor fire protection regulations (10 CFR 50.48) in June 2004.

More recently, on November 22, 2004, the NRC published a final rule, 10 CFR 50.69, "Risk-Informed Categorization and Treatment of Structures, Systems, and Components for Nuclear Power Reactors." This risk-informed regulation establishes an alternate set of requirements incorporating up-to-date analytic tools and risk insights to enhance plant safety by enabling nuclear power plant licensees to determine more precisely the safety significance of reactor structures, systems, and components and maintain these structures, systems, and components in a manner commensurate with their safety significance. To ensure the new regulation is properly implemented, the NRC developed Regulatory Guide 1.201, "Guidelines for Categorizing Structures, Systems and Components in Nuclear Power Plants According to Their Safety Significance" for trial use. The NRC is working to complete Regulatory Guide 1.201 by October 2005.

Risk-informed requirements for emergency core cooling systems are also being developed. The NRC expects to publish a proposed rule for these requirements by November 2005, with a 90-day public comment period. Final rules are usually issued about nine months after a proposed rule.

Broad efforts to transform the overall deterministic structure of NRC regulations into a new format based on the use of risk information are also in progress. Since 2003, the NRC has been working on a Regulatory Structure for New Plant Licensing that would result in risk-informed, technology-neutral regulations for licensing of future nuclear power reactor designs. The staff expects the first part of the program, developing the guidance and criteria for establishing the regulations, to be ready for stakeholder review in mid-2006. NRC is also investigating whether this risk-informed, technology-neutral regulatory structure should apply or be available to risk-inform the current regulations on light water reactors in 10 CFR Part 50.

## **II Revised Reactor Oversight Process**

The NRC continues to implement the Reactor Oversight Process (ROP) at all nuclear power plants. The NRC continues to meet with interested stakeholders on a periodic basis to collect feedback on the efficacy of the process and to consider the feedback for future ROP refinements. Recent activities include the following:

- On August 2, 2005, NRC staff issued letters to external stakeholders who commented on the ROP late last year. The NRC staff response included the ROP annual self-assessment Commission Paper and the ROP annual self-assessment metrics report. In addition, the staff directly responded to stakeholder comments by consolidating and providing a comprehensive response to the comments received for each of the 20 questions.
- On August 17, 2005, NRC staff hosted the monthly public meeting on the Mitigating Systems Performance Index (MSPI) at NRC Headquarters. Meeting attendees discussed a July 27, 2005 letter from the Nuclear Energy Institute (NEI) that addressed NEI's proposal for alternate MSPI Probabilistic Risk Assessment quality commitments. Industry representatives discussed the status of a related industry study and MSPI Basis Documents due to be submitted to the NRC staff by September 1, 2005.
- On August 18, 2005, NRC staff hosted the monthly ROP public meeting at NRC Headquarters. Meeting participants discussed fire protection and other Significance Determination Process issues and provided status updates on the Scrams with Loss of Normal Heat Removal and Reactor Cooling System Leakage Performance Indicator Task Forces. Meeting participants also discussed general ROP issues and performance indicator Frequently Asked Questions. The next meeting of the ROP Working Group will be held on September 21, 2005.

### **III Status of Issues in the Reactor Generic Issue Program**

On August 11, 2005, the staff completed a technical assessment of GSI-80, "Pipe Break Effects on Control Rod Drive Hydraulic Lines in the Drywells of Boiling Water Reactor Mark I and II Containments," and transmitted it to the Advisory Committee on Reactor Safeguards (ACRS) for review. GSI-80 addresses a concern about the likelihood and effects of a Loss of Coolant Accident, which could create the potential for criticality when the reactor core is reflooded. NRC is proposing to close the issue with no changes to existing requirements and is scheduled to brief the ACRS on its proposal in October 2005.

### **IV Licensing Actions and Other Licensing Tasks**

Operating power reactor licensing actions are defined as orders, license amendments, exemptions from regulations, relief from inspection or surveillance requirements, topical reports submitted on a plant-specific basis, notices of enforcement discretion, or other actions requiring NRC review and approval before they can be implemented by licensees. The fiscal year (FY) 2005 NRC Performance Plan incorporates three output measures related to licensing actions -- number of licensing actions completed per year, age of the licensing action inventory, and size of licensing action inventory.

Other licensing tasks for operating power reactors are defined as licensee responses to NRC requests for information through generic letters or bulletins, NRC responses to 10 CFR 2.206 petitions, NRC review of generic topical reports, responses by the Office of Nuclear Reactor Regulation to regional requests for assistance, NRC review of licensee 10 CFR 50.59 analyses and final safety analysis report updates, or other licensee requests not requiring NRC review

and approval before they can be implemented by licensees. The FY 2005 NRC Performance Plan incorporates one output measure related to other licensing tasks -- number of other licensing tasks completed.

In FY 2004, several high priority activities, such as power grid reliability, changes to nuclear facility security plans, safeguards contingency plans, and guard force training and qualification plans, resulted in the NRC reprogramming resources to accommodate the additional work. One of the programs affected by the reprogramming of resources was operating power reactor licensing actions. As a result, at the end of FY 2004, the size of the licensing action inventory exceeded the goal of less than or equal to 1000, and the goal of competing at least 96 percent of the licensing actions in less than or equal to one year was not met. The effects of the reprogramming will continue into FY 2005 and FY 2006. The licensing actions inventory and timeliness goals for FY 2005 were changed. Additional resources will be allocated in FY 2006 to reduce the inventory and improve timeliness to meet the original timeliness and inventory goals.

The NRC projects that it will not meet its timeliness goal at the end of FY 2005 for completing 100 percent of its reactor licensing actions within 2 years. The scheduled review of the Vermont Yankee extended power uprate has been extended to allow a thorough review of key technical issues associated with safe operation at higher power levels.

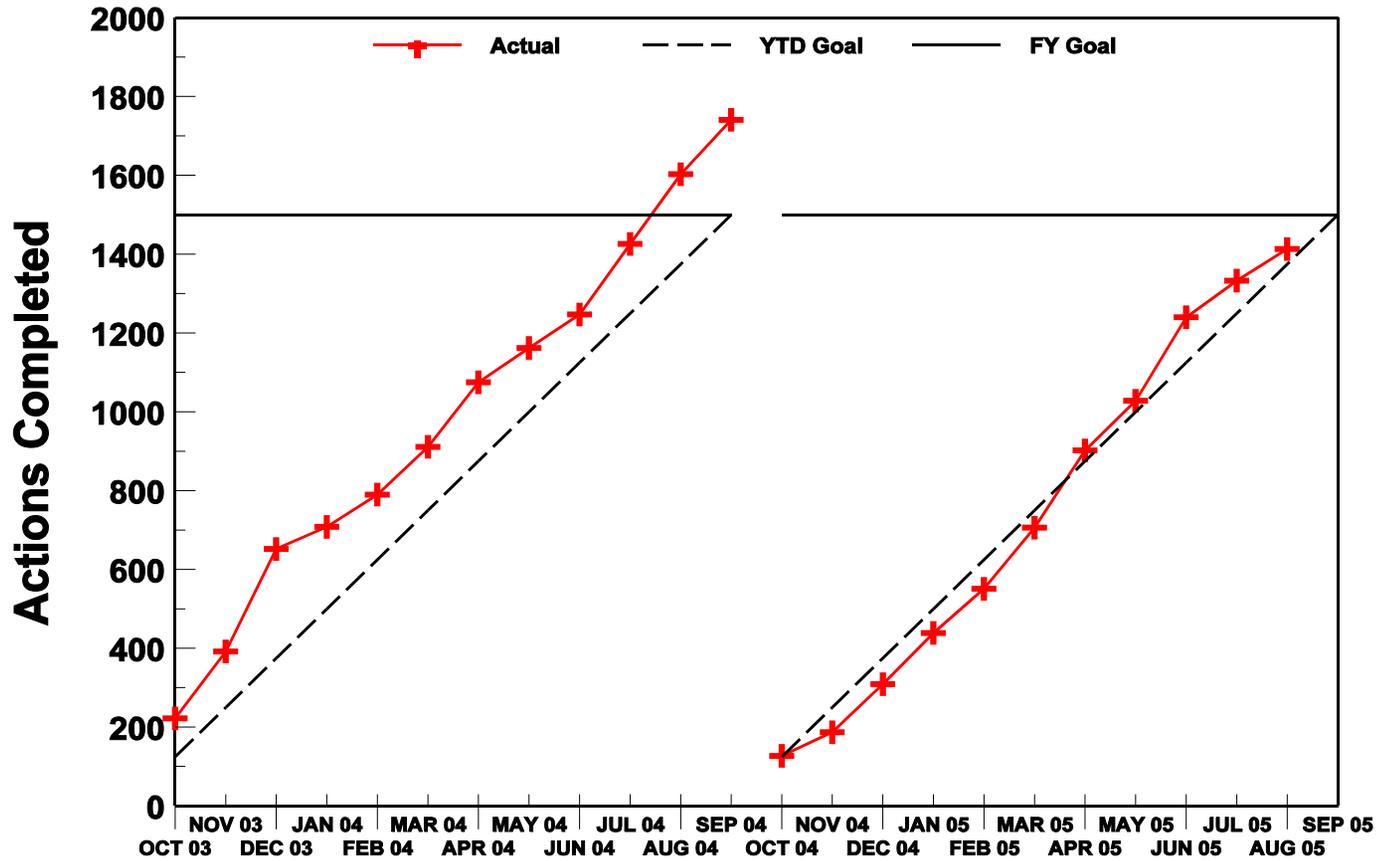
The actual FY 2003 and FY 2004 results, the FY 2005 goals, and the actual FY 2005 results, as of August 31, 2005, for the four NRC Performance Plan output measures for operating power reactor licensing actions and other licensing tasks are shown in the table below.

PERFORMANCE PLAN				
Output Measure	FY 2003 Actual	FY 2004 Actual	FY 2005 Goals	FY 2005 Actual (thru 08/31/2005)
Licensing actions completed/year	1774	1741	\$ 1500	1413
Age of licensing action inventory	96% # 1 year; and 100% # 2 years	91%# 1 year; and 100% # 2 years	90% # 1 year; and 100% # 2 years	86% # 1 year; and 99 % # 2 years
Size of licensing action inventory	1296	1135	# 1200	1164
Other licensing tasks completed/year	500	671	\$ 500	593

The charts below show NRC's FY 2005 trends for the four operating power reactor licensing action and other licensing task output measure goals:

# Nuclear Reactor Safety - Reactor Licensing

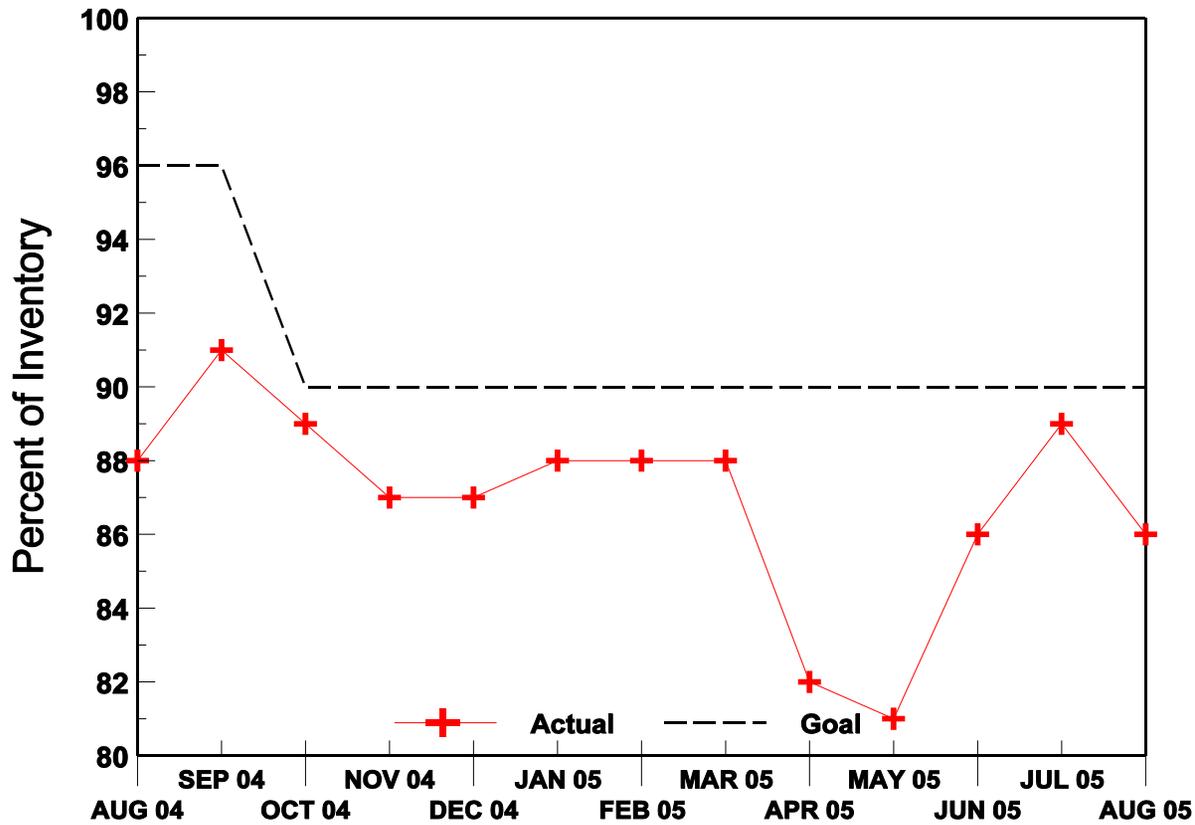
Performance Plan Target: Completed Licensing Actions



# Nuclear Reactor Safety - Reactor Licensing

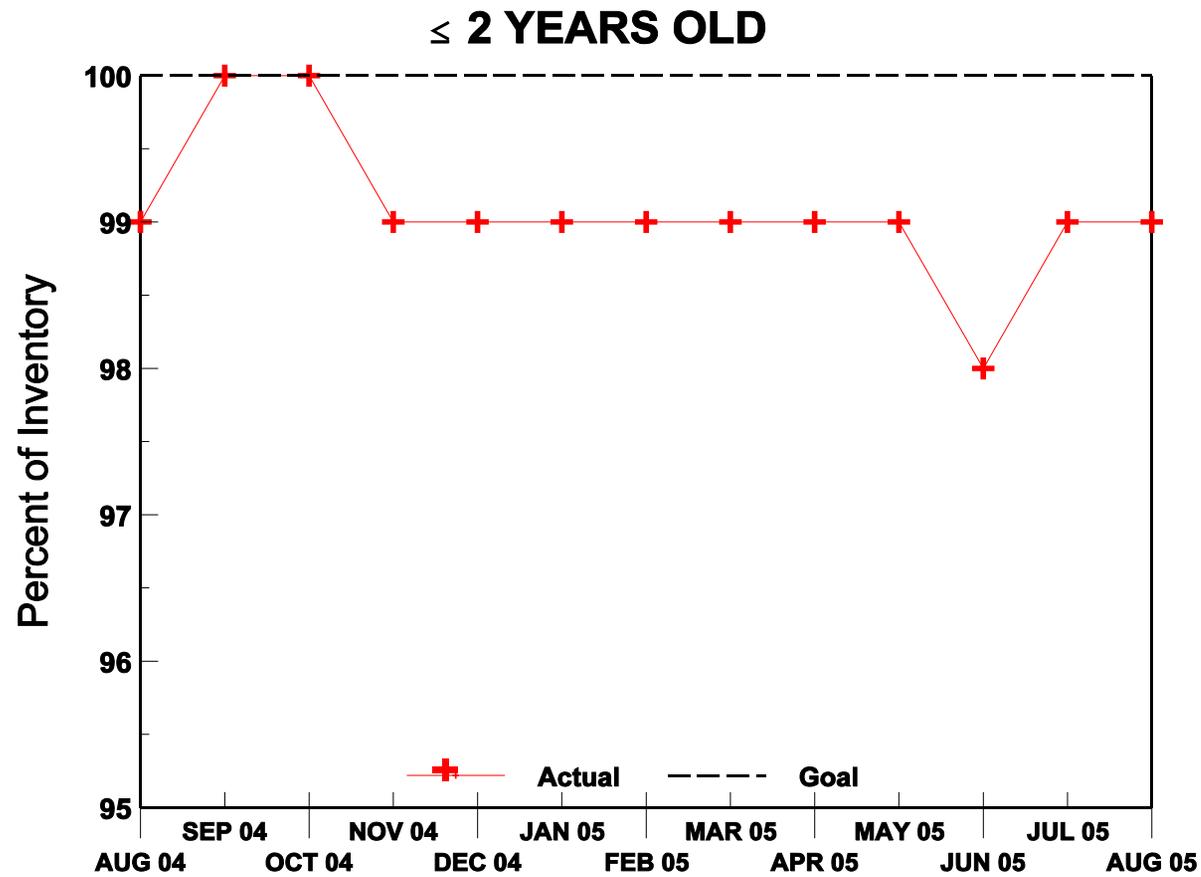
Performance Plan Target: Age of Licensing Action Inventory

≤ 1 YEAR OLD



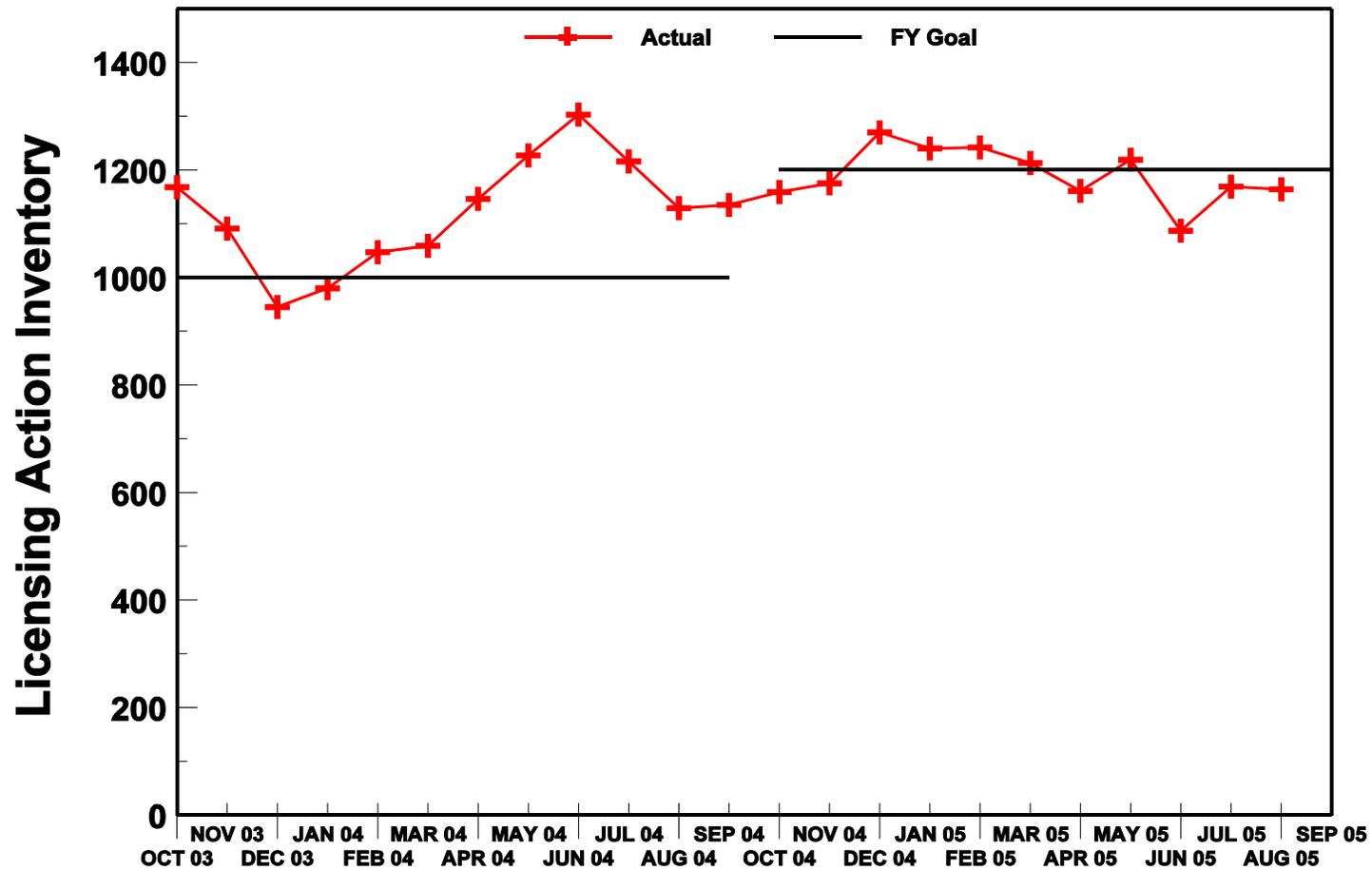
# Nuclear Reactor Safety - Reactor Licensing

Performance Plan Target: Age of Licensing Action Inventory



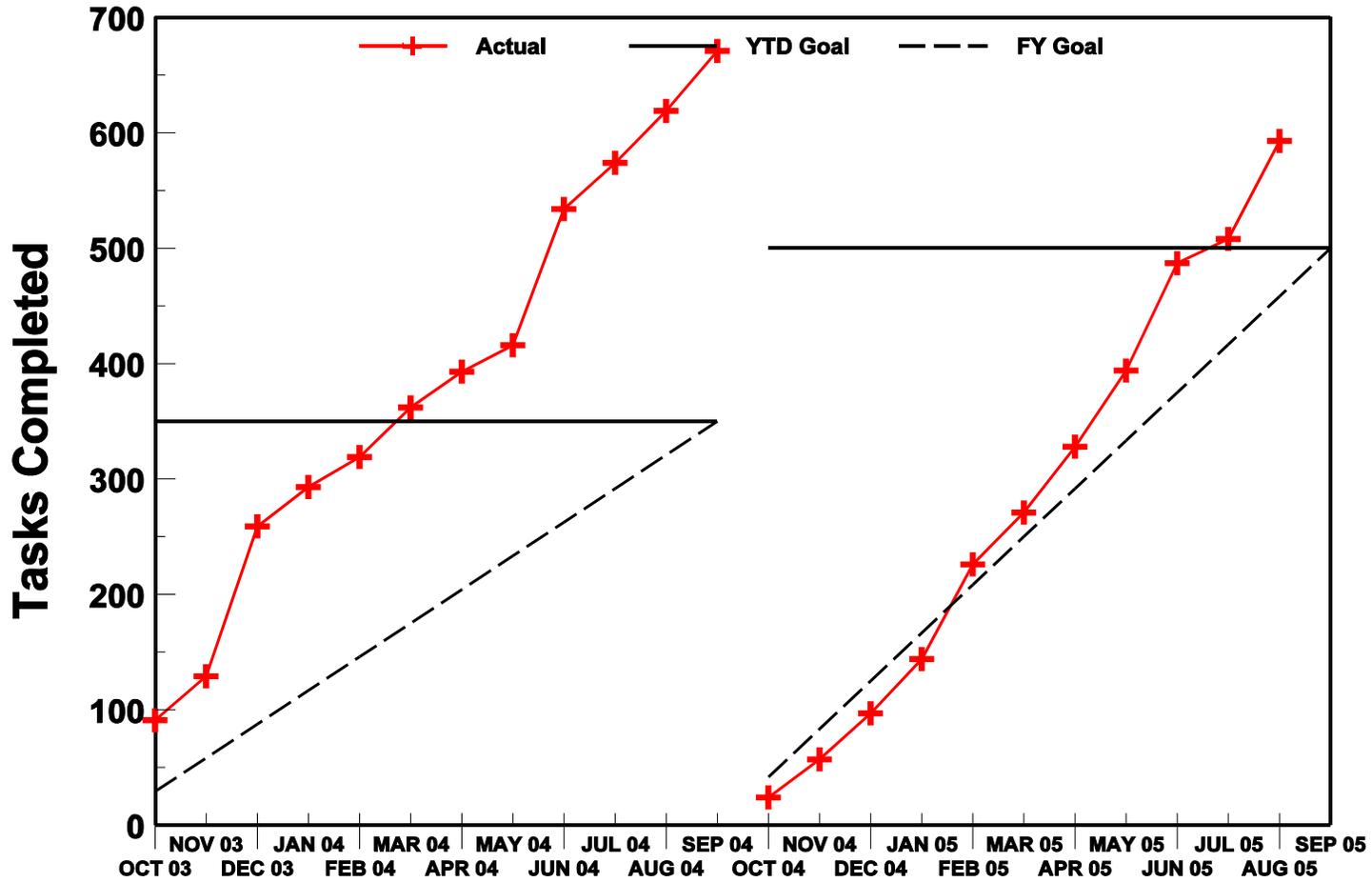
# Nuclear Reactor Safety - Reactor Licensing

## Performance Plan: Size of Licensing Action Inventory



# Nuclear Reactor Safety - Reactor Licensing

Performance Plan Target: Completed Other Licensing Tasks



## **V Status of License Renewal Activities**

### DC Cook, Units 1 and 2, License Renewal Application

The renewed licenses for DC Cook, Units 1 and 2, were issued on August 30, 2005, completing the review of the license renewal application 22 months after receipt.

### Browns Ferry, Units 1, 2, and 3, License Renewal Application

The staff issued the final supplemental environmental impact statement (SEIS) in June 2005 and the draft safety evaluation report (SER), identifying remaining open items, in August 2005.

### Millstone, Units 2 and 3, License Renewal Application

The staff issued the final SEIS in July 2005 and the SER in August 2005. A petition for late intervention and request for hearing was submitted in February 2005, and in July 2005, the Atomic Safety and Licensing Board (ASLB) certified the issue to the Commission for resolution.

### Point Beach, Units 1 and 2, License Renewal Application

The final SEIS was issued in August 2005. The draft SER, identifying remaining open items, was issued in May 2005, and the applicant's responses to the open items were received in July 2005. The staff is reviewing the applicant's open item responses and is preparing to issue the SER in October 2005.

### Nine Mile Point, Units 1 and 2, License Renewal Application

The Nine Mile Point license renewal application was submitted in May 2004, and the staff had been reviewing the application. The NRC staff informed the applicant that the responses to the staff's requests for additional information and the applicant's level of support were not adequate. Subsequently, the applicant requested that the review be placed on hold in order to address the issues. The applicant submitted an amended application in July 2005, and the staff has resumed its review of the application. The staff is assessing the information provided and will issue a revised review schedule taking into account the duration of the hold and the additional time needed to complete the review of the application.

### Brunswick, Units 1 and 2, License Renewal Application

The Brunswick license renewal application is currently under review, and the staff is preparing requests for additional information. The draft SEIS was issued in August 2005, and the draft SER, identifying any remaining open items, is scheduled to be issued in December 2005.

### Monticello License Renewal Application

The Monticello license renewal application is currently under review, and the staff is preparing requests for additional information. The draft SEIS is scheduled to be issued in February 2006,

and the draft SER, identifying any remaining open items, is scheduled to be issued in April 2006. A request for hearing has been received in response to the NRC's notice of opportunity for hearing, and an ASLB has been established.

#### Palisades License Renewal Application

The Palisades license renewal application is currently under review, and the staff is preparing requests for additional information. The draft SEIS is scheduled to be issued in February 2006, and the draft SER, identifying any remaining open items, is scheduled to be issued in June 2006. A request for hearing has been received in response to the NRC's notice of opportunity for hearing and an ASLB has been established.

#### Oyster Creek License Renewal Application

On July 22, 2005, the NRC received an application for renewal of the operating license for Oyster Creek. The staff is currently performing the required acceptance review of the application and, if the application is found acceptable, will docket the application, notice an opportunity for hearing, and issue the review schedule.

### **VI Status of Review of Private Fuel Storage, Limited Liability Corporation's Application for a License to Operate an Independent Spent Fuel Storage Installation on the Reservation of the Skull Valley Band of Goshute Indians**

In August, litigation continued on the application by Private Fuel Storage, L.L.C. (PFS) for a license to construct and operate an independent spent fuel storage installation on the Reservation of the Skull Valley Band of Goshute Indians in Skull Valley, Utah. As noted in previous monthly reports, on February 24, 2005, the ASLB issued its decision on the aircraft crash issue in favor of the applicant, finding that the probability of an F-16 aircraft crash accident or ordnance impact into the facility that would result in a release of radioactive materials is less than  $1 \times 10^{-6}$ /yr (one in one million per year).

On March 7, 2005, the State of Utah filed a motion with the ASLB for reconsideration of this decision. On April 6, 2005, the ASLB held oral arguments on the State's motion. On May 24, 2005, the ASLB affirmed its aircraft crash decision. On June 13, 2005, the State filed a petition with the Commission for review of the ASLB's aircraft crash decision. Responses to the State's petition have been filed by both PFS and the NRC Staff. In August, the matter of issuing a license to PFS was before the Commission.

**VII Enforcement Process and Summary of Reactor Enforcement by Region**

<b>Reactor Enforcement Actions*</b>						
		Region I	Region II	Region III	Region IV	TOTAL
Severity Level I	August 05	0	0	0	0	0
	FY 05 YTD Total	0	0	2	0	2
	FY 04 Total	0	0	0	0	0
	FY 03 Total	0	0	0	0	0
Severity Level II	August 05	0	0	0	0	0
	FY 05 YTD Total	0	0	2	0	2
	FY 04 Total	0	1	0	0	1
	FY 03 Total	0	0	0	0	0
Severity Level III	August 05	0	0	0	0	0
	FY 05 YTD Total	2	1	3	2	8
	FY 04 Total	1	2	4	0	7
	FY 03 Total	2	0	4	0	6
Cited Severity Level IV or GREEN	August 05	2	0	0	0	2
	FY 05 YTD Total	4	0	3	0	7
	FY 04 Total	1	0	2	3	6
	FY 03 Total	1	0	2	1	4
Non-Cited Severity Level IV or GREEN	August 05	0	2	13	48	63
	FY 05 YTD Total	239 <sup>2</sup>	188	257	277	961
	FY 04 Total	271	175	290	301	1037
	FY 03 Total	211	164	253	184	812

\* Numbers of violations are based on enforcement action tracking system data that may be subject to minor changes following verification. The numbers shown as Severity Level I, II, III or IV refer to the number of Severity Level I, II, III, and IV violations or problems. The monthly totals generally lag by 30 days due to inspection report and enforcement development.

<sup>2</sup> The Non-Cited Severity Level IV or GREEN FY 05 YTD Total for Region I has been increased by 22 to reflect a correction in the July 2005 data.

Escalated Reactor Enforcement Actions Associated with the Reactor Oversight Process						
		Region I	Region II	Region III	Region IV	Total
Notices of Violation Related to RED, YELLOW, or WHITE Findings	August 05 RED	0	0	0	0	0
	August 05 YELLOW	0	0	0	0	0
	August 05 WHITE	1	0	0	0	1
	FY 05 YTD Total	5 <sup>3</sup>	1	0	1	7
	FY 04 Total	3	4	7	6	20
	FY 03 Total	6	1	7	1	15

### Description of Significant Actions Taken During August 2005

Entergy Nuclear Operations, Inc. (Indian Point Nuclear, Unit 2) EA-05-102 - On August 1, 2005, a Notice of Violation was issued for a violation associated with a White significance determination process finding involving leakage of water from a safety injection accumulator that contained absorbed nitrogen gas. The licensee's evaluation and correction of this condition adverse to quality was inadequate. The violation cited the licensee's failure to recognize the potential for nitrogen gas intrusion into the safety injection system and the resultant potential challenge to safety injection pump operation, and to assess adequately industry operating experience related to safety injection accumulator back leakage.

### VIII Power Reactor Security Regulations

In response to the terrorist attacks on September 11, 2001, the NRC and the nuclear industry have taken many actions to ensure the security at nuclear power plants. A series of Advisories, Orders, and Regulatory Issue Summaries have been and, as needed, continue to be issued to strengthen further the security of NRC-licensed facilities and control of nuclear materials.

In March 2003, the NRC initiated a pilot program for full force-on-force exercises, which used expanded adversary characteristics that were developed as a result of the increased post 9/11 threat. The pilot was completed and NRC is now implementing exercises at each site on a three-year cycle. The purpose of the force-on-force exercises is to assess and improve, as necessary, performance of defensive strategies at licensed facilities. The NRC retains responsibility for oversight of the mock adversary force and evaluation of licensee performance.

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<sup>3</sup>The Notices of Violation Related to White Findings FY 05 YTD for Region I has been increased by one to reflect changes in the July 2005 data. A summary has not been provided because this is security related. Additionally, the same data has been decreased by one to reflect a correction in the February 2005 data.

Measures have been established to minimize any possibility for a conflict of interest with respect to responsibilities for physical protection. To date, mock adversary force personnel have performed adequately in the force-on-force exercises in which they have participated.

The NRC continues to support the U.S. Department of Homeland Security (DHS)/Homeland Security Council (HSC) initiative to enhance integrated response planning for power reactor facilities. The staff is continuing to work with HSC, DHS, Federal Bureau of Investigation and others to develop plans to address recommended actions. The staff is also developing Emergency Action Levels (EAL) specifically for events involving credible imminent threats. The EAL development program includes plans to coordinate issues with other agencies and state and local governments.

The NRC is continuing the site-specific spent fuel pool assessments begun July 5, 2005. The NRC is conducting these assessments to identify additional mitigation strategies to enhance the spent fuel pool cooling safety function under severe circumstances challenging the functional capabilities of the plant. Thirty-five plant assessments have been completed as of September 2, 2005. The spent fuel pool assessments for the remaining sites will be completed by the end of the calendar year. In addition, the NRC is continuing with the structural analyses of two spent fuel pools to provide added assurance of spent fuel pool structural safety margin. These analyses will also be completed by the end of the calendar year.

On August 26, 2005, the Commission published a Proposed Rule on fitness-for-duty (10 CFR Part 26), including both drug/alcohol testing and fatigue-related provisions, for public comment (70 FR 50442). The principal reason for the rulemaking is to update the rule and enhance consistency with advances in other relevant Federal rules and guidelines. The comment period ends on December 27, 2005.

## **IX Power Upgrades**

There are three types of power upgrades. A measurement uncertainty recapture (MUR) power upgrade is a power upgrade of less than 2 percent and is based on the use of more accurate feedwater flow measurement techniques. Stretch power upgrades are power upgrades that are typically on the order of less than 7 percent and are within the design capacity of the plant. Stretch power upgrades require only minor plant modification. Extended power upgrades (EPUs) are power upgrades beyond the design capacity of the plant and, thus, require major plant modification.

Licensees have been applying for and implementing power upgrades since the 1970s as a way to increase the power output of their plants. The NRC staff has been conducting power upgrade reviews since then, and to date, has completed 105 such reviews. Approximately 13,250 megawatts-thermal (MWt) or 4,417 megawatts-electric (MWe) to the Nation's electric generating capacity or an equivalent of about four nuclear power plant units has been gained through implementation of power upgrades at existing plants. The NRC staff currently has 12 plant-specific power upgrade applications under review. The 12 applications under review include three MUR power upgrades, two stretch power upgrades, and seven EPUs.

Regarding the Vermont Yankee (VY) EPU, which was submitted on September 10, 2003, the NRC projects that it will not complete this review by the end of FY 2005 and will, therefore, not meet the goal of completing 100 percent of its reactor licensing actions within 2 years. The scheduled review of the VY EPU has been extended further to allow a thorough review of key technical issues associated with the safe operation at the higher power levels. In addition, to address litigation issues, the Atomic Safety and Licensing Board hearing will be held after the NRC staff issues a final Safety Evaluation, currently scheduled for February 24, 2006.

In June 2005, the NRC staff surveyed all licensees to obtain information on whether they planned to submit power uprate applications over the next 5 years. Based on this survey and information obtained since the survey, licensees plan to request power uprates for 20 nuclear power plant units over the next 5 years. If approved, these power uprates will result in an increase of about 4,368 MWt or approximately 1,456 MWe.

## **X Status of the Davis-Besse Nuclear Power Station**

Interim reports to be provided in September 2005, March 2006, and September 2006.

## **XI New Reactor Licensing**

The NRC expects to license the next generation of nuclear power plants using Part 52 to Title 10 of the *Code of Federal Regulations*, (10 CFR Part 52). 10 CFR Part 52 governs the issuance of standard design certifications, early site permits, and combined licenses for nuclear power plants.

### Design Certifications and Pre-Application Meetings

On August 24, 2005, General Electric (GE) submitted their design certification application for the Economic Simplified Boiling Water Reactor (ESBWR) design. On August 30, 2005, GE met with the NRC staff, in a public meeting, to provide a high-level overview of the ESBWR design to facilitate the staff's acceptance review of the design certification application. The reactor design review and accompanying rule issuance is scheduled to take 42 - 60 months to complete.

On September 21- 22, 2005, the NRC staff is scheduled to hold a public meeting with Pebble Bed Modular Reactor (Pty) Ltd. to discuss the technical issues for the planning of a Pebble Bed Modular Reactor pre-application review.

On September 27, 2005, the NRC staff is scheduled to hold a non-public meeting to discuss proprietary information with Westinghouse related to the International Reactor Innovative and Secure (IRIS) test plan to support the Evaluation Model Development and Assessment Process (EMDAP).

### Early Site Permits (ESPs)

The staff is currently reviewing three ESP applications. Dominion Nuclear North Anna, LLC (Dominion) submitted an ESP application in September 2003 for its North Anna site located in Louisa County, Virginia. The final safety evaluation report (FSER) for the North Anna ESP was issued on June 16, 2005. By letter dated July 25, 2005, Dominion notified the staff that its North

Anna ESP application was modified to replace incorrect figures. On September 30, 2005, the NRC staff will be issuing the final NRC technical report (i.e., NUREG), which contains the revised FSER and the final ACRS report (issued July 18, 2005). The revisions to the FSER are minor in nature, did not warrant the issuance of a supplemental FSER, and will be noted in the NUREG. The draft Environmental Impact Statement (EIS) for the North Anna ESP was issued on December 10, 2004, and the Final EIS is scheduled to be issued in December 2005.

In September 2003, Exelon Generation Company, LLC submitted an ESP application for its Clinton site located in Harp Township, DeWitt County, Illinois. The NRC staff issued the draft SER for the Exelon ESP application for the Clinton site on February 10, 2005. The staff issued the supplemental draft SER with open items on August 26, 2005. The FSER is scheduled to be issued on February 17, 2006. The draft EIS for the Clinton ESP was issued on March 2, 2005, and the Final EIS is scheduled to be issued in July 2006.

System Energy Resources Inc. submitted an ESP application in October 2003 for its Grand Gulf site located in Claiborne County, Mississippi. The FSER is scheduled to be issued on October 21, 2005. The draft EIS for the Grand Gulf ESP was issued on April 21, 2005, and the Final EIS is scheduled to be issued in April 2006.

In addition to the three ESP applications under review, the staff anticipates the submission of an ESP application from Southern Nuclear Operating Company (SNC) during the summer of 2006. On August 17, 2005, SNC notified the NRC staff that Georgia Power Company had directed them to pursue an ESP/Combined License (COL) at the Vogtle Electric Generating Plant site located near Waynesboro, Georgia. The NRC staff has scheduled a public meeting with SNC on September 8, 2005, to discuss the application schedule and other application related activities. SNC started seismic boring activities on August 29, 2005, and is scheduled to finish at the end of September 2005. A preliminary date for a staff audit of the seismic boring activity/quality assurance has been set for the week of September 12, 2005.

#### Combined License

On August 18, 2005, the NRC staff received two letters from prospective applicants, including one from South Carolina Electric & Gas Company, on their plans for future generation. The information contained in these letters is considered to be company confidential and will be withheld from public disclosure.

By letter dated August 24, 2005, Progress Energy notified the NRC staff that it expects to identify both a site and a vendor by the end of calendar year 2005, with the potential submittal of an application for a COL in the first quarter of calendar year 2008.

#### Regulatory Infrastructure

On August 15, 2005, the staff issued comment letter number 5 on NEI 04-01, Revision D, "Draft Guideline for Combined License Applicants Under 10 CFR Part 52." This is the last letter containing first round comments.

On October 24, 2005, the NRC staff is scheduled to issue a proposed rulemaking to revise 10 CFR Part 52. The changes to the rule are based on lessons learned during the previous design certification reviews and on discussions with external stakeholders about the ESP and COL processes.

#### Other New Reactor Licensing Information

On August 10, 2005, NRC staff met with Native American Tribal Governments in Moosehide Village, located in Dawson City, Yukon, Canada, at the Yukon River Inter-Tribal Watershed Council's Bi-Annual Summit. The staff presented information and answered questions related to NRC's organization, role and responsibilities, and reactor licensing process. In addition, the staff discussed opportunities for Tribal Government participation in NRC's licensing process, and for consultation with Tribal Governments during the potential licensing of a reactor to be sited in Galena, Alaska. Regarding consultation between NRC and the potentially affected Tribal Governments, the NRC staff plans to work with a recently formed consultation protocol working group comprised of tribal representatives from each major Yukon River region, as designated by the leadership of the Tribal Governments, to understand further tribal consultation interest as it relates to the proposed reactor in Galena, Alaska.