

July 13, 2004

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) 2004 Energy and Water Development Appropriations Act, House Report 108-212 and Senate Report 108-105, directed the Nuclear Regulatory Commission (NRC) to continue to provide a monthly report on the status of its licensing and regulatory duties. 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 sixty-sixth report, which covers the month of May 2004. 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.

The previous report provided information on a number of significant activities. These activities included extending the operating license for an additional 20 years for the R. E. Ginna Nuclear Power Plant; issuing a Regulatory Issue Summary in anticipation of increased grid loading this summer to remind nuclear power plant licensees of NRC requirements for offsite power supplies and for risk assessments prior to maintenance on backup systems; and dispatching a special inspection team to the Perry Nuclear Power Plant.

I would like to provide follow-up information on the preliminary results of the team inspection at the Perry Nuclear Power Plant. The plant, located in Perry, Ohio, restarted on June 4, 2004, following repair of a failed Emergency Service Water (ESW) pump. The licensee determined the cause of the May 21, 2004 repetitive pump failure to be corrosion of a pump shaft component and deficiencies during pump reassembly in response to an earlier failure in September 2003. Prior to plant restart, all ESW pumps at the plant were rebuilt using an improved design and materials. The NRC Special Inspection Team, assigned in response to the May 21 ESW pump failure, concluded the repairs were appropriate to correct the problem; however, the team determined the original corrective actions to the September 2003 pump failure were ineffective. Additionally, the NRC recently completed a broad team inspection which evaluated the utility's corrective actions in response to three equipment related inspection findings of low to moderate safety significance that occurred between October 2002 and September 2003. The team conducted a public exit meeting on June 21, 2004, and concluded that the licensee's assessment and corrective actions to the three inspection findings were not thorough. The NRC will continue to closely monitor the licensee's performance and intends to conduct another follow-up inspection on these issues, in accordance with Perry's placement on NRC's Action Matrix.

Since our last report, the NRC dispatched an Augmented Inspection Team (AIT) to the Palo Verde Nuclear Generating Station, located near Wintersburg, Arizona, and operated by

Arizona Public Service Company, to form a better understanding of the causes of – and the plant response to – the shutdown of the three reactors at the site on June 14. An electrical grid disturbance has been identified as the initiating cause of the shutdowns. The AIT's findings will be made public in an inspection report to be issued within 30 days of completion of on-site reviews.

I informed you in our April report that NRC will conduct a detailed engineering inspection at the Vermont Yankee Nuclear Station that we believe is appropriate for addressing our oversight responsibilities regarding public health and safety in conjunction with the proposed 20 percent power uprate request review. This inspection will be performed as part of a new engineering inspection program initiative that the NRC has been developing to enhance the Reactor Oversight Process. NRC's Region I office plans to conduct the new onsite engineering inspection during the weeks of August 9, August 16, and August 30, 2004 and a public exit meeting is planned for mid-September. Entergy, Vermont Yankee's operating company, is also continuing their investigation of two fuel rod segments missing from their container in the spent fuel pool. NRC's special inspection team was on site during the week of June 14 to monitor the progress of Entergy's investigation. NRC's special inspection activities will continue after Entergy issues its final report, currently scheduled for July 2004, to determine the adequacy of Entergy's investigation.

Recently, the Commission and the NRC staff also:

- received responses from Louisiana Energy Services (LES) to three staff Requests for Additional Information (RAIs) on its application for a gas centrifuge uranium enrichment plant. The RAIs addressed issues in the safety analysis report, the emergency plan, the physical security plan, the fundamental nuclear material control plan, and the environmental report. The staff is continuing its review of the application. The staff also performed an on-site technical review in Hobbs, New Mexico, to review geotechnical and structural design issues associated with the LES application and toured the proposed site for the LES facility in Eunice, New Mexico, and the neighboring Waste Control Specialists Resource Conservation and Recovery Act (RCRA) disposal facility. A pre-hearing conference was held before the Atomic Safety and Licensing Board in early June to hear arguments on proposed contentions in the related adjudicatory hearing.
- conducted the annual assessment meeting with Public Services Enterprise Group (PSEG), the owner of the Salem and Hope Creek Generating Stations, on June 16, 2004. The meeting also included discussions of the results of three assessments PSEG had undertaken to review the work environment at the Salem and Hope Creek stations, as well as PSEG's plans for improving that environment. In a January 28, 2004 letter, NRC had shared the interim results of an NRC special review of the work environment at Salem and Hope Creek and requested an in-depth PSEG assessment of the work environment. PSEG stated that it is developing a comprehensive plan to improve not only the work environment, but also the corrective action and work management programs. PSEG corporate officers reiterated a commitment made in response to NRC's January 28 letter to dedicate needed resources to improve the material condition of the facilities as well as the work environment; to docket a description of its action plan by June 25, 2004; to periodically meet with the NRC to discuss progress; and to conduct periodic assessments to measure improvement. Current information related to the work

environment assessments is available in ADAMS – the NRC’s online document retrieval system – under Accession Number ML040610856. ADAMS is accessible via NRC’s website at <http://www.nrc.gov>. NRC will determine what additional regulatory action to take following review of PSEG’s action plan.

- published in the Federal Register, dated June 14, 2004 (69 FR 32836), a final rule amending NRC Rules of Practice (10 CFR Part 2) applicable to the use of the Licensing Support Network (LSN) and the electronic hearing docket in the licensing proceeding on the disposal of high-level radioactive waste at a geologic repository. The amendments establish the basic requirements and standards for the submission of adjudicatory materials to the electronic hearing docket by parties to the high-level radioactive waste repository licensing proceeding. The amendments also address the issue of reducing the unnecessary loading of duplicate documents on individual participant LSN document collection servers (web sites); the continuing obligation of LSN participants to update their documentary material after the initial certification; the Secretary of the Commission’s determination that the DOE license application is electronically accessible; and the provisions on material that may be excluded from the LSN.
- issued a Bulletin to (1) advise pressurized water reactor (PWR) licensees that current methods of inspecting some alloys used in the fabrication of pressurizer penetrations and steam space piping connections may need to be supplemented with additional measures to detect and adequately characterize flaws due to primary water stress corrosion cracking, (2) request PWR licensees to provide the NRC with information related to the materials from which these components were fabricated, and (3) request PWR licensees to provide the NRC with information related to the inspections that have been performed and those that are planned to ensure that degradation of alloy materials used in the fabrication of the components will be identified, adequately characterized, and repaired. Experience with these components indicates that this issue is not an immediate safety problem.
- issued a Regulatory Issue Summary (RIS) 2004-08, “Results of The License Termination Rule Analysis,” to inform addressees of the NRC’s analysis of issues associated with implementing NRC’s License Termination Rule, to provide a schedule for future actions to address these issues, and to inform addressees of opportunities for stakeholder comment.
- issued RIS 2004-09, “Status on Deferral of Active Regulation of Ground-Water Protection at In Situ Leach Uranium Extraction Facilities,” to inform interested parties of NRC’s proposal to defer active ground-water regulation at In Situ Leach facilities to the U.S. Environmental Protection Agency (EPA)-authorized States. The NRC shares the regulatory oversight of ground-water at ISL facilities with the EPA and EPA-authorized States under the Safe Drinking Water Act. The RIS summarizes the process that the NRC plans to use to assure that EPA-authorized States’ ground-water protection programs provide adequate protection of public health and safety, and the environment, equivalent to the NRC program.
- issued RIS 2004-10, “Preparation and Scheduling of Operator Licensing Examinations,” to inform addressees of the NRC staff’s need for updated information on projected site-specific operator licensing examination schedules and the estimated numbers of

applicants planning to take operator licensing examinations and the NRC's generic fundamentals examinations. This information will help the NRC to plan more effectively the use of its resources.

- participated in and evaluated, along with the Federal Emergency Management Agency, a full emergency preparedness exercise at the Indian Point nuclear power plant located in the vicinity of New York City. Emergency preparedness exercises are designed to test the ability of the plant's operators to coordinate with federal, state, and local authorities to minimize any public exposure to radiation released from the site during an accident. For the first time, a simulated terrorist attack by a large commercial aircraft was part of the exercise and included participation by additional federal agencies.
- published in the Federal Register, dated June 16, 2004 (69 FR 33536), a final rule to permit existing reactor licensees to voluntarily adopt fire protection requirements contained in the National Fire Protection Association (NFPA) Standard 805, "Performance-Based Standard for Fire Protection for Light Water Reactor Electric Generating Plants, 2001 Edition." The NRC considers that NFPA 805 specifies fire protection requirements or provides an acceptable methodology and performance criteria for licensees to identify fire protection requirements that are an acceptable alternative to the 10 CFR 50, Appendix R fire protection features.
- approved on May 28, 2004, the transfer of the operating license for the R. E. Ginna Nuclear Power Plant from Rochester Gas & Electric Corp. (RG&E) to R. E. Ginna Nuclear Power Plant, LLC., an indirect, wholly owned subsidiary of Constellation Generation Group.
- approved on June 10, 2004, the transfer of the operating license for the Kewaunee Nuclear Power Plant from Wisconsin Public Service Corporation, Wisconsin Power and Light Company, and Nuclear Management Company, to Dominion Energy Kewaunee, a subsidiary of Dominion Resources.

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

Sincerely,

*/RA/*

Nils J. Diaz

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 Environmental 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

**MAY 2004**

Enclosure

## TABLE OF CONTENTS<sup>1</sup>

XII.	Implementing Risk-Informed Regulations . . . . .	2
XIII.	Revised Reactor Oversight Process . . . . .	2
XIV.	Status of Issues in the Reactor Generic Issue Program . . . . .	2
XV.	Licensing Actions and Other Licensing Tasks . . . . .	2
XVI.	Status of License Renewal Activities . . . . .	8
XVII.	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 . . . . .	9
XVIII.	Enforcement Process and Summary of Reactor Enforcement by Region . . . . .	10
XIX.	Power Reactor Security Regulations . . . . .	12
XX.	Power Uprates . . . . .	13
XXI.	Status of the Davis-Besse Nuclear Power Station . . . . .	14

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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 May 2004. 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 staff continues to make progress on tasks involving the use of probabilistic risk information in many areas; however, there were no reportable milestones scheduled for completion during the month of May 2004.

## **II 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 consider the feedback in future ROP refinements. Recent activities include the following:

- On May 4, 2004, the Commission was briefed on the results of the Agency Action Review Meeting that occurred in April 2004. During the briefing, NRC staff made presentations related to the annual ROP Self-Assessment report, the status of improvements to the Significance Determination Process (SDP), and issues that arose from the Industry Trends Program.
- On May 26, 2004, NRC staff hosted the Mitigating System Performance Indicator (MSPI) public meeting and discussed its concerns with the as-piloted MSPI. These concerns were documented in Commission Paper SECY 04-0053, "Reactor Oversight Process Self-Assessment for Calendar Year 2003," and the staff's May 2004 public meeting notice for the MSPI meeting. During the meeting, industry and the Nuclear Energy Institute took a new position and agreed that the SDP and ROP policies governing assessment of licensee performance would remain unchanged from its current form with MSPI implementation. Many of the staff's concerns were ameliorated in view of this new industry position. At the conclusion of the meeting, all stakeholders agreed that they understood the issues and that the intent of the meeting was met. The staff plans to hold future meetings to identify possible changes to the as-piloted MSPI.
- On May 27, 2004, NRC staff hosted the periodic ROP public meeting at the NRC Headquarters office. Major topics discussed during the meeting included SDP timeliness, Safety System Functional Failure performance indicator (PI) improvements, Reactor Coolant System Leakage PI improvements, and the Scrams with the Loss of Normal Heat Removal PI.

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

Resolution of the issues in the Reactor Generic Issue Program continues to be on track in accordance with the schedules previously submitted.

## **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 FY 2004 NRC

Performance Plan incorporates three output measures related to licensing actions -- number of licensing action completions 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 2.206 petitions, NRC review of generic topical reports, NRR responses to regional requests for assistance, NRC review of licensee 10 CFR 50.59 analyses and FSAR updates, or other licensee requests not requiring NRC review and approval before they can be implemented by licensees. The FY 2004 NRC Performance Plan incorporates one output measure related to other licensing tasks -- number of other licensing tasks completed.

Recently, 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, have resulted in the NRC reprogramming resources to accommodate the additional work. One of the programs affected by the reprogramming of resources is operating power reactor licensing actions. As a result, by the end of FY 2004, the size of the licensing action inventory will most likely exceed the goal of  $\leq 1000$  and the goal of having at least 96 percent of the licensing action applications less than one year old will not be met. Nevertheless, we anticipate meeting our goal of completing more than 1500 licensing actions in FY2004. The NRC is working with the licensees on prioritizing the licensing action workload in order to minimize the impact on the licensees.

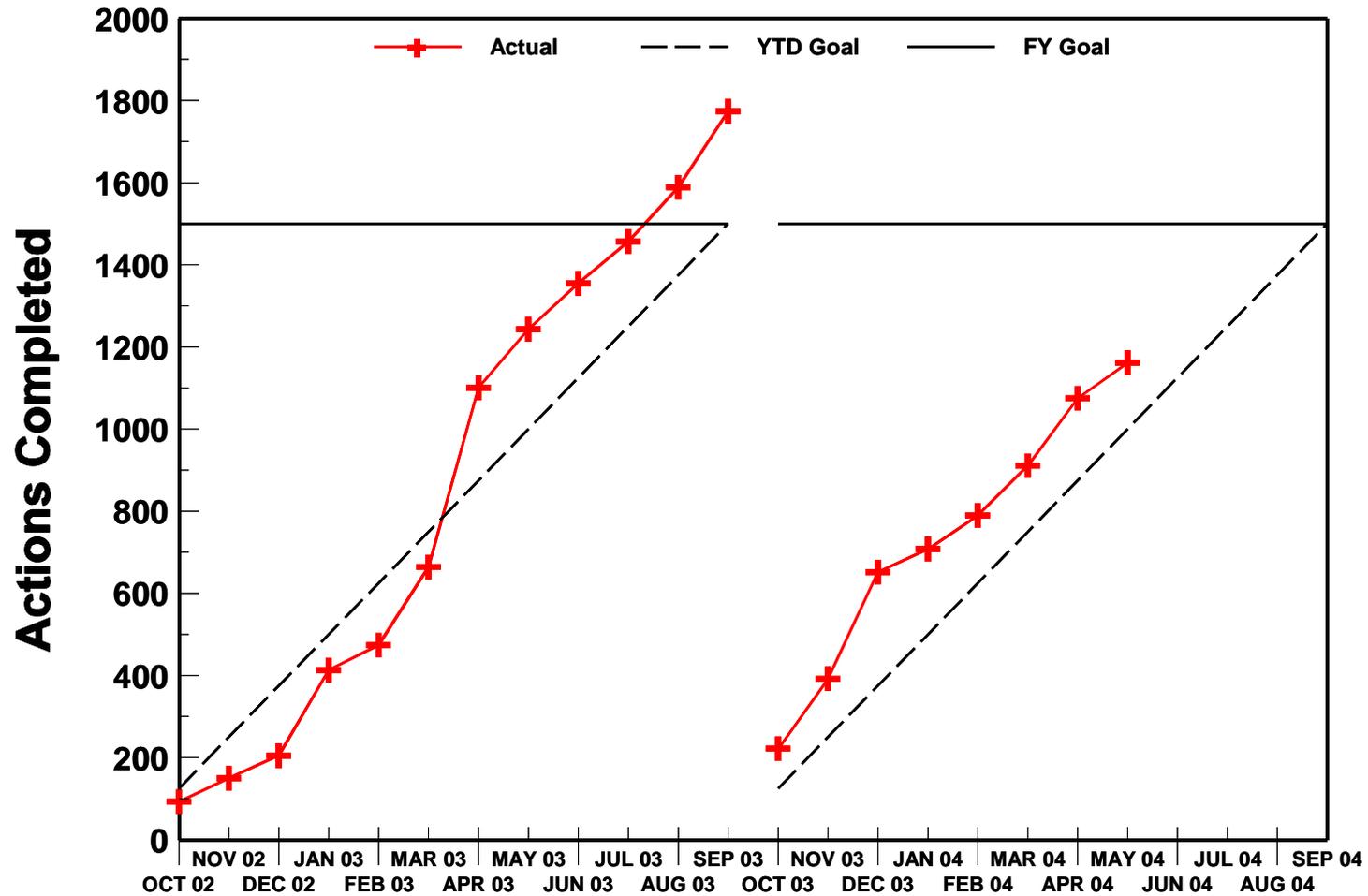
The actual FY 2002 and FY 2003 results, the FY 2004 goals, and the actual FY 2004 results, as of May 31, 2004, for the four NRC Performance Plan output measures for operating power reactor licensing actions and other licensing tasks are shown in the table below.

PERFORMANCE PLAN				
Output Measure	FY 2002 Actual	FY 2003 Actual	FY 2004 Goals	FY 2004 Actual (thru 05/31/2004)
Licensing actions completed/year	1560	1774	$\geq 1500$	1162
Age of licensing action inventory	96.6% $\leq 1$ year; and 100% $\leq 2$ years	96% $\leq 1$ year; and 100% $\leq 2$ years	96% $\leq 1$ year and 100% $\leq 2$ years old	89.0% $\leq 1$ year; 100% $\leq 2$ years
Size of licensing action inventory	765	1296	$\leq 1000$	1227
Other licensing tasks completed/year	426	500	$\geq 350$	416

The following charts demonstrate NRC's trends for the four operating power reactor licensing action and other licensing task output measure goals.

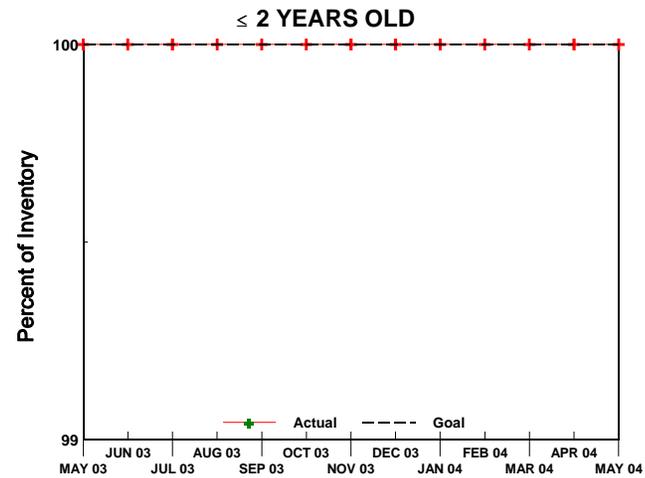
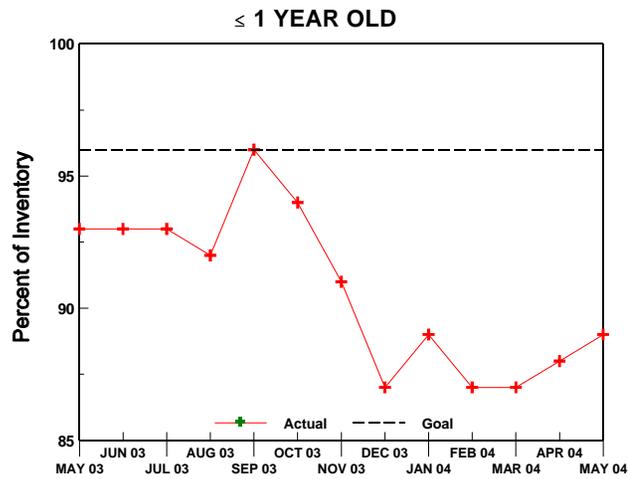
# Nuclear Reactor Safety - Reactor Licensing

Performance Plan Target: Completed Licensing Actions



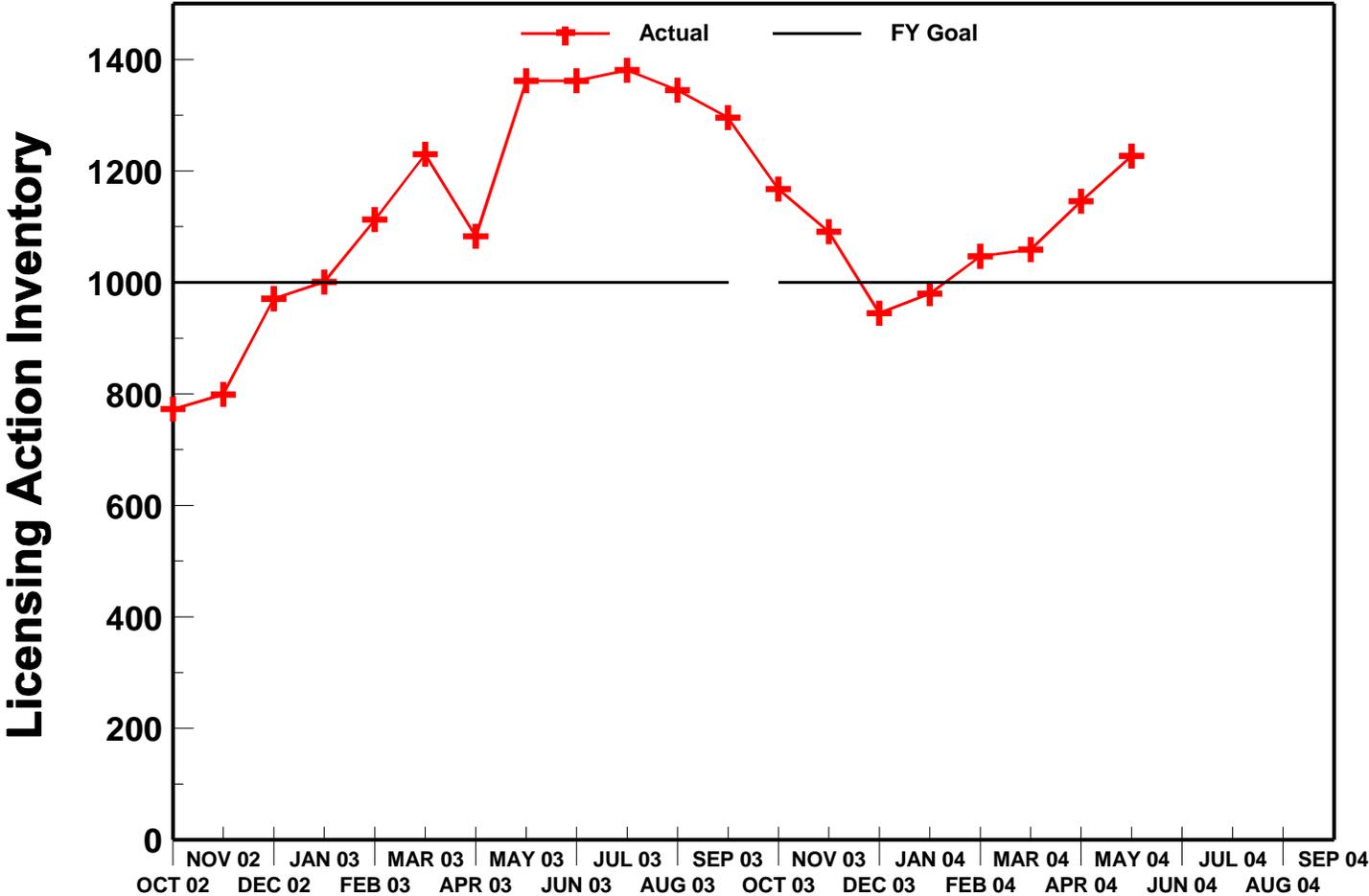
# Nuclear Reactor Safety - Reactor Licensing

## Performance Plan Target: Age of Licensing Action Inventory



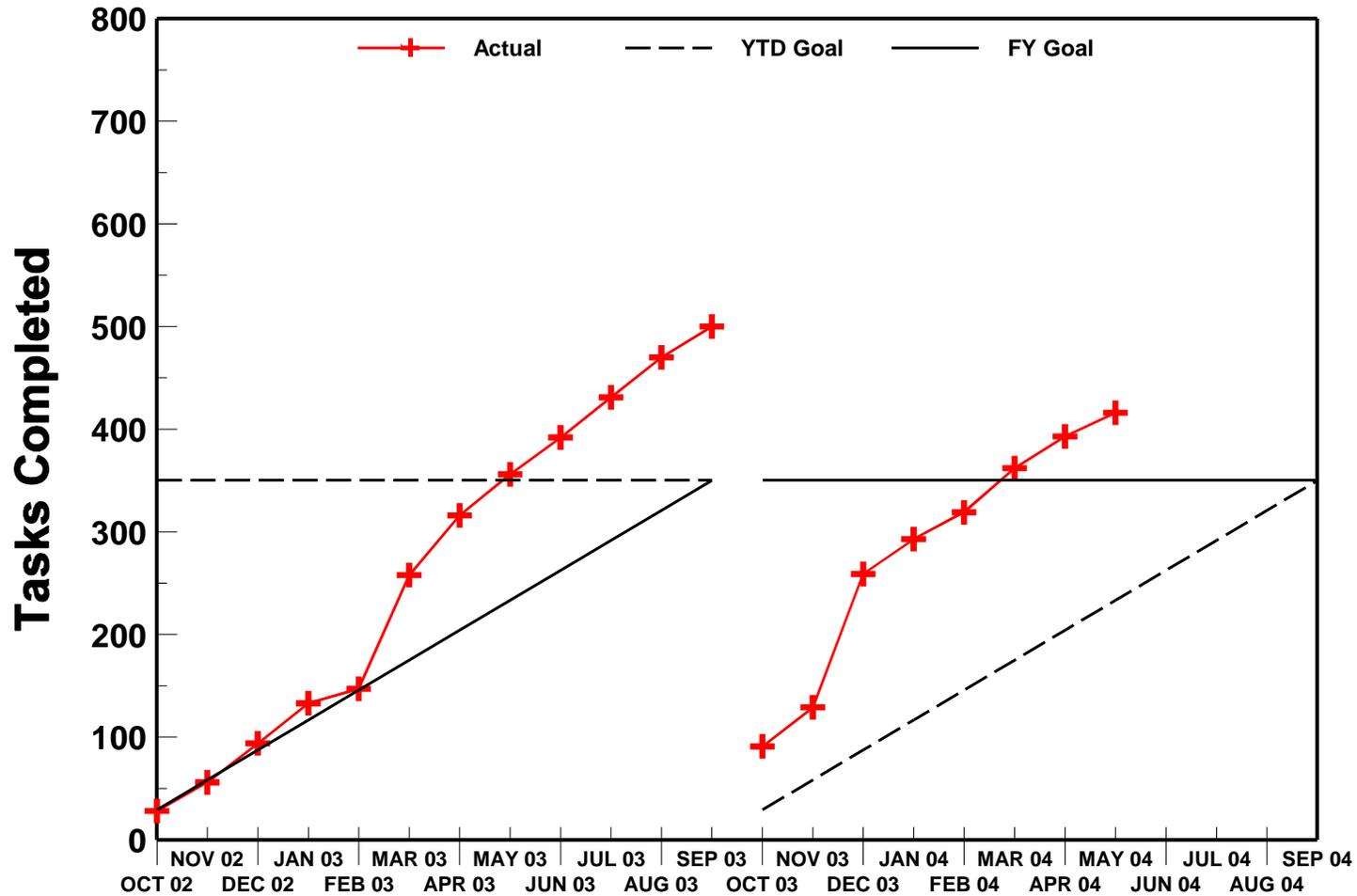
# Nuclear Reactor Safety - Reactor Licensing

## 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**

### Ginna License Renewal Application

The renewed license for Ginna was issued on May 19, 2004, completing the NRC's review of the license renewal application (22 months after receipt).

### Dresden, Units 2 and 3, and Quad Cities, Units 1 and 2, Combined License Renewal Application

The staff is addressing comments received on the draft supplemental environmental impact statements (SEISs) and is preparing to issue the final SEISs in July 2004 for both Dresden and Quad Cities. The staff is reviewing the applicant's responses to open items identified in the safety evaluation report and is preparing to issue the safety evaluation report in July 2004.

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

The Farley 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 August 2004 and the safety evaluation report, identifying any remaining open items, is scheduled to be issued in October 2004.

### Arkansas Nuclear One, Unit 2, License Renewal Application

The Arkansas Unit 2 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 September 2004 and the safety evaluation report, identifying any remaining open items, is scheduled to be issued in November 2004.

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

The Cook 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 September 2004 and the safety evaluation report, identifying any remaining open items, is scheduled to be issued in December 2004.

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

The Browns Ferry 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 December 2004 and the safety evaluation report, identifying any remaining open items, is scheduled to be issued in August 2005.

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

The Millstone 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 December 2004 and the safety evaluation report, identifying any remaining open items, is scheduled to be

issued in February 2005. A request for hearing has been received in response to the NRC's notice of opportunity for hearing.

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

The Point Beach 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 January 2005 and the safety evaluation report, identifying any remaining open items, is scheduled to be issued in May 2005.

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

On May 27, 2004, the NRC received an application for renewal of the operating licenses for Nine Mile Point, Units 1 and 2. The staff is currently performing the required acceptance review of the application and, if 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**

Litigation continues on the application by Private Fuel Storage, L.L.C. (PFS) for a license to construct and operate an independent spent fuel storage installation (ISFSI) on the Reservation of the Skull Valley Band of Goshute Indians in Skull Valley, Utah. As noted in previous monthly updates, one issue concerning the consequences of an F-16 aircraft crash at the proposed facility remains to be litigated with the Atomic Safety and Licensing Board (ASLB).

During this reporting period, the NRC staff completed its evaluation of crash consequences, and submitted its reports to the ASLB and other parties on May 11, 2004. Depositions of the parties' expert witnesses commenced in May and will conclude in June 2004. Hearings will begin in August 2004. The ASLB will likely issue its decision on crash consequences no later than January 2005.

Finally, the Commission currently has under consideration certain matters raised on appeal from prior ASLB decisions. These involve PFS's petition for review of a January 2004 ASLB ruling on a financial assurance contention; the State of Utah's petition for review of the ASLB's rulings on the redaction of proprietary information; and the State of Utah's petitions for review of the ASLB's decisions on three environmental contentions.

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

### Reactor Enforcement by Region

Reactor Enforcement Actions*						
		Region I	Region II	Region III	Region IV	TOTAL
Severity Level I	May 2004	0	0	0	0	0
	FY 04 YTD	0	0	0	0	0
	FY 03 Total	0	0	0	0	0
	FY 02 Total	0	0	0	0	0
Severity Level II	May 2004	0	0	0	0	0
	FY 04 YTD	0	1	0	0	1
	FY 03 Total	0	0	0	0	0
	FY 02 Total	1	0	0	0	1
Severity Level III	May 2004	0	1	1	0	2
	FY 04 YTD	1	2	4	0	7
	FY 03 Total	2	0	4	0	6
	FY 02 Total	2	0	0	0	2
Severity Level IV or Green	May 2004	0	0	0	1	1
	FY 04 YTD	1	0	2	1	4
	FY 03 Total	1	0	2	1	4
	FY 02 Total	0	0	2	0	2
Non-Cited Severity Level IV or Green	May 2004	35	1	7	41	84
	FY 04 YTD	177**	132	202	199	710
	FY 03 Total	211	164	202	184	761
	FY 02 Total	207	89	201	151	648

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

\*\*This number was corrected to account for violations that were not included in the count submitted in April. The report was filed before the violations were entered into the database used to calculate the number of enforcement actions.

<b>Escalated Reactor Enforcement Actions Associated with the Reactor Oversight Process</b>						
		Region I	Region II	Region III	Region IV	Total
Notices of Violation Related to White, Yellow or Red Findings	5/04 Red	0	0	0	0	0
	5/04 Yellow	0	0	0	0	0
	5/04 White	1	0	0	0	1
	FY 04 YTD	3	1	7	4	15
	FY 03 Total	6	1	7	1	15
	FY 02 Total	5	4	6	8	23

**Description of Significant Actions taken in May 2004\***

**Tennessee Valley Authority (Browns Ferry Nuclear Plant Unit 1) EA-04-063**

On May 12, 2004, a Notice of Violation was issued for a Severity Level III violation involving four examples of a failure to adhere to the requirements of 10 CFR 50, Appendix B, Criterion V. All four examples were associated with the Long-Term Torus Integrity Program, and involved: failure to evaluate or incorporate numerous deficient welds into Deficiency Fix Requests sketches; failure to perform numerous repairs on the correct welds; omission of numerous welds requiring repair from Work Orders; and failure of Quality Control to independently verify the correct location of numerous weld repairs.

**PSEG Nuclear LLC (Hope Creek Nuclear Generating Station) EA-04-086**

On May 10, 2004, a Notice of Violation was issued for a violation associated with a White SDP finding involving the failure of the service water system traveling screen that increased the likelihood of the loss of service water initiating event and affected the ability of a service water pump train to mitigate the effects of initiating events. The violation cited the failure of maintenance procedures to contain adequate instructions and the failure to follow procedures.

**FirstEnergy Nuclear Operating Company (Davis-Besse Nuclear Power Station) EA-03-209**

On May 7, 2004, a Notice of Violation was issued for a Severity Level III violation involving the failure to provide the NRC with complete and accurate information in the licensee's response to NRC Generic Letter (GL) 98-04 regarding protective coating deficiencies and foreign material in containment.

\*Security related enforcement actions are not included in the statistics in the above Tables or in the Description of Significant Action due to the sensitive nature of security findings.

## 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 issued to strengthen further the security of NRC-licensed facilities and control of nuclear materials.

Orders were issued on April 29, 2003, to revise the threat against which individual power reactor licensees and category I fuel cycle facilities must be able to defend (design basis threat [DBT]), limit the number of hours that security personnel can work, and enhance training and qualification requirements for security personnel. Licensees are required to implement the Orders no later than October 29, 2004. Implementation of these Orders will include employing revised security plans, revised safeguards contingency plans, and revised guard training and qualification plans, and completing any necessary plant modifications. The NRC staff has endorsed appropriate implementing guidance and provided it to the industry so plant and program changes can be completed on schedule. All licensees submitted the required plans by the April 29, 2004 scheduled date and the NRC staff has commenced the review and approval process.

Orders were issued on October 23, 2003, to all nuclear reactor licensees and research reactor licensees who transport spent nuclear fuel. The licensees subject to the Order have been issued a specific license by NRC authorizing the possession of spent nuclear fuel and a general license authorizing the transportation of spent nuclear fuel in a transport package approved by the Commission in accordance with the Atomic Energy Act of 1954, as amended, and 10 CFR Parts 50 and 71.

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 purposes of the force-on-force exercises are to assess and improve, as necessary, performance of defensive strategies at licensed facilities. Pilot force-on-force exercises were completed at fifteen plants in 2003. The staff has provided a paper to the Commission summarizing lessons learned from the force-on-force pilot program and how these lessons can be factored into the full implementation of the force-on-force program. In the interim, the NRC plans to continue to conduct force-on-force exercises at a rate of approximately two per month through October 2004. Following implementation of the revised Design Basis Threat (DBT) on October 29, 2004, the NRC will implement triennial force-on-force testing at each nuclear power plant site.

During 2003, the staff suspended the physical protection portion of the baseline inspections in the Reactor Oversight Process. Instead, NRC inspections in the reactor security area were focused on licensee implementation of compensatory measures to address the post-9/11 threat environment. These compensatory measures were required by the Commission's February 25, 2002 Order. In late 2003, the staff developed a revised baseline inspection program for reactor security, taking into consideration the enhanced requirements and the higher threat environment. The staff began implementation of the revised baseline inspection program during the first week of March 2004. Until the DBT Orders are fully implemented, the inspections will focus on those elements of the program that have been fully implemented under previous orders, such as access authorization and security force work hour limits. During FY

2005, inspection efforts will focus on verifying implementation of the DBT. Routine implementation of all elements of the baseline inspection program will commence in 2006.

## **IX Power Uprates**

The staff has assigned power uprate license amendment reviews a high priority. The staff considers power uprate applications among the most significant licensing actions and is therefore conducting power uprate reviews on accelerated schedules.

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

Licensees have been applying for and implementing power uprates since the 1970s as a way to increase the power output of their plants. The staff has been conducting power uprate reviews since then and to date has completed 101 such reviews. Approximately 12,513 megawatts-thermal (4,173 megawatts-electric) or an equivalent of about four nuclear power plant units has been gained through implementation of power uprates at existing plants. The staff currently has 5 plant-specific applications under review.

The NRC staff approved an MUR power uprate for Fort Calhoun on January 16, 2004, which authorized an increase in the licensed thermal power limit to 1,524 megawatts-thermal. The Omaha Public Power District was subsequently informed by Westinghouse that the potential instrument inaccuracies in the Advanced Measurement and Analysis Group (AMAG) ultrasonic flow meter would not allow implementation of the MUR power uprate at Fort Calhoun. As a result, on May 7, 2004, prior to implementation of the MUR power uprate, the Omaha Public Power District submitted an exigent license amendment request to return Fort Calhoun's licensed thermal power limit to 1,500 megawatts-thermal, the pre-MUR level. On May 14, 2004, the NRC staff approved this license amendment.

There continues to be substantial public interest in the Vermont Yankee application for extended power uprate and requests for an independent engineering assessment at Vermont Yankee. The NRC received a letter from the Vermont Public Service Board on March 15, 2004, requesting that NRC perform an independent engineering inspection at Vermont Yankee to support the on-going NRC review of the Vermont Yankee application for extended power uprate. The NRC staff issued a letter on May 4, 2004, responding to the Vermont Public Service Board. In this letter, the staff noted that the NRC would perform a pilot engineering inspection at the site and that the NRC was willing to meet with the Board. A meeting has been scheduled for June 28, 2004, in Montpelier, Vermont. In March 2004, the Vermont State Senate passed a resolution requesting that the NRC perform an independent engineering assessment at Vermont Yankee. The State Senate sent the NRC a letter on March 17, 2004, requesting this assessment at Vermont Yankee. On May 24, 2004, the NRC staff issued a letter to the Vermont State Senate addressing the five specific actions requested in the March 17 letter related to an independent engineering assessment and the Vermont Yankee EPU

application. The May 24 letter also noted that the NRC staff had informed the Vermont Public Service Board that the NRC would perform a pilot engineering inspection at Vermont Yankee.

On May 21, 2004, an NRC staff member provided an overview of the NRC's power uprate program to the Chairman, State Office of Nuclear Safety (SUJB), Czech Republic. The SUJB Chairman was very interested in the NRC's uprate process and plant challenges due to power uprates and noted that the Dukovany nuclear power plant may seek an 4.5 to 10 percent power uprate sometime around 2009.

In January 2004, the staff completed a survey of nuclear power plant licensees to obtain information regarding industry's plans related to power uprate applications. Based on this survey, licensees plan to submit power uprate applications for 26 nuclear power plant units in the next 5 years. These include 8 measurement uncertainty recapture power uprates, 6 stretch power uprates, and 12 extended power uprates. Planned power uprates are expected to result in an increase of about 5,296 megawatts-thermal (1,766 megawatts-electric).

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

Interim reports to be provided in September 2004, March 2005, and September 2005.