

May 2, 2003

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) 2003 Energy and Water Development Appropriations Act, House Reports 107-681 and 108-10, directed the Nuclear Regulatory Commission (NRC) to continue to provide a monthly report on the status of its licensing and regulatory duties and expanded the scope of the report to include information on the status of the Davis-Besse Nuclear Power Station. 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 fifty-first report, which covers the month of February 2003 (enclosed).

Our last report provided information on a number of significant NRC activities. These activities include: efforts to increase the protection of high-risk radioactive sources that could be used in a radiological dispersal device (RDD); issuance of a nationwide safeguards advisory on March 17, 2003, consistent with the launch of Operation Liberty Shield and the increase in the national threat level to high (Orange), to all NRC and Agreement State licensees authorized to possess and/or transport the types and quantities of radioactive isotopes which are of greatest concern for potential malevolent use in a RDD; NRC participation in an international conference sponsored by the Department of Energy (DOE) and the International Atomic Energy Agency that focused on key issues relating to the security of high-risk radioactive sources and actions that must be taken world-wide to improve the protection of these sources; and renewal of the operating licenses of Virginia Electric & Power Company's North Anna Power Station, Units 1 and 2, and Surry Power Station, Units 1 and 2.

I am pleased to inform you that on April 29, after extensive deliberation and interaction with stakeholders, the Commission approved changes to the design basis threat (DBT) and issued three Orders to all operating commercial nuclear power plants. The first Order revises the DBT for radiological sabotage. The second Order imposes work hour controls on the security workforce. The third Order enhances training and qualification requirements for security personnel. On April 29, the Commission also issued an Order to two category I fuel cycle facilities in Virginia and Tennessee. The Order amends the DBT for theft or diversion of strategic quantities of special nuclear material. We are separately providing you details on all of these actions.

In addition, on February 27, 2003, Duke Energy Corporation submitted an application for amendment of the facility operating license for the Catawba Nuclear Station, Units 1 and 2, and the McGuire Nuclear Station, Units 1 and 2. The amendment would, if granted, allow the irradiation of lead test assemblies of mixed oxide (MOX) fuel in one of the McGuire or Catawba

units. This license amendment request was made as part of the ongoing United States-Russian Federation plutonium disposition program. The goal of this nuclear non-proliferation program is to dispose of surplus plutonium from nuclear weapons by converting the material into MOX fuel and irradiating the fuel in nuclear reactors.

Since our last report, the Commission and the NRC staff also:

- published in the Federal Register on April 18, 2003, (68 FR 19162) a document requesting public comment on the NRC's proposed criteria for the treatment of individual requirements in a regulatory analysis. The criteria are intended to address the concern that aggregating or "bundling" different requirements in a single analysis could potentially mask the inclusion of an inappropriate individual requirement. The comment period for this action closes July 2, 2003.
- received notification, on March 10, 2003, of an Atomic Safety and Licensing Board (ASLB) decision regarding the Private Fuels Storage consortium (PFS) application to build a spent nuclear fuel storage facility in Utah. The ASLB issued a Partial Initial Decision (regarding "Credible Accidents") (LBP-03-04), in which it resolved in favor of the State a contention regarding hazards posed to the facility from aircraft crashes and ordnance impacts. The ASLB found that the probability of an F-16 aircraft crash on the facility was in excess of the Commission's threshold for the annual probability of occurrence. The ruling has the effect of denying the PFS application unless further proceedings are held on the issue of the consequences of an F-16 impact on the facility. In accordance with its ruling, the parties have filed their positions regarding such further proceedings, on March 31, 2003. At the same time, the applicant and staff filed petitions asking for Commission review of the Board's decision.
- conducted five public meetings, on March 11 and April 15, in the vicinity of the Davis-Besse Nuclear Power Station. The NRC's Davis-Besse plant oversight panel met with FirstEnergy Nuclear Operating Company officials to discuss the status of activities at the plant, including preparations for refueling the reactor and the licensee's radiation protection program. Meetings were also held to discuss NRC activities involving the plant and to respond to questions and concerns from the public.
- issued annual performance assessment letters to 102 of the nation's 103 operating nuclear power plants and posted the letters on the NRC web site. The Davis-Besse nuclear facility in Ohio was not issued an assessment letter because regulatory activities there are being managed by the NRC's Inspection Manual 0350 Process. The assessment letters are available on the NRC web site at: <http://www.nrc.gov/NRR/OVERSIGHT/ASSESS/index.html> and through the Agencywide Documents and Access Management System (ADAMS).
- conducted four public meetings: on March 6, in Bethesda, Maryland; on March 12-13 in Las Vegas and Pahrump, Nevada; and on March 19, in Rosemont, Illinois, to obtain comments on Test Protocols Report (draft NUREG-1768) for the NRC's spent fuel transportation Package Performance Study. The Package Performance Study focuses research on the probability and consequences of severe transportation accidents. The public comment period closes on May 30, 2003.

- released the draft final version of the Yucca Mountain Review Plan (YMRP) on March 24, 2003. The staff will use this plan to review an expected application from DOE to construct a high-level nuclear waste geologic repository at Yucca Mountain, Nevada. The principal purpose of the YMRP is to ensure quality and uniformity in NRC staff reviews. A previous draft of the plan was released in March 2002, and public comments were invited during a 5-month period that ended August 12, 2002. The current draft YMRP is being made available for information. It has not yet received Commission approval and is subject to change. If the Commission approves the plan, the NRC will issue a final version and publish an associated Federal Register Notice that will include a summary of public comments received and changes made to the March 2002 draft.
- notified U.S. Enrichment Corporation, Inc., on March 13, 2003, that its license application to possess and use special nuclear material, source material, and by-product material in the American Lead Cascade Facility (Lead Cascade) was docketed for staff technical review.
- published in the Federal Register (68 FR 12571), on March 17, 2003, a final rule concerning decommissioning trust provisions for nuclear power plants. The final rule requires licensees that are no longer rate-regulated, or that no longer have access to a non-bypassable charge for decommissioning, have decommissioning trust agreements in a form acceptable to the NRC.

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

Sincerely,

*/RA/*

Jeffrey S. Merrifield  
Acting Chairman

Enclosure:  
Monthly Report

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 Joe Barton, 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 W.J. "Billy" Tauzin, 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

**FEBRUARY 2003**

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 February 2003. 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**

Although the staff continues to make progress on tasks involving use of probabilistic risk information in many areas, there were no significant milestones accomplished during the month of February 2003.

## **II. Reactor Oversight Process**

The NRC continues to implement the Reactor Oversight Process (ROP) at all nuclear power plants. The NRC also continues to meet with interested stakeholders on a periodic basis to collect feedback on the efficacy of the process and considers stakeholder feedback in making refinements to the ROP. For the month of February, the regional offices completed the End-of-Cycle (EOC) Review Meetings for all plants. EOC Summary meetings were also conducted during this month, which are informational meetings involving the NRR Executive Team and the Regional Administrators to discuss plants that meet the criteria of Inspection Manual Chapter 0305, "Operating Reactor Assessment Program."

## **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.

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

Licensing actions are defined as requests for: 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 licensee requests requiring NRC review and approval before they can be implemented. The FY 2003 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" are defined as: review of licensee responses to NRC requests for information through generic letters or bulletins, responses to 10 CFR 2.206 petitions, review of licensee topical reports, responses to regional requests for assistance, review of licensee 10 CFR 50.59 analyses and Final Safety Analysis Report (FSAR) updates, or review of other licensee requests. The FY 2003 NRC Performance Plan incorporates one output measure related to "other licensing tasks," specifically, the number of other licensing tasks completed.

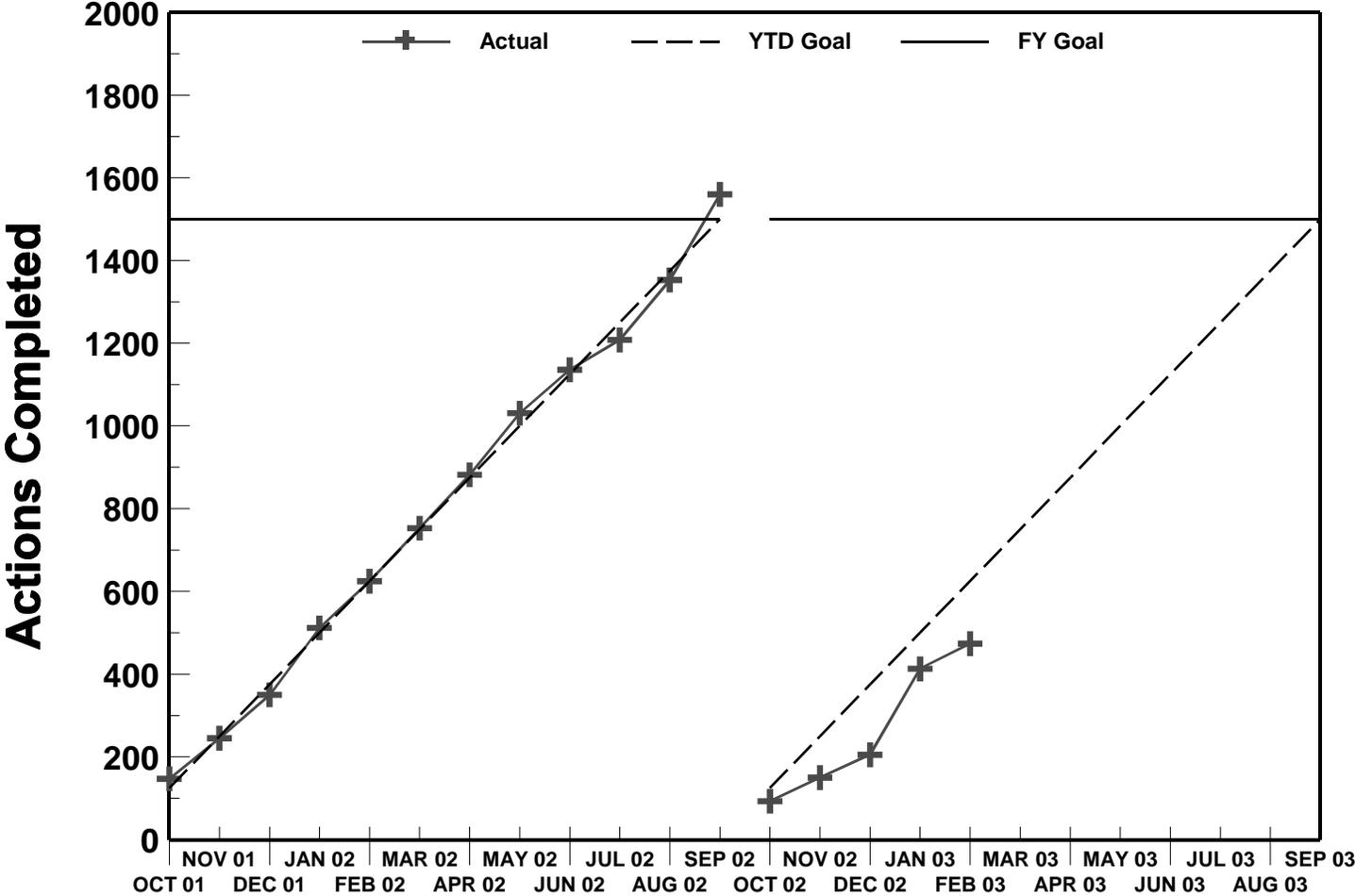
Actual FY 2001 and FY 2002 results, FY 2003 goals, and actual FY 2003 results (as of February 28, 2003) for the four NRC Performance Plan output measures for licensing actions and other licensing tasks are shown in the table below.

PERFORMANCE PLAN				
Output Measure	FY 2001 Actual	FY 2002 Actual	FY 2003 Goals	FY 2003 Actual (thru 02/28/2003)
Licensing actions completed/year	1617	1560	≥ 1500	474
Age of licensing action inventory	96.9% ≤ 1 year; and 100% ≤ 2 years	96.6% ≤ 1 year; and 100% ≤ 2 years	96% ≤ 1 year and 100% ≤ 2 years old	94.0% ≤ 1 year; 100% ≤ 2 years
Size of licensing action inventory	877	765	≤ 1000	1113
Other licensing tasks completed/year	523	426	≥ 350	147

The following charts demonstrate NRC's FY 2003 trends for the four licensing action and other licensing task output measure goals.

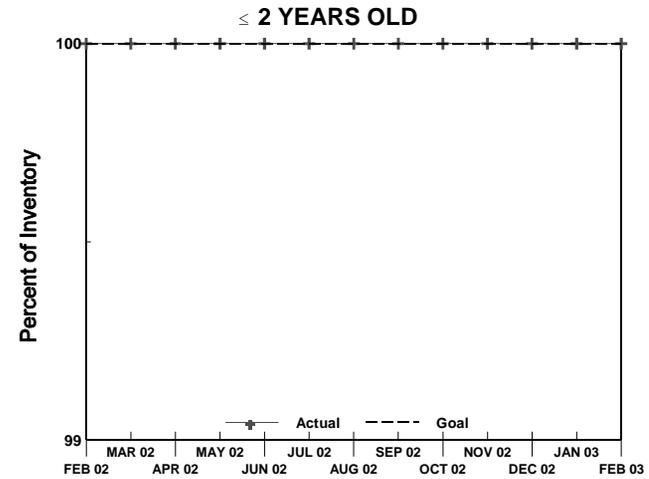
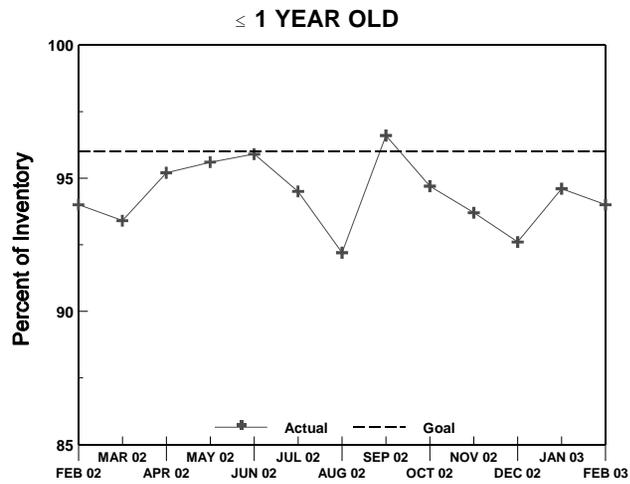
# Nuclear Reactor Safety - Reactor Licensing

Performance Plan Target: Completed Licensing Actions



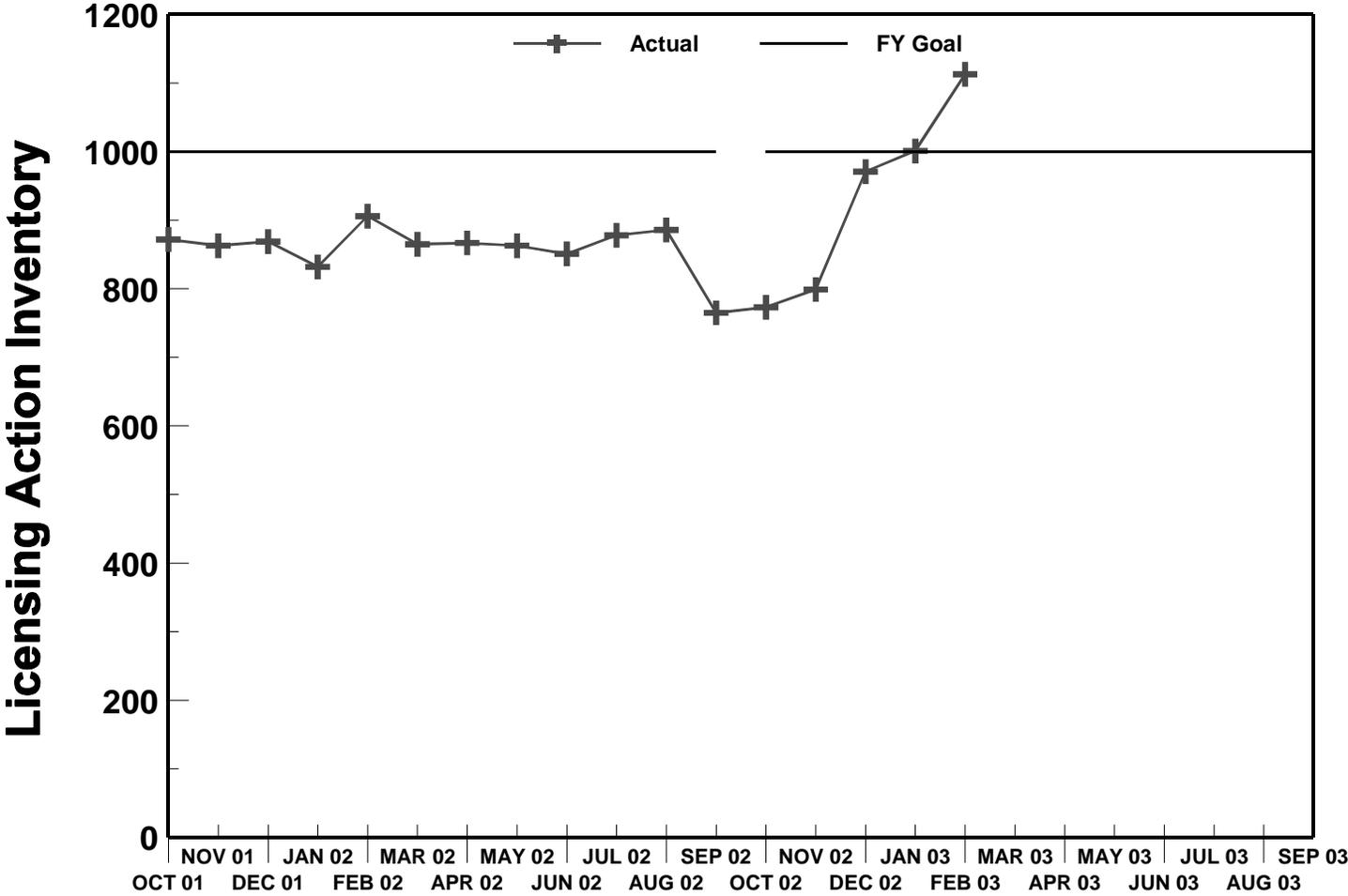
# Nuclear Reactor Safety - Reactor Licensing

## Performance Plan Target: Age of Licensing Action Inventory



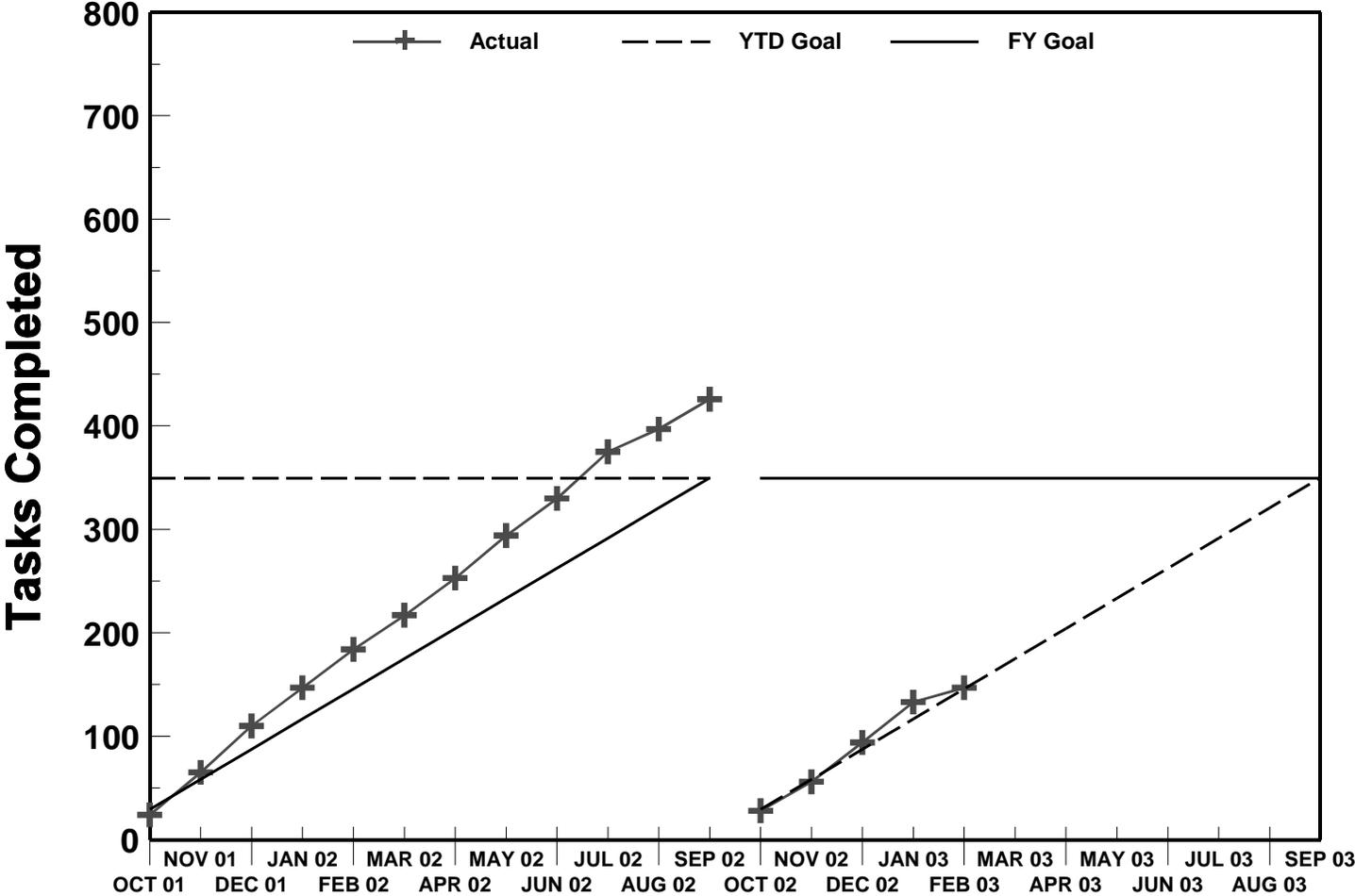
# Nuclear Reactor Safety - Reactor Licensing

## 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**

### Surry, Units 1 and 2, and North Anna, Units 1 and 2, Combined Renewal Applications

The staff issued the final supplemental environmental impact statement (SEIS) for Surry and North Anna in December 2002. The safety evaluation report resolving the open items was issued in November 2002. The staff is completing activities to support a decision on renewing the licenses by March 2003.

### McGuire, Units 1 and 2, and Catawba, Units 1 and 2, Combined Renewal Applications

The staff issued the final SEISs for McGuire and Catawba in December 2002. The safety evaluation report resolving the open items was issued in January 2003. The staff is supporting completion of the hearing process leading to a decision on renewing the licenses by December 2003.

In January 2002, the Atomic Safety and Licensing Board (ASLB) admitted contentions filed by Nuclear Information and Resource Service and the Blue Ridge Environmental Defense League, petitioners in the Catawba and McGuire license renewal proceeding. The petitioners contended that the applicant's severe accident mitigation alternative (SAMA) analysis was incomplete. The NRC staff and Duke Energy Corporation appealed the ASLB decision. In an Order, the Commission admitted in part the SAMA contention. In December 2002, the Commission issued another Order to clarify that the ASLB had misinterpreted the earlier Order and provided guidance to the ASLB with respect to the relevance of the partially-admitted contention. Duke Energy petitioned the ASLB to dismiss the SAMA contention, and the ASLB recently granted Duke Energy's request.

In its December 2002 Order, the Commission reinstated late-filed contentions that had been submitted in May 2002. These late-filed contentions are currently being reviewed by the ASLB for admissibility.

### Peach Bottom, Units 2 and 3, Renewal Application

The staff issued the final SEIS in January 2003. The revised safety evaluation report addressing the resolution of open items was issued in February 2003. A decision on issuance of the renewed license is scheduled for May 2003.

### St. Lucie, Units 1 and 2, Renewal Application

The staff issued the draft SEIS for public comment in November 2002, and the comment period ended in January 2003. The staff is addressing the comments received and is preparing the final SEIS, which is scheduled to be issued by June 2003. The staff issued the safety evaluation report identifying open items in February 2003.

### Fort Calhoun Renewal Application

The staff issued the draft SEIS for public comment in January 2003 and the public comment period ends in April 2003. The safety requests for additional information were issued in

October 2002, and the applicant's responses were received in December 2002. The staff is reviewing the applicant's responses and preparing to issue the safety evaluation report, which will identify any remaining open items, by April 2003.

#### Robinson Unit 2 Renewal Application

Environmental requests for additional information were issued in October 2002, and the responses were received in January 2003. The staff is reviewing the responses and is preparing the draft SEIS which is scheduled to be issued by May 2003. The safety requests for additional information were issued in February 2003, and the applicant's responses are scheduled to be submitted by April 2003.

#### Ginna Renewal Application

The Ginna renewal application is currently under review, and the staff is preparing requests for additional information. Environmental requests for additional information were issued in January 2003, and the applicant's responses are expected in March 2003. The safety requests for additional information are scheduled to be issued by March 2003.

#### Summer Renewal Application

The Summer renewal application is currently under review, and the staff is preparing requests for additional information. All environmental requests for additional information were issued in January 2003. The safety requests for additional information are scheduled to be issued by April 2003.

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

On January 3, 2003, the NRC received an application for renewal of the Dresden, Units 2 and 3, and Quad Cities, Units 1 and 2, operating licenses. The staff is currently performing the required acceptance review 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**

During this reporting period, the Atomic Safety and Licensing Board (ASLB) issued an Order informing the parties to the Private Fuel Storage (PFS) adjudicatory proceeding that a decision in the proceeding would be delayed from late February 2003 to early March 2003 due to problems caused by weather-related closures and travel problems in the Washington, DC metropolitan area.

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

**Reactor Enforcement by Region**

<b>Reactor Enforcement Actions*</b>						
		Region I	Region II	Region III	Region IV	TOTAL
Severity Level I	Feb 2003	0	0	0	0	0
	FY 03 YTD	0	0	0	0	0
	FY 02 Total	0	0	0	0	0
	FY 01 Total	0	0	0	0	0
Severity Level II	Feb 2003	0	0	0	0	0
	FY 03 YTD	0	0	0	0	0
	FY 02 Total	1	0	0	0	1
	FY 01 Total	0	1	0	0	1
Severity Level III	Feb 2003	0	0	0	0	0
	FY 03 YTD	1	0	1	0	2
	FY 02 Total	2	0	0	0	2
	FY 01 Total	1	1	1	1	4
Severity Level IV	Feb 2003	0	0	0	0	0
	FY 03 YTD	0	0	0	0	0
	FY 02 Total	0	0	2	0	2
	FY 01 Total	1	0	2	1	4
Non-Cited Severity Level IV	Feb 2003	11	14	10	4	39
	FY 03 YTD	93	60	81	73	307
	FY 02 Total	207	89	201	151	648
	FY 01 Total	279	105	201	139	724

\* Numbers of violations are based on enforcement action tracking system (EATS) data that maybe 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.

<b>Escalated Reactor Enforcement Actions Associated with the Reactor Oversight Process</b>						
		Region I	Region II	Region III	Region IV	Total
NOVs Related to White, Yellow or Red Findings	2/03 Red	0	0	0	0	0
	2/03 Yellow	0	0	0	0	0
	2/03 White	0	1	2	0	3
	FY 03 YTD	3	1	4	0	8
	FY 02 Total	5	4	6	8	22
	FY 01 Total	8	4	4	3	19

### **Description of Significant Actions taken in February 2003**

#### **FirstEnergy Nuclear Operating Company (Davis-Besse) EA-02-117 and EA-02-257**

On February 19, 2003, a Notice of Violation was issued for violations associated with two White Significance Determination Process (SDP) findings associated with the radiological controls related to steam generator nozzle dam installation conducted on February 20, 2002. The violations cited the failure of the licensee to conduct an adequate evaluation of the radiological hazards in order to characterize the radiological work conditions and to take timely and suitable measurements to monitor adequately the occupational intake of the material by workers during and following steam generator nozzle dam installation.

#### **Duke Energy Corporation (Oconee) EA-02-243**

On February 7, 2003, a Notice of Violation was issued for a violation associated with a White SDP finding involving the possible loss of high pressure injection (HPI) pump function during a postulated high energy line break/tornado event recovery. The violation cited the licensee's failure to implement properly the vendor's written instructions for attaching the electrical connectors on the pre-staged Unit 3 HPI pump emergency power supply cable from the auxiliary service water (ASW) switchgear.

### **VIII. Power Reactor Security Regulations**

In response to the terrorist attacks on September 11, 2001, the NRC and the nuclear industry have taken a number of actions to ensure the security of nuclear power plants. Immediately following the terrorist attacks on the World Trade Center and the Pentagon, the NRC advised nuclear power plant licensees to go to the highest level of security, and all promptly did so. A series of Advisories, Orders, and Regulatory Issue Summaries have since been issued to enhance security at NRC-licensed facilities and control of nuclear materials.

The specific actions are sensitive, but generally include requirements for increased patrols, augmentation of the number and capabilities of security guards, additional security posts, installation of additional physical barriers, vehicle checks at greater stand-off distances,

enhanced coordination with law enforcement and military authorities, and more restrictive site access controls for personnel. Measures have been put in place to provide additional protection against land attacks, including the use of a substantial vehicle bomb, and against water-borne attacks. In addition, the NRC is actively developing additional requirements to enhance controls on security force fatigue as well as training and qualification standards.

The Commission is working closely with other Federal agencies to revise the design basis threat that provides the foundation for the security programs of nuclear power plant licensees. The Commission's Orders to these licensees in February 2002 effectively provide enhanced security in the interim while this work is underway.

Following the 9/11 attacks, NRC-evaluated security exercises were temporarily suspended to allow licensees to focus on putting increased security measures into place. NRC reinitiated these drills by initially exercising the table top component of the exercises that for the first time involved a wide array of Federal, State, and local law enforcement and emergency planning officials. The NRC has also expanded the exercises to include a force-on-force component. Full security performance reviews, including force-on-force exercises, will be carried out at each nuclear power plant on a three-year cycle instead of the eight-year cycle that had been used prior to September 11, 2001.

The staff is continuing an integrated review of the NRC's safeguards security program, which includes threat definition, vulnerability assessments, and regulatory improvements. This review has resulted in numerous improvements that have been implemented.

NRC continues to interact with the FBI, other intelligence and law enforcement agencies, the Department of Defense, and the Office of Homeland Security to ensure any changes to the NRC's programs are informed by pertinent input from all relevant U.S. agencies.

## **IX. Power Uprates**

The staff places a high priority on power uprate license amendment reviews. The staff considers power uprate applications among the most significant licensing actions and is, therefore, conducting power uprate reviews on an accelerated basis.

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 92 such reviews. Approximately 12,067 MWt (4022 MWe), or an equivalent of over three nuclear power plant units, have been gained through implementation of power uprates at existing plants. The staff currently has eight additional plant-specific applications under review. The staff also has two General Electric Nuclear Energy topical reports for power uprates under review.

The staff completed a survey of nuclear power plant licensees to obtain information regarding industry's plans related to future power uprate applications. Based on this survey and information obtained since, licensees plan to submit 35 additional power uprate applications in the next 5 years. These include 13 measurement uncertainty recapture power uprates (power uprates less than 2 percent), four stretch power uprates (power uprates up to about 7 percent), and 18 extended power uprates (power uprates greater than about 7 percent). Planned power

updates are expected to result in an increase of about 6809 MWt (2270 MWe). The staff utilizes this information for future planning.

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

FirstEnergy Nuclear Operating Company, owner of the Davis-Besse plant in Ohio, projects a late April 2003 startup of the plant, which has been shut down since February 2002. On February 26, 2003, the plant completed loading 177 fuel assemblies into the reactor. NRC inspectors monitored the reactor fuel reload.

The utility is implementing a performance improvement plan, and the NRC has prepared a Restart Check List that documents the issues to be resolved before a restart decision will be made. Fourteen separate NRC inspections are planned to provide sufficient information for the NRC staff to make any restart authorization decision.

The agency's Davis-Besse oversight panel, which coordinates regulatory activities for the plant recovery efforts, met with FirstEnergy Nuclear Operating Company officials on February 11, 2003, to review the plant status. The panel also conducted an evening public meeting to discuss the agency's activities and to respond to questions and comments.

On February 7, 2003, the NRC staff briefed Sen. George Voinovich and members of the Senate Environment and Public Works Committee staff. Commissioners testified before a Senate subcommittee hearing on February 13, 2003, on issues including the Davis-Besse reactor vessel head damage. On February 27, 2003, Jim Dyer, NRC Region III Regional Administrator and other members of the NRC staff briefed Ohio Governor Bob Taft and key members of his staff on the status of Davis-Besse safety issues.

On February 25, 2003, the NRC staff issued a preliminary conclusion that the performance deficiencies at the Davis-Besse Nuclear Power Plant that led to the cracking of the control rod drive tubes and the resulting corrosion damage to the reactor vessel head were categorized as "Red" ("high safety significance"). A "Red" finding is the most safety significant in the NRC's reactor oversight program, which incorporates four levels of safety significance.

Under the agency's Reactor Oversight Process, a "Red" finding mandates that strong actions be taken to improve plant performance, including development of a performance improvement plan by the utility and follow-up NRC inspections. In the case of Davis-Besse, however, the NRC proactively implemented its procedure for plants in extended shutdown with performance problems and established a special NRC Oversight Panel to coordinate the agency's response to the performance problems that led to the reactor vessel head damage.