

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

**March 2000**

**Enclosure 1**

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

The staff continues to make progress on tasks in five general areas: Rulemaking and Generic Communications; Licensing Activities; Reactor Oversight (Inspection, Enforcement and Licensee Performance Assessment); Events Assessment; and Probabilistic Risk Analysis (PRA) Methods and Standards. Noteworthy accomplishments in the areas of Rulemaking and Licensing Activities are summarized below:

### **Risk-informing the Special Treatment Requirements of 10 CFR Part 50**

On January 31, 2000, the Commission approved the staff's plans for risk-informing the special treatment requirements of the nuclear power reactor regulations contained in 10 CFR Part 50. On March 3, 2000, the staff published an Advance Notice of Proposed Rulemaking that seeks public comment on the direction, scope, and the effects of risk-informing the reactor regulatory program. The public comment period expires on May 17, 2000. The Commission believes that this effort will enhance public safety by allowing licensees and the NRC to focus resources on the most significant safety issues. By focusing on the most risk significant safety issues, this rulemaking will inherently provide a voluntary means to reduce unnecessary regulatory burdens and to improve efficiency and effectiveness. An alternative regulatory infrastructure will permit licensees to reduce special treatment requirements for those structures, systems, and components that do not contribute appreciably to safety. The Commission intends to solicit stakeholder input, interactions, and discussion throughout the rulemaking process.

### **Evaluation and Use of Joint Applications Reports**

The Joint Applications Report (JAR) submitted by an Owners Group contains the results of the impact of a proposed change on the plant-specific probabilistic risk assessments for a group of plants included in the Owners Group. Once accepted by the NRC, the JARs may then be referenced by the licensees for plant specific license amendment applications, thus expediting the NRC review. Previously the staff had provided guidance to the CE Owners-Group (CEOG) on the kinds of risk analysis results (i.e., parameters) that should be provided in the JAR, such that staff can approve future plant specific applications that reference the JAR. Any given JAR from the CEOG contains the results of the impact of a proposed change on the plant-specific probabilistic risk assessments for all 14 CEOG units, allowing for convenient cross-comparison and evaluation. The following are a few examples off CEOG JARs and their applications evaluated and approved by the staff:

- In December of last year, the staff completed evaluation and approval of the JAR supporting extension of a Containment Spray System train Technical Specification (TS) Allowed Outage Time (AOT) from 1, 2, or 3 days to 7. A plant-specific amendment application by Waterford 3 referencing this JAR has recently been evaluated and approved by the staff.
- Another CEOG JAR, has been used by Palo Verde units 1, 2, and 3, St. Lucie units 1 and 2, and Waterford 3 as reference in amendment applications for extending Low Pressure Safety Injection System train TS AOT from 3 to 7 days. The Palo Verde and St. Lucie amendments have been issued and the Waterford 3 application has been evaluated and approved by the staff.

- A third CEOG JAR, allowing an increase in Containment Isolation Valve TS AOT from 4 hours to 7 days has recently been evaluated and approved by the staff.

### Risk-Informed Licensing Actions

The staff continues to review risk-informed licensing actions as requested by the licensees. During February, the staff completed its review of a risk-informed inservice inspection application and authorized an alternative to ASME Section XI Code requirements allowing Browns Ferry Unit 3 a decrease in the number of pipe weld examinations by approximately 66 percent over the ten year inspection interval. The staff is currently reviewing a San Onofre application of a risk-informed inservice testing to determine if the test frequency of certain pumps and valves of low safety significance could be reduced.

## **II. Revised Reactor Oversight Process**

The staff has continued to meet on approximately a biweekly basis with the Nuclear Energy Institute and other stakeholders to refine the proposed changes to its oversight process. Recent activities include the following:

- On March 7, 2000, NRR staff briefed the Commission on the results of the revised reactor oversight process (RROP) Pilot Program. The Commission paper (SECY-00-0049 dated February 24, 2000) provided the results and lessons learned from the 6-month pilot program conducted on the RROP and the staff response to the Staff Requirements Memorandum (SRM) on SECY-99-007 and SECY-99-007A. On March 28, the Commission unanimously approved the initial implementation of its revised reactor oversight process to all commercial nuclear power plants (with the exception of D.C. Cook due to its extended shutdown) beginning on April 2.
- The NRC staff held public workshops in each of the four NRC regions in February and March 2000. The workshops provided information to NRC, Industry, and the public on the RROP. At the workshops, headquarters and regional representatives focused on the key attributes of the new oversight process and the associated program documents, and answered questions from the audience. Representatives from utilities, industry, States, NRC, and members of the public attended the workshops.
- NRC is in the midst of the final phase of the current reactor assessment process for non pilot plants. This includes the last round of Plant Performance Reviews (PPRs) in each of the regions, followed by screening meetings in headquarters, and the final Senior Management Meeting (SMM) in Region I on May 10-11, 2000. PPRs and screening meetings for the current assessment process for each region were completed on March 22, 2000. Letters to communicate the results of performance assessment and inspection plan for non pilot plants were issued on March 31, 2000.
- As part of its ongoing effort to communicate the results of plant performance to the stakeholders, the historical performance indicators for all plants, the current plant issues matrix and related inspection reports, mid-cycle assessment letters, and performance indicators for the pilot plants have been posted on the NRC internal and external WEB.

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

There are no changes in this area from the February 2000 report.

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

Licensing actions may be 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 it can be implemented by the licensee. The FY 2000 NRC Performance Plan incorporates three output measures related to licensing actions. These are: size of the licensing action inventory, number of licensing action completions per year, and age of the licensing action inventory.

Other licensing tasks may be defined as: licensee responses to NRC requests for information through generic letters or bulletins, NRC responses to 2.206 petitions, NRC review of licensee topical reports, NRR responses to regional requests for assistance, and NRC review of licensee 10 CFR 50.59 analyses, and FSAR updates. The FY 2000 NRC Performance Plan incorporates one output measure related to other licensing tasks. This is: number of other licensing tasks completed.

The actual FY 1998 and FY 1999 results, the FY 2000 goals and the actual FY 2000 results, through the end February 2000, for the four NRC Performance Plan output measures for licensing actions and other licensing tasks are shown in the table below. Note that the FY 2000 goal of 1500 licensing actions completed/year balances the rate of incoming licensing requests with the staff's current labor rate and reflects the goal that most efficiently focuses staff resources.

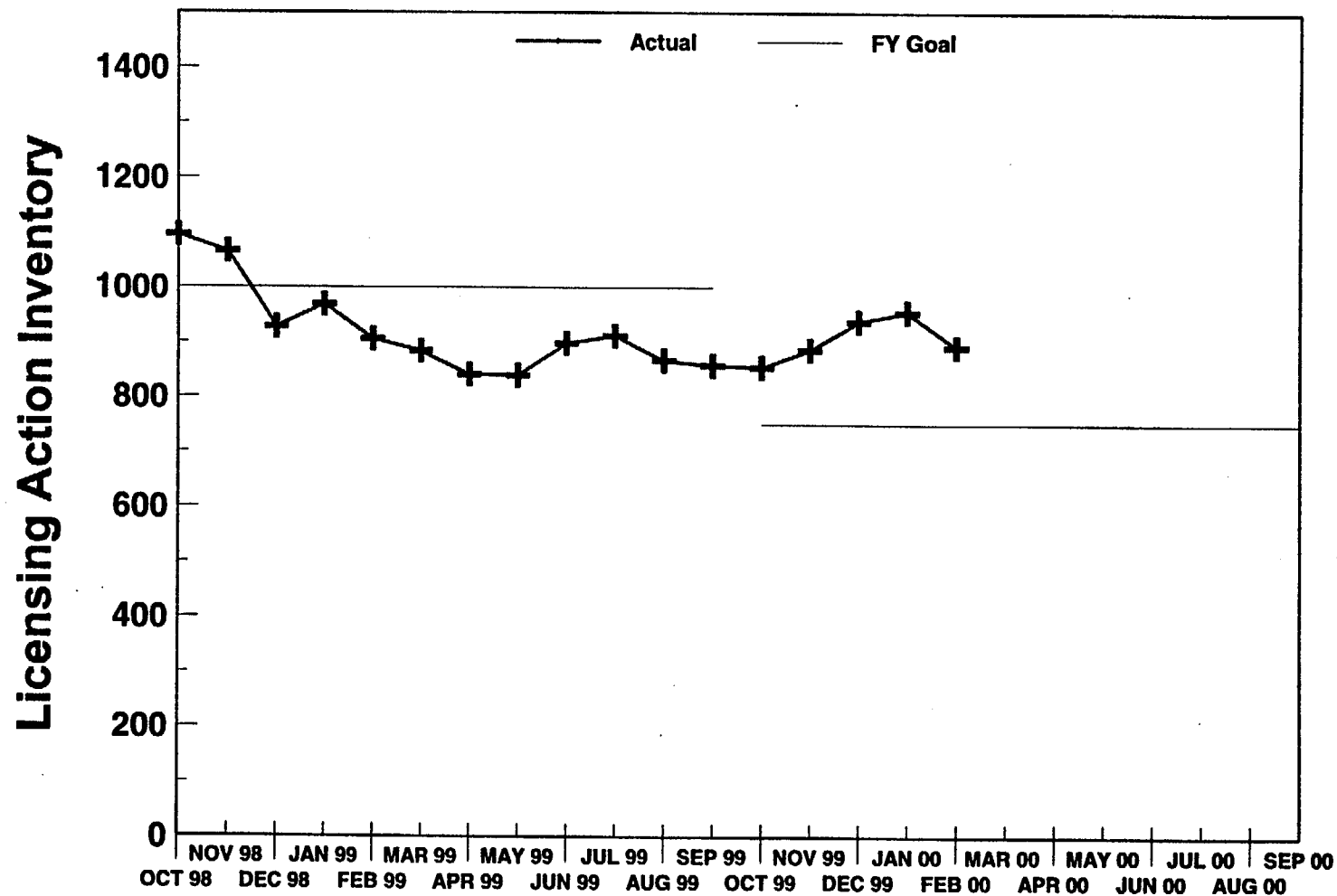
As of March 31, NRR had closed over 800 licensing actions; the exact figure will be provided in next month's report. In the first quarter of FY 2000, the staff had closed 325 licensing actions. The goal for the first quarter was 375 licensing actions to be completed. The staff missed the goal by 50 licensing actions. This prompted the NRR senior management to ensure appropriate corrective actions were undertaken. Much of these corrective actions centered about senior management taking a more involved approach to licensing and ensuring the staff understood NRR goals and overall licensing expectations. This was communicated in a variety of ways to the NRR staff. The results of the staff's efforts to date indicate that in the second quarter of FY 2000, 475 licensing actions were completed. The mid-year goal was 750 licensing actions to be completed. On whole, NRR is back on standard or slightly above in completing licensing actions. The expenditure of staff resources is also increasing and coming back into standard and the trend for the second quarter clearly shows an upward trend to bring the numerical goal and the FTE budget goal in line with annualized projections. More importantly, this illustrates that NRR's management process is working efficiently to detect problems early and take prompt, effective corrective action.

PERFORMANCE PLAN				
Output Measure	FY 1998 Actual	FY 1999 Actual	FY 2000 Goals	FY 2000 Actual (thru 02/29/2000)
Licensing actions completed/year	1425	1727	1500	621
Size of licensing actions inventory	1113	857	750	891
Age of licensing action inventory	65.6% ≤ 1 year; 86.0% ≤ 2 years; and 95.4% ≤ 3 years old	86.2% ≤ 1 year; 100% ≤ 2 years; and 100% ≤ 3 years old	95% ≤ 1 year and 100% ≤ 2 years old	88.8% ≤ 1 year; 99.1% ≤ 2 years; and 0.9% > 2 years old
Other licensing tasks completed/year	1006	939	800	668

The following charts demonstrate NRC's progress in meeting the four licensing action and other licensing task output measure goals.

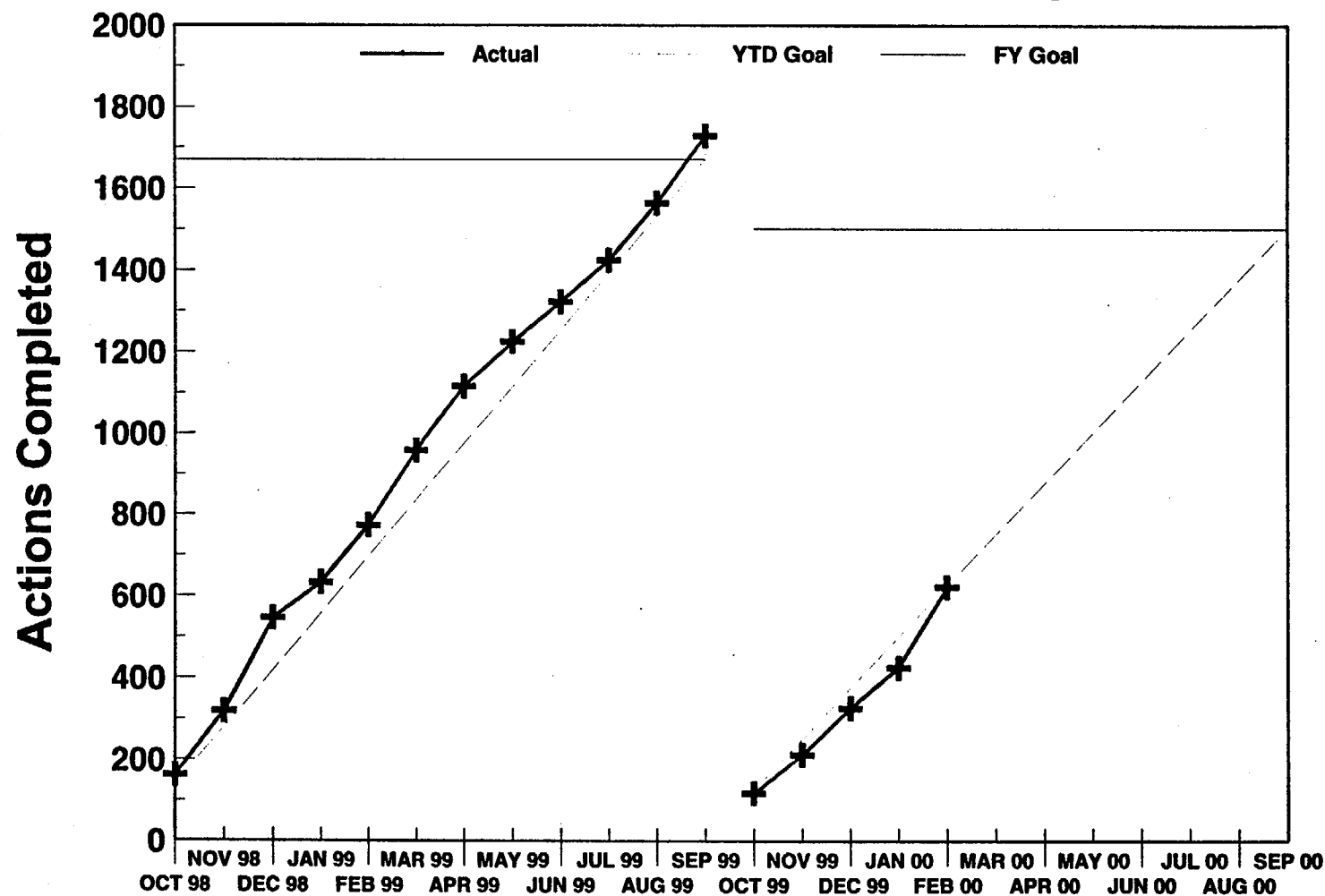
# Nuclear Reactor Safety - Reactor Licensing

## Performance Plan Target: Licensing Action Inventory



# Nuclear Reactor Safety - Reactor Licensing

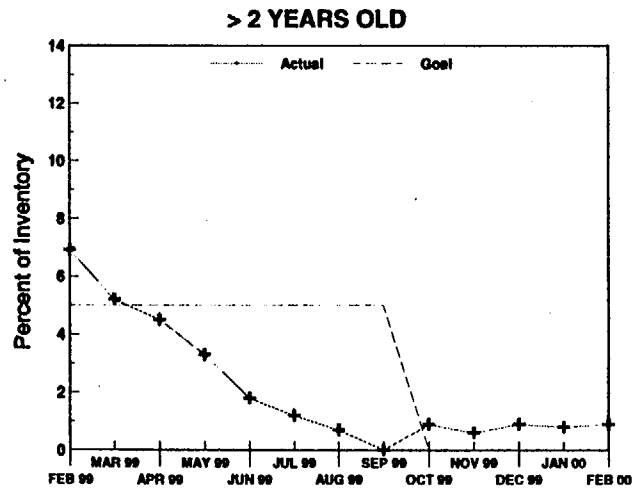
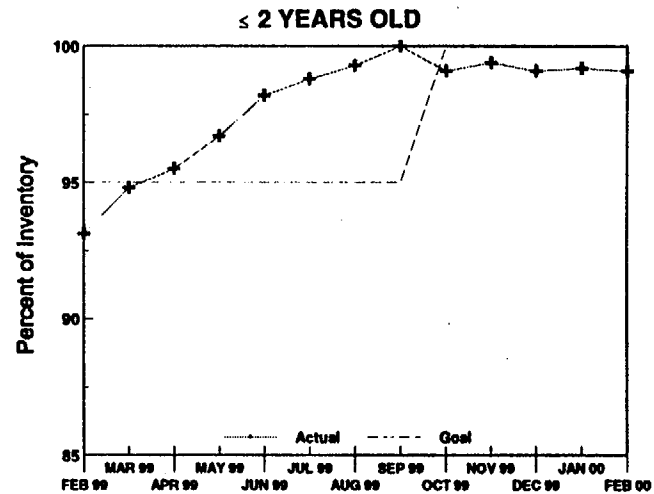
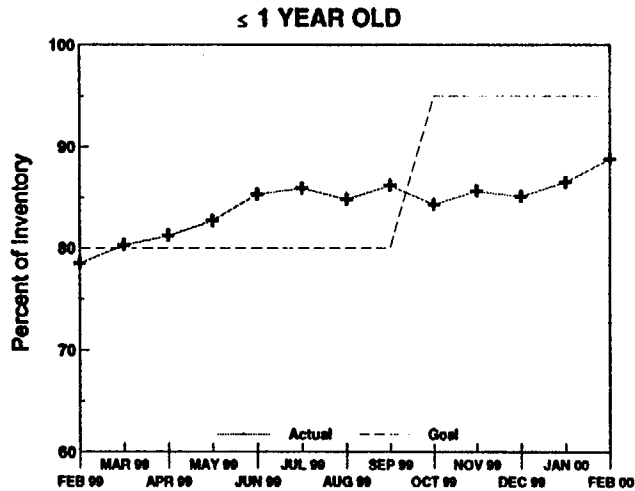
## Performance Plan Target: Completed Licensing Actions





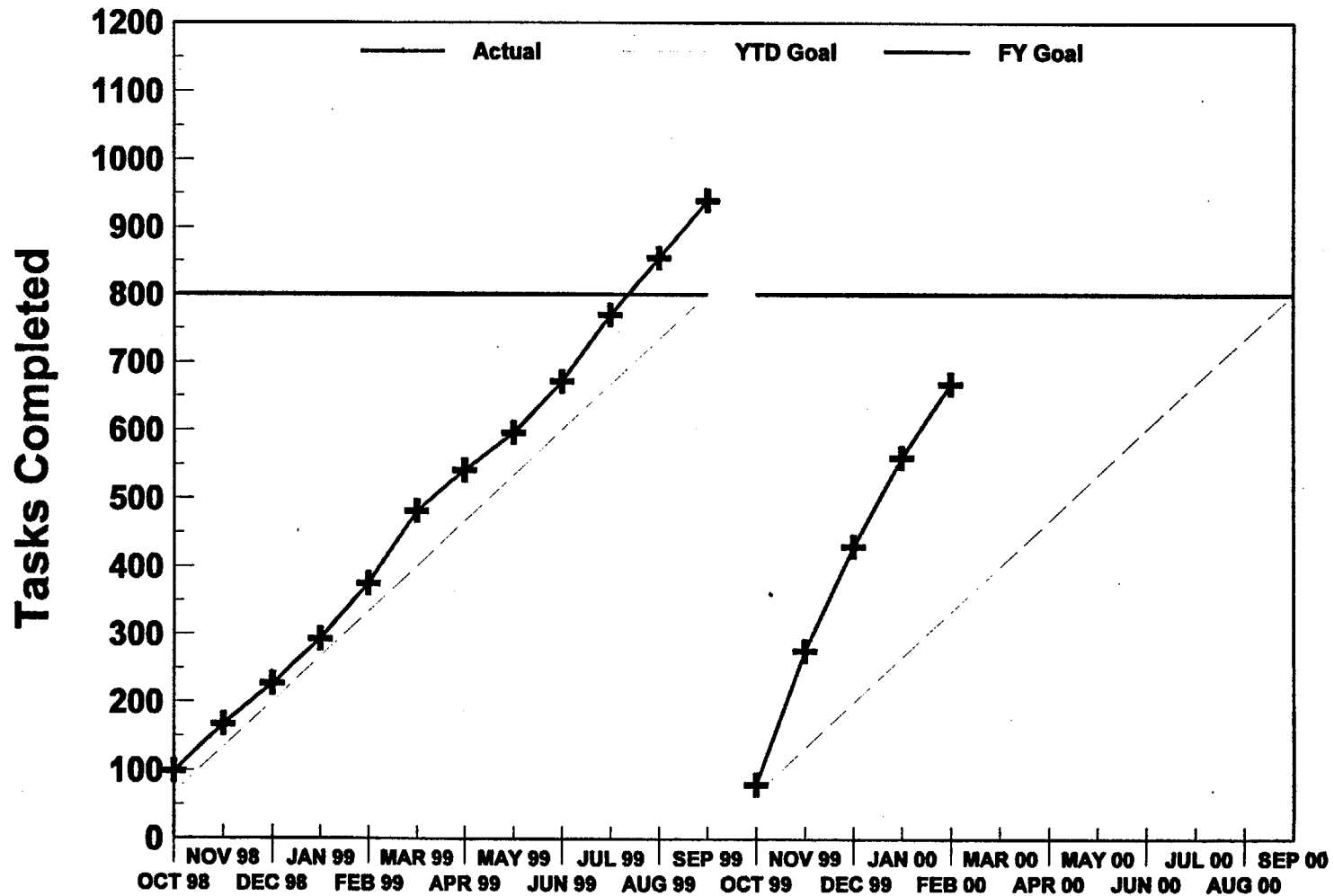
# Nuclear Reactor Safety - Reactor Licensing

## Performance Plan Target: Age of Licensing Action Inventory



# Nuclear Reactor Safety - Reactor Licensing

Performance Plan Target: Completed Other Licensing Tasks



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

### **Calvert Cliffs License Renewal Application**

All NRC activities associated with the review of the Calvert Cliffs license renewal application have been completed. As reported on the cover letter to the February report, on March 23, the Commission unanimously approved the extension of the operating licenses for both the Calvert Cliffs units.

### **Oconee License Renewal Application**

All activities associated with the review of the Oconee license renewal application are on schedule. The NRC staff had issued the final safety evaluation report (FSER) and the final supplemental environmental impact statement that found no safety concerns or environmental impacts from renewal that would prevent the NRC from renewing the Oconee licenses. The Advisory Committee on Reactor Safeguards (ACRS) completed its review of the Oconee license renewal application and the staff's FSER, and in a letter dated March 13 informed the Commission that the ACRS concurred in the staff's findings. A Commission briefing has been scheduled for May 2 to discuss the staff's review and recommendation to authorize the Director of NRR to make the appropriate findings and renew the operating licenses for the Oconee Nuclear Station, Units 1, 2, and 3 for an additional 20 years. The Commission decision on issuance of the renewed license is scheduled for July 2000, but may occur as early as mid-May.

### **Arkansas Nuclear One, Unit 1, Renewal Application**

On February 1, 2000, the NRC received an application for renewal of the Arkansas Nuclear One, Unit 1, operating license. The staff has completed its acceptance review and has issued a public notice of its acceptance of the application for docketing and an opportunity for hearing. Until it is determined whether a hearing will be conducted, a 30-month review schedule has been established with a final decision on issuance of the license scheduled for July 2002.

### **Hatch, Units 1 and 2, Renewal Application**

On March 1, 2000, the NRC received an application for renewal of the Hatch, 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.

### **License Renewal Implementation Guidance Development**

The NRC staff is continuing development of implementation guidance for the license renewal rule with input from interested stakeholders. A draft Generic Aging Lessons Learned (GALL) report was prepared and made publicly available. The report generically documents the basis for determining when existing programs are adequate and when existing programs should be augmented for license renewal. The staff issued a "template" for preparing the standard review plan based on a method of referencing the GALL report in a license renewal application. Additionally, sections of the draft standard review plan were issued for preliminary review and comment by interested stakeholders.

The staff is also revising the draft license renewal regulatory guide which provides guidance on the standard format and content of a license renewal application. Experience gained from the review of the Calvert Cliffs and Oconee renewal applications is being incorporated into the revision of both the regulatory guide and the standard review plan. The revised standard review plan, GALL report, and regulatory guide are scheduled to be issued in August 2000 to obtain public comments.

**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, Private Fuel Storage, Limited Liability Corporation submitted Revision 10 to its Safety Analysis Report to NRC staff. This revision responds to additional requests from the staff for information needed in its safety evaluation of items left open in the "Safety Evaluation Report of the Site-Related Aspects of the Private Fuel Storage Facility Independent Spent Fuel Storage Installation," which was issued in December 1999. Work also continued on the Draft Environmental Impact Statement which is scheduled to be published in May, 2000.

NRC staff has accepted the request by BNFL Fuel Solutions to stop the review of its TranStor dual-purpose (transportation and storage) cask system. The TranStor cask system was one of two dual-purpose cask systems being considered by Private Fuel Storage, Limited Liability Corporation for use at the proposed Private Fuel Storage Facility. NRC is nearing completion of the certification process for Holtec International's HI-STORM dual-purpose cask system, the other cask system chosen by Private Fuel Storage, Limited Liability Corporation. The cessation of the TranStor review will have no impact on the schedule for completion of NRC staff's review of the Private Fuel Storage, Limited Liability Corporation license application. Only one dual-purpose cask system is needed to be incorporated in the license application for the proposed Private Fuel Storage Facility for the staff to make its licensing recommendation to the Commission.

Litigation in the adjudicatory proceeding on the Private Fuel Storage, Limited Liability Corporation application continued during this reporting period. Written testimony on safety issues is due to be submitted in May 2000, and hearings on these issues will be held during the period of June 19-30, 2000. Hearings on environmental contentions will be held in July 2001, following publication of the Final Environmental Impact Statement.

## 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	Feb.2000	0	0	0	0	0
	FY 2000 YTD	0	0	0	0	0
	FY 99 Total	0	0	0	0	0
	FY 98 Total	0	0	0	0	0
Severity Level II	Feb.2000	1	1	0	0	2
	FY 2000 YTD	1	2	0	0	3
	FY 99 Total	5	0	2	0	7
	FY 98 Total	3	1	1	1	6
Severity Level III	Feb.2000	0	0	0	1	1
	FY 2000 YTD	1	0	2	3	6
	FY 99 Total	9	2	7	8	26
	FY 98 Total	46	11	15	19	91
Severity Level IV	Feb.2000	0	0	0	0	0
	FY 2000 YTD	0	1	0	2	3
	FY 99 Total	52	42	57	60	211
	FY 98 Total	383	271	392	261	1307
Non-Cited Severity Level IV	Feb.2000	22	16	18	10	66
	FY 2000 YTD	152	91	136	120	499
	FY 99 Total	343	267	334	305	1249
	FY 98 Total	372	240	307	214	1133

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

<b>Escalated Reactor Enforcement Actions Associated with the Revised Reactor Oversight Process</b>						
		Region I	Region II	Region III	Region IV	Total
NOVs related to White, Yellow or Red findings	Feb 2000 -Red	0	0	0	0	0
	-Yellow	0	0	0	0	0
	-White	1	0	0	0	1
	FY 2000	1	1	0	0	2

**Description of Significant Actions (Severity Level I, II, III, or Notices of Violation associated with White, Yellow or Red inspection findings) taken in February 2000.**

**Consolidated Edison Company of New York, Inc., Indian Point 2  
Supplement I (EA 99-319)**

On February 25, 2000, a Notice of Violation and Proposed Imposition of Civil Penalty of \$88,000 was issued for a Severity Level II problem involving: (1) failure to translate design basis requirements into procedures for the 480 Volt vital bus degraded voltage relays, which led to loss of offsite power to the vital busses; (2) failure to ensure that procedures used to calibrate the breaker trip units for the emergency diesel generators (EDGs) were adequate, which led to the inoperability of one EDG, and (3) failure to take corrective actions for a significant condition adverse to quality involving repetitive problems with the reactor protection system over-temperature/delta temperature (OTT) circuitry, which led to initiation of a reactor trip. The violations were identified during an NRC review of the circumstances associated with a reactor trip event that occurred on August 31, 1999. The reactor trip resulted from a spurious trip of one channel of the reactor protection system (RPS) OTT instrument, while maintenance was being performed on another channel of the OTT instrument. The event was complicated by the loss of offsite power to all four of the 480 Volt vital busses needed for operation of the safety systems at the facility, as well as the subsequent loss of one of the EDGs that act as a backup to the offsite power supply. The loss of both offsite power and the one EDG (due to an output breaker tripping open) resulted in the loss of power to one of the vital busses. Ultimately, this led to the depletion of one of the four safety-related batteries and loss of most of the control room annunciators for safety-related systems. Since Indian Point 2 had been the subject of escalated enforcement action within the last two years, NRC considered whether credit was warranted for Identification and Corrective Action. No credit was warranted for identification because the violations were identified through an event and prior opportunities existed to have identified many of the problems. Credit was warranted for corrective actions taken because once the violations were identified, the actions were considered prompt and comprehensive.

**Public Service Electric and Gas Company, Salem Nuclear Generating Station  
EA 2000-018**

On February 14, 2000, an inspection finding was assessed using the applicable Significance Determination Process to be White, (i.e., an issue with some increased importance to safety, which may require additional NRC inspections). This White finding involved the failure of the Unit 2, 4160 Volt switchgear room carbon dioxide fire suppression system to achieve the minimum fifty percent concentration when it was when originally installed and tested in February, 1979. This condition had not been corrected as of the date of the inspection in November 1999. The finding was determined be White based on fact that the one hour raceway fire barrier system in the 4160 Volt switchgear room was also degraded. The licensee did not contest the characterization of the risk significance of this finding. The failure of the carbon dioxide fire suppression system to meet the concentration requirements was a violation of the licensee's fire protection license condition. In accordance with the "Interim Enforcement Policy for Use During the NRC Power Reactor Oversight Process Pilot Plant Study", an escalated Notice of Violation was issued because violation was associated with a White finding.

**Entergy Operations, Inc. Grand Gulf Nuclear Station  
Supplement I (EA 99-305)**

On February 22, 2000, a Notice of Violation was issued for a Severity Level III problem based on (1) failure to comply with the technical specification for operating the EDG; (2) failure to establish adequate alarm response instructions; (3) failure to review a work package, and (4) failure to initiate condition reports for nonconformances. Specifically, the violations were related to the failure of the High Pressure Core Spray (HPCS) diesel generator, which was caused by the failure to resolve issues surrounding the correct oil level needed for the HPCS diesel generator bearing. In July 1998, the licensee recognized a conflict between the nameplate data and a vendor drawing for the amount of oil needed for the bearing. Without resolving this inconsistency, the licensee lowered the oil level in the HPCS diesel generator east end bearing to less than the minimum specified in the controlled vendor drawing on July 9, 1999. On September 9, 1999, the HPCS diesel generator bearing failed during the performance of the HPCS Diesel Generator 18 Month Functional Test. The most probable cause of the failure was inadequate lubrication of the bearing due to an insufficient supply of lubrication oil. The safety significance of these violations is that the HPCS diesel generator, if called upon, would not have been able to perform its intended safety function for approximately 74 days. Because the facility had not been the subject of escalated enforcement actions within the last two years, the NRC considered whether credit was warranted for Corrective Action in accordance with the Enforcement Policy. Based on the licensee's corrective actions, credit for Corrective Action factor was warranted. As a result, no civil penalty was proposed in this case.

**Tennessee Valley Authority (TVA)  
Supplement VII (EA 99-234)**

On February 7, 2000, a Notice of Violation and Proposed Imposition of Civil Penalty of \$110,000 was issued for a Severity Level II violation involving employment discrimination against a former corporate employee, for engaging in protected activities. Specifically, the violation involved employment discrimination in violation of the Commission's requirements in 10 CFR 50.7, "Employee Protection," in that adverse employment action was taken

by individuals the NRC considered to be mid-level TVA management officials which caused the non-selection of an employee to a competitive position in 1996, due, at least in part, to his engagement in protected activity. In 1993, the employee filed a discrimination complaint with the Department of Labor (DOL), in which he alleged that TVA discriminated against him, in part, for raising nuclear safety concerns related to his activities as Chemistry and Environmental Superintendent at the Sequoyah Nuclear Power Plant. The nature of the nuclear safety concerns included his identification of various chemistry related issues at the Sequoyah facility in the 1991 to 1993 time frame. After the 1993 DOL complaint was settled the employee was reinstated to a position in TVA. Subsequently, in 1996, the employee applied for one of two new positions which he was qualified for, but was not selected. The NRC concluded that the employee's engagement in the previous protected activities was a factor in his eventual non-selection to the position for which he applied. Because this violation was characterized at Severity Level II, the NRC considered whether credit was warranted for Identification and Corrective Action in accordance with the civil penalty assessment process described in the Enforcement Policy. No credit was determined to be warranted for Identification, because this violation was identified by the NRC. No credit was given for Corrective Action because the licensee denied the occurrence of a violation, and had not taken any specific corrective actions to address the root and contributing causes, nor taken actions to prevent recurrence.

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

The NRC staff is continuing its work to risk-inform 10 CFR 73.55, "Requirements for physical protection of licensed activities in nuclear power reactors against radiological sabotage," and associated power reactor security regulations. On March 9, 2000, the staff submitted a position paper for the Commission on the performance criteria that would be used to develop security plans, target sets, and scenarios for testing. These performance criteria would (1) be linked to plant operating conditions, (2) further risk-inform the process, and (3) incorporate engineering and operational aspects into the response to an adversary act." The staff is continuing to hold periodic (changed from weekly to bi-weekly) meetings with the stakeholders to achieve insights into this process.