



CHAIRMAN

UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

April 28, 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-fourth report, which covers the month of March 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 the restart of the Davis-Besse Nuclear Power Station; implementation of the new Security and Safeguards Inspection Program (SSIP) baseline inspections; and approval of a request to increase the generating capacity of the Kewaunee nuclear power plant, located near Green Bay, Wisconsin.

On March 31, I announced a number of senior management reassignments to improve the agency's focus on safety, security, and preparedness, and to position the agency for future change while continuing to protect public health and safety. The changes are intended to bring fresh perspectives on key issues and enhance cross-fertilization of management ideas as the agency moves forward.

With regard to Davis-Besse, the NRC staff continues to monitor closely the licensee's on-site activities. On Sunday, April 4, 2004, the plant achieved full power for the first time following its extended outage. Around-the-clock oversight, with participation from NRC resident inspectors and operating license examiners from all four Regional Offices, was conducted during the restart process. In the few days immediately following restart, the plant experienced some non-safety significant equipment problems. Based on resident inspector observations from the control room, the NRC staff concluded that the operators' responses were appropriate. On April 8, 2004, the first Oversight Panel Public Meetings following restart approval were held near the site.

As noted in previous reports, Louisiana Energy Services (LES) submitted to NRC, by letter dated December 12, 2003, its license application and Integrated Safety Analysis (ISA) for construction and operation of the National Enrichment Facility (NEF), a gas centrifuge uranium enrichment facility, in Lea County, New Mexico, near the city of Eunice. Staff has conducted a number of activities in support of this review, including an in-office review of the non-classified

portion of the LES ISA at its contractor's corporate office in Marlborough, Massachusetts; a site visit at the Urenco gas centrifuge uranium enrichment facility located in Almelo, the Netherlands, where staff reviewed classified portions of the LES ISA, toured operating facility systems, met with plant management, and discussed operating experience relevant to the proposed facility in the U.S.; and the initial quarterly management meeting with LES on March 25, 2004, at NRC headquarters to discuss progress on the review of the LES application for a gas centrifuge uranium enrichment plant.

Licensed operations at the Honeywell uranium conversion facility in Metropolis, Illinois, have been restarted after corrective actions were completed for an off-site release of uranium hexafluoride that occurred on December 22, 2003. On March 27, 2004, the NRC agreed to the restart of the first phase, ore preparation; on April 14, 2004, the NRC agreed to the restart of the second phase, uranium tetrafluoride production; and on April 17, 2004, the NRC agreed to the restart of the final phase, uranium hexafluoride production. The NRC continues enhanced inspection of current operations and conducted public meetings with Honeywell at the courthouse in Metropolis to discuss the status of corrective and improvement actions for safe restart and operation. These meetings were well-attended by members of the public and local officials. The NRC continues to keep the State of Illinois and the U.S. Environmental Protection Agency informed of progress made by the licensee.

On April 10, 2004, the NRC issued a report on the quality of certain technical information in three documents that the Department of Energy (DOE) is preparing to support its expected application for a license to build and operate a high-level radioactive waste repository at Yucca Mountain, Nevada. The NRC's report indicates that, if DOE continues to use their existing policies, procedures, methods, and practices at the same level of implementation and rigor, the license application may not contain information sufficient to support the technical positions in the application. This could result in the NRC issuing a large volume of requests for additional information in some areas, which could extend NRC staff's time for review and could prevent the NRC from making a decision regarding a construction authorization to DOE within the three years required by law (with a possible extension to four years). The NRC's report also indicates that DOE and its contractor had used several good practices and found the technical information was much improved over what was presented in the DOE's Total System Performance Assessment for Site Recommendation in 2001.

Recently, the Commission and the NRC staff also:

- renewed on April 23, 2004, the operating license of the Virgil C. Summer Nuclear Station, Unit 1, located in Fairfield County, South Carolina, for an additional 20 years. The plant is operated by South Carolina Electric & Gas Company (SCE&G).
- renewed on April 19, 2004, the operating license of Unit 2 of the nuclear power facility at the H.B. Robinson Steam Electric Plant, located in Darlington County, South Carolina, for an additional 20 years. The plant is operated by Carolina Power & Light Company (CP&L).
- published in the Federal Register on April 19, 2004 (69 FR 20953), a notice of availability of a draft document entitled, "Report on the Independent Verification of the Mitigating Systems Performance Index (MSPI) Results for the Pilot Plants," dated February 2004, for review and comment by external stakeholders. The MSPI was

developed as a potential replacement for the Safety System Unavailability (SSU) performance indicator, which is part of the NRC's revised reactor oversight process (ROP) that was instituted four years ago. The purpose of the MSPI is to "monitor the performance of selected systems based on their ability to perform risk-significant functions." Although the NRC staff recently announced that use of the MSPI in the ROP, as piloted, would not be pursued further, the Commission has directed the staff to continue its effort to evaluate the use of a risk-informed performance indicator (PI) to replace the SSU PI in a timely manner.

- held a public meeting on March 31, 2004, in the vicinity of the Vermont Yankee nuclear power plant to present information and respond to the public's questions about the NRC's review of the Vermont Yankee power uprate application. Several officials, groups, and individuals expressed a desire for an independent engineering assessment at Vermont Yankee prior to the completion of the power uprate review, as requested by the Vermont Public Service Board (PSB) in its letter of March 15, 2004, to the NRC. The staff is currently considering the PSB's request and is developing a formal response.
- signed a Memorandum of Understanding (MOU) with the Department of Energy (DOE) on March 24, 2004, for U.S. Enrichment Corporation Inc.'s gas centrifuge test and demonstration Lead Cascade facility. This facility is to be housed in an existing DOE Gas Centrifuge Enrichment Plant building at the Portsmouth Gaseous Diffusion Plant site in Piketon, Ohio. The MOU delineates each agency's roles and responsibilities concerning regulatory oversight during all Lead Cascade facility phases to avoid dual regulation and to ensure regulatory continuity.
- received three petitions to intervene in the Louisiana Energy Services uranium enrichment plant proceeding submitted by the State of New Mexico Environment Department on March 23, 2004; the Attorney General of New Mexico on April 5, 2004; and Nuclear Information and Resource Service and Public Citizen on April 6, 2004. On April 15, 2004, an Atomic Safety and Licensing Board was established in this proceeding to preside over the mandatory hearing pursuant to Section 193 of the Atomic Energy Act, and the Licensing Board issued an initial pre-hearing order.
- completed the technical review of the Louisiana Energy Services (LES) Quality Assurance Program Description (QAPD), Revision 0, for the National Enrichment Facility (NEF). The QAPD describes the LES quality assurance (QA) program for application of management measures for QA elements for items relied on for safety for the design, construction, operation, maintenance, modification, and decommissioning of the proposed NEF. The staff review addressed only the QA elements of management measures. Other commitments to management measures in the license application will be reviewed separately.

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

Sincerely,

/RA/

Nils J. Diaz

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 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

MARCH 2004



Enclosure

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¹Note: The period of performance covered by this report includes activities occurring between the first and last day of March 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 significant milestones completed during the month of March 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 March 24, 2004, the NRC staff hosted a Mitigating Systems Performance Index (MSPI) public meeting. The discussion focused on the NRC staff decision not to implement the MSPI as piloted. Earlier the same day, this decision was discussed during the Commission meeting on the status of the Office of Nuclear Reactor Regulation's programs and activities. Based on the Commission's guidance, the staff plans to interact further with all stakeholders on lessons learned from the MSPI pilot, with the goal of evaluating a suitable risk-informed Performance Indicator (PI) as a replacement for the Safety System Unavailability PI. After further discussion of these issues, the staff will document the results of this effort and will make appropriate recommendations on how to proceed.
- On March 25, 2004, the NRC staff hosted an ROP public meeting to discuss several issues related to various significance determination processes (SDPs), including minor SDP steam generator findings, comments provided by the industry on the maintenance rule SDP, and examples of SDP timeliness. Discussion also focused on the staff's March 16, 2004 response to the October 31, 2003 Nuclear Energy Institute (NEI) letter on why the PI for scrams with a loss of normal heat removal should be retained. A number of new or open PI frequently asked questions (FAQs) were discussed.

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.

The actual FY 2002 and FY 2003 results, the FY 2004 goals, and the actual FY 2004 results, as of March 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.

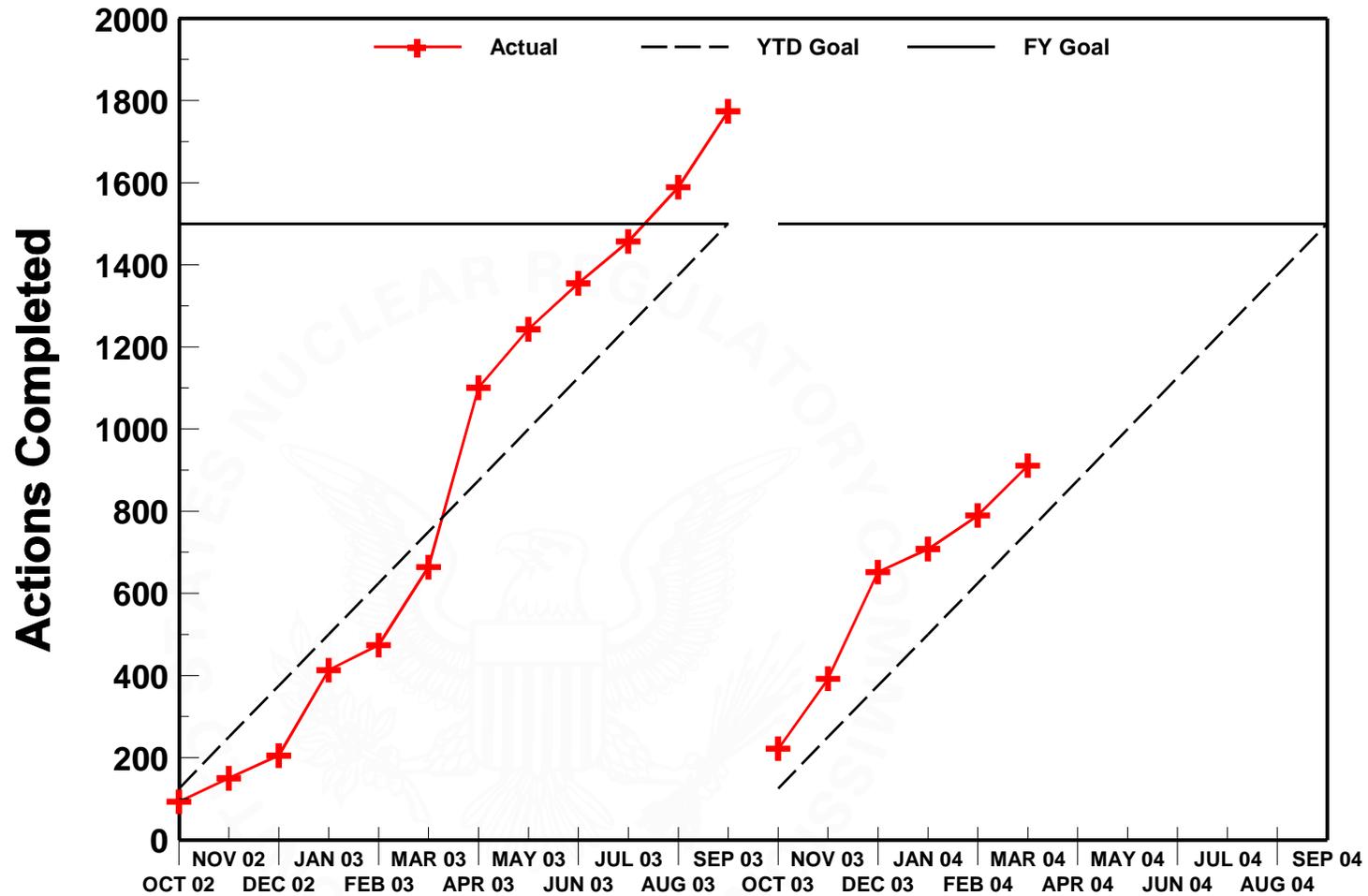
PERFORMANCE PLAN				
Output Measure	FY 2002 Actual	FY 2003 Actual	FY 2004 Goals	FY 2004 Actual (thru 03/31/2004)
Licensing actions completed/year	1560	1774	≥ 1500	911
Age of licensing action inventory	96.6% ≤ 1 year; and 100% ≤ 2 years	96% ≤ 1 year; and 100% ≤ 2 years	96% ≤ 1 year and 100% ≤ 2 years old	87.0% ≤ 1 year; 100% ≤ 2 years
Size of licensing action inventory	765	1296	≤ 1000	1059
Other licensing tasks completed/year	426	500	≥ 350	362

Several high priority activities, such as those related to power grid stability and changes to nuclear facility security plans, safeguards contingency plans, and guard force training and qualification plans, have resulted in reprogramming resources to accommodate the additional work. The reprogramming of resources from the completion of licensing actions has impacted the staff's ability to meet all of its Performance Plan goals. Through March 31, 2004, the size of the licensing action inventory did not meet the goal of ≤1000 actions. In addition, the length of time to complete licensing actions increased. Through March 31, 2004, 87% of the licensing actions were less than one year old, which did not meet the performance goal of 96%.

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

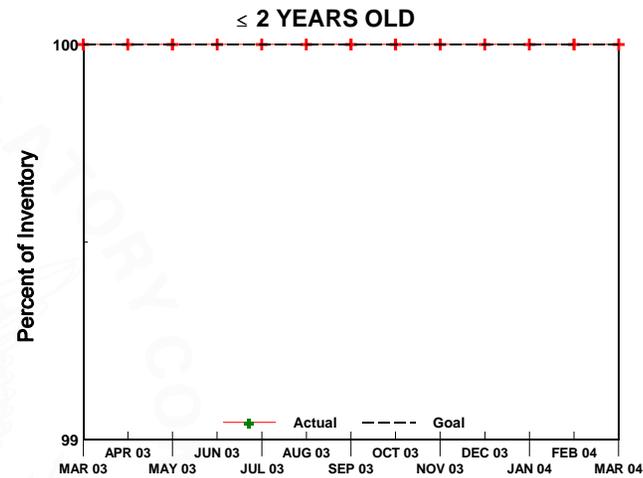
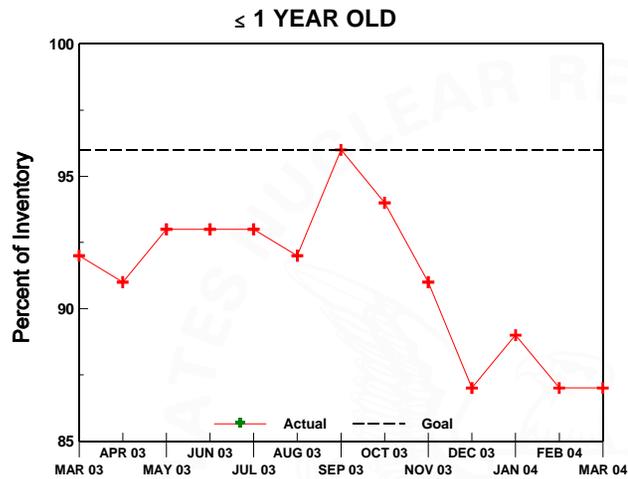
Nuclear Reactor Safety - Reactor Licensing

Performance Plan Target: Completed Licensing Actions



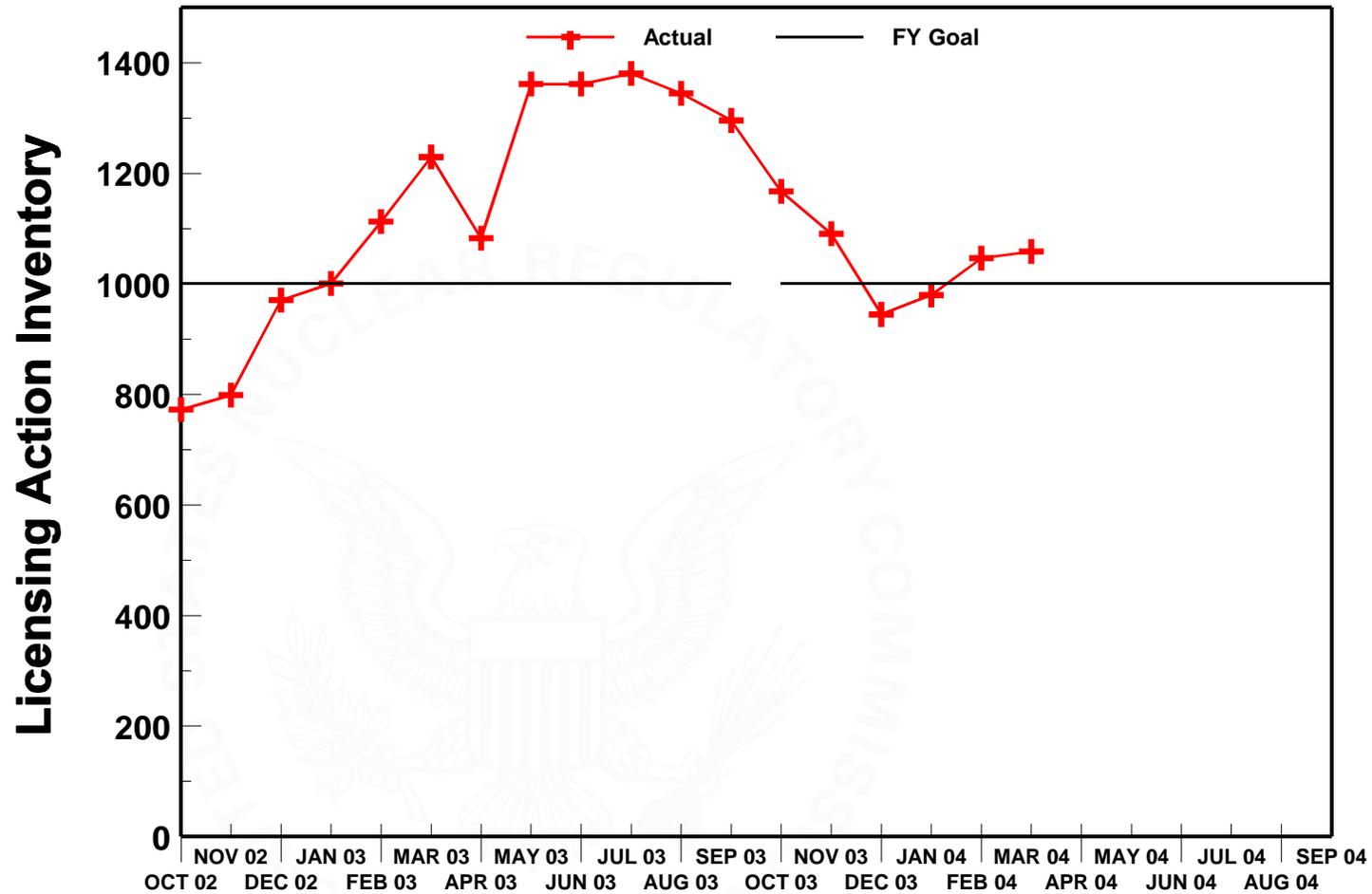
Nuclear Reactor Safety - Reactor Licensing

Performance Plan Target: Age of Licensing Action Inventory



Nuclear Reactor Safety - Reactor Licensing

Performance Plan: Size of Licensing Action Inventory



V Status of License Renewal Activities

Robinson Unit 2 License Renewal Application

The staff issued the final supplemental environmental impact statement (SEIS) in December 2003 and the safety evaluation report in January 2004. The staff is completing activities to support a decision on renewing the license in April 2004.

Ginna License Renewal Application

The staff issued the final SEIS in January 2004 and the safety evaluation report in March 2004. The staff is completing activities to support a decision on renewing the license in June 2004.

Summer License Renewal Application

The staff issued the safety evaluation report in January 2004 and the final SEIS in February 2004. The staff is completing activities to support a decision on renewing the license in June 2004.

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

The staff issued the draft SEIS for public comment for Quad Cities in November 2003 and for Dresden in December 2003. The staff is addressing the comments received and is preparing to issue the final SEIS's in July 2004 for both Dresden and Quad Cities. The staff issued the safety evaluation report identifying the remaining open items in February 2004, and the applicant's responses to the open items are due in April 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, which will identify 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, in December 2004.

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

On January 6, 2004, the NRC received an application for renewal of the Browns Ferry Units 1,2, and 3 operating licenses. In March 2004, the staff completed its acceptance review and found the application acceptable for docketing and review. The NRC determined that an additional 6 months beyond the standard 30 months (22 months without a hearing) review

schedule is necessary due to the complexity of the application. The 36 month schedule, agreed to by the applicant, was developed to accommodate the additional reviews that will be needed for evaluation of the Unit 1 extended shutdown and lay up conditions, coordination of the Unit 1 restart activities, and evaluation of the effects of the extended power uprate evaluations for all three units on the renewal.

Millstone Units 2 and 3 License Renewal Application

On January 22, 2004, the NRC received an application for renewal of the Millstone Units 2 and 3 operating licenses. In March 2004, the staff completed its acceptance review and found the application acceptable for docketing and review. 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 renewed licenses scheduled for July 2006.

Point Beach Units 1 and 2 License Renewal Application

On February 26, 2004, the NRC received an application for renewal of the Point Beach Units 1 and 2 operating licenses. 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.

During this reporting period, PFS provided the NRC staff the additional information on the consequence analysis that the staff had requested. The staff expects to complete its review of the PFS consequence analysis and to submit its report to the Atomic Safety and Licensing Board (ASLB) and parties in April 2004.

In addition, during March, PFS and the State of Utah signed an agreement to settle a late-filed contention regarding the design of spent fuel storage casks. On March 26, 2004, the parties submitted a motion to the ASLB requesting that the contention be dismissed. Also on March 26, the parties submitted a proposed hearing schedule to the ASLB for litigation of the aircraft crash consequence issue. Under the proposed schedule, depositions would be held in May 2004, and hearings would be held in July-August 2004, with a final ASLB decision to be issued later this year.

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 and the State of Utah's petition 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	Mar 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	Mar 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	1	0	0	0	1
Severity Level III	Mar 2004	1	0	1	0	2
	FY 04 YTD	1	0	2	0	3
	FY 03 Total	2	0	4	0	6
	FY 02 Total	2	0	0	0	2
Severity Level IV	Mar 2004	0	0	2	0	2
	FY 04 YTD	1	0	2	0	3
	FY 03 Total	1	0	2	1	4
	FY 02 Total	0	0	2	0	2
Non-Cited Severity Level IV or Green	Mar 2004	4	4	36	8	52
	FY 04 YTD	124**	90	155	150	519
	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 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.

**This number was corrected in November 2003 because it was thought to be missing report data for September 2003. However, it was determined during a recent audit that the data was entered in the system with incorrect dates, the reports were completed in November as opposed to September. This corrects the FY2003 total and moves nine violations to FY2004.

Escalated Reactor Enforcement Actions Associated with the Reactor Oversight Process						
		Region I	Region II	Region III	Region IV	Total
Notices of Violation Related to White, Yellow or Red Findings	3/04 Red	0	0	0	0	0
	3/04 Yellow	0	0	0	0	0
	3/04 White	1	0	3	0	4
	FY 04 YTD	2	1	7	2	12
	FY 03 Total	6	1	7	1	15
	FY 02 Total	5	4	6	8	23

Description of Significant Actions taken in March 2004

Rochester Gas and Electric Corporation (Ginna) EA-04-003

On March 30, 2004, a Notice of Violation was issued for a Severity Level III violation involving the willful failure to follow procedures by a manager when he manipulated two valves during a plant cooldown without authorization, as required by procedure.

Nuclear Management Company, LLC (Point Beach) EA-03-181

On March 17, 2004, a Notice of Violation and Proposed Imposition of Civil Penalty in the amount of \$60,000 was issued for a Severity Level III violation involving changes made to the Emergency Action Level scheme, which reduced the effectiveness of the Emergency Plan, without requesting and receiving prior NRC approval.

AmerGen Energy Company (Oyster Creek) EA-04-033

On March 15, 2004, a Notice of Violation was issued for a violation associated with a White Significance Determination Process (SDP) finding involving a power cable insulation breakdown that resulted in a loss of the 4kV emergency bus and forced a plant shutdown. The violation cited the licensee's failure to identify and take prompt and appropriate corrective actions for a significant condition adverse to quality involving power cables.

American Electric Power Company (D.C. Cook 1 & 2) EA-04-006

On March 12, 2004, a Notice of Violation was issued for a violation associated with a White SDP finding involving the failure to prepare properly a package of radioactive material for shipment. The violation cited the licensee's failure to prepare the radioactive material package for shipment so that the radiation level did not exceed 200 millirem per hour at any point on the external surface of the package.

FirstEnergy Nuclear Operating Company (Perry 1) EA-04-020

On March 12, 2004, a Notice of Violation was issued for a violation associated with a White SDP finding involving the air binding of the common low pressure core spray and residual heat removal (RHR) 'A' water leg pump following a loss of off-site power event. The violation cited the failure to establish adequate written procedures to periodically vent the highest point on the discharge of the common low pressure core spray and RHR 'A' water leg pump.

FirstEnergy Nuclear Operating Company (Davis-Besse) EA-03-214

On March 8, 2004, an immediately effective Confirmatory Order was issued to confirm certain commitments, as set forth in the Order. The Order requires annual independent assessments over a five year period in the areas of operations, engineering, corrective actions, and safety culture. It also requires inspection of key reactor coolant system pressure boundary components during a mid-cycle outage to ensure effective assessment and sustained safe performance. The Order was issued in conjunction with the NRC's decision to approve the restart of the facility.

FirstEnergy Nuclear Operating Company (Davis-Besse) EA-03-172

On March 5, 2004, a Notice of Violation was issued for a violation associated with a White SDP finding involving the potential inability of the high pressure injection (HPI) pumps to perform their safety function under certain accident scenarios due to potential pump degradation. The violation cited the licensee's failure to implement adequately design control measures for verifying the adequacy of the design of the HPI pumps to mitigate all postulated accidents.

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 and in time to implement the Orders by the October 29, 2004 deadline.

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 have been completed at fifteen plants. The staff will present a paper to the Commission shortly 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 have 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 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 12,537 megawatts-thermal (4179 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. On March 17, 2004, the NRC staff received an application for a 5.2 percent power uprate at the Seabrook plant in New Hampshire. This

proposed power uprate would increase the generating capacity of the plant by 176 megawatts-thermal, or about 59 megawatts-electric.

The Vermont State Senate passed a resolution in March 2004 requesting that the NRC condition approval of any power uprate at Vermont Yankee upon performance of an independent engineering assessment. The NRC also received a letter from the Vermont Public Service Board (PSB) on March 15, 2004, requesting that NRC perform an independent engineering assessment at Vermont Yankee to support the on-going NRC review of the Vermont Yankee application for extended power uprate. The NRC's consideration of these requests is in progress. On March 29, 2004, in response to a February 27, 2004 letter from Senators Jeffords and Leahy, the NRC explained why a Maine Yankee-type ISA inspection is not applicable to the power uprate application review for Vermont Yankee. The NRC also informed the Senators that it had received the Vermont PSB letter. This created some confusion regarding whether statements in the letter to the Senators constituted the staff's response to the Board. To clarify, the NRC letter to the Senators did not contain its response to the Vermont PSB. The NRC will be responding directly to the Vermont PSB in the near future.

On March 31, 2004, the NRC held a public meeting in Vernon, Vermont, near the Vermont Yankee site, to discuss the status of the agency's review of Entergy Nuclear's request for a power uprate at Vermont Yankee. Over 500 people attended this meeting, including several local and state public officials from Vermont, Massachusetts, and New Hampshire and representatives of Senators Leahy and Jeffords. Many people at this meeting voiced concerns about the power uprate process and expressed their desire for an independent engineering inspection at the Vermont Yankee facility to support the power uprate.

In our previous reports, the NRC noted that cracking has been found in the steam dryers at the Quad Cities and Dresden Nuclear Power Stations. The steam dryer is located in the upper region of the reactor vessel and functions to remove moisture from the steam before the steam is delivered to the turbine. The steam dryer does not perform an accident-mitigating role or safety function, but it is required to maintain its structural integrity. On February 24, 2004, Quad Cities Unit 2 was shut down for a scheduled refueling outage and to perform inspections on the steam dryer. The inspections identified cracking on areas of the steam dryer that had been previously modified to address implementation of the extended power uprate and previous problems identified with the steam dryer. Exelon Generation Company, the licensee for Quad Cities and Dresden, has developed a plan that will be implemented to attempt to identify the mechanism that has been causing unacceptable steam dryer loads and steam dryer cracking. In addition to the steam dryer cracking, flow-induced vibration damage has been identified on components and supports for the main steam and feedwater lines at Quad Cities and Dresden. In March 2004, the NRC had several conference calls with Exelon while continuing to evaluate the steam dryer cracking issues and damage to other plant components. The NRC is considering agency actions to address specific issues at Quad Cities and Dresden while evaluating the generic implications to other plants. The NRC also remains actively engaged with industry regarding industry's plans for addressing these issues generically. The NRC staff held another meeting with the Boiling Water Reactor Owners Group (BWROG) and General Electric Nuclear Engineering (GENE) on March 4, 2004, to discuss industry's proposed actions related to resolution of steam dryer integrity and other EPU concerns.

As reported in last month's report, the NRC has been monitoring the unexpected, small differences in power level indications that have been observed at the Braidwood and Byron

Stations while using the Westinghouse/AMAG "CROSSFLOW" ultrasonic feedwater flow measurement system. An allegation task group was established to perform an independent evaluation of the accuracy of the Westinghouse/AMAG (CROSSFLOW) ultrasonic feedwater flowmeter. The task group met with Westinghouse/AMAG on March 12 and March 26, 2004. The results of the task group's evaluation of the allegation will be documented in a report. The report will include the task group's overall conclusion on the accuracy of the AMAG flowmeter and a generic recommendation on the need for further regulatory action.

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 5296 megawatts-thermal (1766 megawatts-electric).

X Status of Davis-Besse Nuclear Power Station

The Region III Regional Administrator announced on March 8, 2004, that the NRC's restriction on the restart of the plant was removed. This decision was described in a letter to FirstEnergy Nuclear Operating Company (FENOC), dated March 8, 2004. The letter addressed Confirmatory Action Letter closure, Restart Checklist closure, coordination of the restart decision with other Federal agencies, issuance of a Confirmatory Order, and continuation of enhanced NRC regulatory oversight of Davis-Besse activities after restart. In addition, an inspection schedule letter was issued on March 8, 2004, describing NRC's planned inspections. These include a restart special inspection to observe around-the-clock transition to Modes 2 and 1 and subsequent ascension to full power, special inspections to assess FENOC implementation of commitments for continued performance improvement during Operating Cycle 14, compliance with the Confirmatory Order, and enhanced inspections to gain perspective in areas monitored by NRC Performance Indicators (PIs) where the Davis-Besse Oversight Panel has determined that the PIs do not afford sufficient insight into plant performance because of the extended shutdown.

The plant entered Mode 1 (Power Operations) on March 14, 2004. On March 17, 2004, the plant shutdown to Mode 4 (Hot Shutdown) to repair a feedwater system isolation valve when it was discovered that the valve stem had separated from the disc inside the valve. Following repairs to the valve and other emergent work, the plant re-entered Mode 1 on March 26, 2004. The plant synchronized to the grid on March 27, 2004. At the end of March 2004, the plant was at 80 percent reactor power with power ascension towards 100 percent reactor power in progress.

The NRC issued five inspection reports in March 2004. The NRC issued Inspection Report 50-346/04-05 documenting a Final Significance Determination for a White Finding and Notice of Violation concerning a design deficiency associated with the high pressure injection pumps. Inspection Report 50-346/04-04 was issued documenting an NRC special inspection for a restart readiness assessment team follow-up inspection. Inspection Report 50-346/04-03 was issued documenting an NRC special inspection for a management and human performance corrective action effectiveness inspection. Inspection Report 50-346/04-02 was issued documenting the results of a routine resident integrated inspection. Inspection Report

50-346/03-10 was issued documenting an NRC special inspection to assess the corrective action program implementation. All of the Davis-Besse inspection reports associated with the reactor vessel head degradation event can be viewed on the NRC's Davis-Besse web pages.

The NRC's Oversight Panel anticipates continuing coordination of enhanced inspection and regulatory activities of Davis-Besse during the next two to four quarters until the agency determines that the plant's performance warrants resumption of the NRC's normal reactor oversight program.

Detailed information on NRC activities associated with Davis-Besse can be found at:
<http://www.nrc.gov/reactors/operating/ops-experience/vessel-head-degradation.html>.

