



**UNITED STATES
NUCLEAR REGULATORY COMMISSION**

REGION II
SAM NUNN ATLANTA FEDERAL CENTER
61 FORSYTH STREET, SW, SUITE 23T85
ATLANTA, GEORGIA 30303-8931

December 22, 2005

LICENSEE: Tennessee Valley Authority

FACILITY: Browns Ferry Unit 1

SUBJECT: MEETING SUMMARY - INITIAL INTERNAL MEETING OF THE BROWNS
FERRY UNIT 1 RESTART PANEL - DOCKET NO. 50-259

On November 9, 2005, the Nuclear Regulatory Commission (NRC) held the initial meeting of the NRC Browns Ferry 1 (BF1) Restart Oversight Panel. The meeting was conducted internally via video conference between the NRC Region II and Headquarters offices. The panel was established in accordance with NRC Inspection Manual Chapter (IMC), IMC 2509, "Browns Ferry Unit 1 Restart Project Inspection Program." The purpose of IMC 2509 is to provide the policies and requirements for the restart inspection program, to establish a BF1 Restart Oversight Panel, and to document the major regulatory and licensee actions associated with the restart. In addition, the IMC provides guidance for assessing the licensee's readiness for restart and the return of the unit to the Reactor Oversight Process (ROP). The Restart Panel was established via a charter issued on October 13, 2005.

The purpose of the first panel meeting was to discuss the BF1 restart project status, transition from current regional oversight, and the role and activities of the oversight panel. Specific responsibilities for the panel, documented in the Restart Panel Charter, were assigned to members. Other discussion topics during this internal NRC meeting included: plans for the next public meeting with TVA; plans for panel meeting minutes and summaries; recent NRC inspection activities and inspection plans for calendar year (CY) 2006; review of Restart Item Checklist progress; key licensing issues; and recent challenges important to NRC oversight and inspections.

The panel members specifically discussed the need for promptly initiating public meetings of the Restart Oversight Panel by a formal public meeting with TVA. The panel agreed to schedule a public meeting with TVA at the BF1 site for December, 2005. The panel also discussed coordination with the NRC's ongoing License Renewal (LR) effort for BF1, the requisite level of NRC oversight to be provided for the significant BF1 system restorations scheduled throughout CY2006, and some specific items from the Restart Item Checklist that have been fully inspected, but may require licensing action for final closure. It was agreed upon that these would be reflected on an updated Restart Item Checklist which would be publically released again in conjunction with the planned panel public meeting.

Enclosure 1 contains a list of the Panel Members participating in the meeting and other NRC attendees. Enclosure 2 contains a copy of the charter establishing the Browns Ferry Unit 1 Restart Oversight Panel.

TVA

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These periodic meetings of the BF1 Panel will continue routinely throughout the recovery process. Documents associated with the NRC oversight of the BF1 Recovery can be found at on the NRC's website at <http://www.nrc.gov/NRR/OVERSIGHT/ASSESS/bf1-recovery.html> .

Sincerely,

/RA/

Joseph W. Shea, Deputy Director
Division of Reactor Projects, Region II

Docket No.: 50-259
License No.: DPR-33

Enclosures: 1. List of Attendees
 2. Restart Panel Charter - Browns Ferry Unit 1 Recovery

cc w/encls: (See page 3)

TVA

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Distribution w/encls:

B. Boger, NRR
C. Hailey, NRR
E. Hackett, NRR
M. Marshal, NRR
M. Chernoff, NRR
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H. Christensen, DRS
M. Lesser, DRS
C. Casto, DRP
S. Cahill, DRP
S. Shaeffer, DRP
W. Bearden, DRP
R. Monk, RII
E. Brown, NRR
B. Wetzel, OEDO
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ADAMS: : Yes ACCESSION NUMBER: _____

OFFICE	DRP:RII	DRS:RII	DRP:RII	NRR			
SIGNATURE	SMS	SMS for	SJC	MM for per email			
NAME	SShaeffer	MLesser	SCahill	EHackett			
DATE	12/21/2005	12/21/2005	12/22/2005	12/22/2005			
E-MAIL COPY?	YES NO	YES NO	YES NO	YES NO	YES NO	YES NO	YES NO

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List of Attendees

NRC Browns Ferry Unit 1 Restart Oversight Panel Meeting (11/09/05)

Nuclear Regulatory Commission Panel Members

Region II

J. Shea, Deputy Director, Division of Reactor Projects (DRP) - *Chairman*
S. Cahill, Chief, Branch 6, DRP - *Member*
M. Lesser, Chief, Engineering Branch 2, Division of Reactor Safety (DRS) - *Member*
W. Bearden, Senior Resident Inspector, Branch 6, DRP - *Member* (per telecon)
S. Shaeffer, Senior Project Engineer, Branch 6, DRP - *Member*

Absent - R. Monk, Browns Ferry Resident Inspector, Branch 6, DRP - *ex officio member*

Headquarters

E. Hackett, Deputy Director, Division of Operating Reactor Licensing (DORL), NRR - *Vice Chairman*
M. Chernoff, Browns Ferry Unit 1 Project Manager, DORL, NRR - *Member*

Absent - M. Marshall, Branch Chief, DORL, NRR - *Member*

Other Attendees

R. Subaratnam, License Renewal Project Manager, NRR
C. Julian, Lead Inspector for BF License Renewal activities, RII
M. Thomas, Senior Reactor Inspector, DRS, RII



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ATLANTA, GEORGIA 30303-8931

October 13, 2005

MEMORANDUM TO: Multiple Addressees

FROM: William D. Travers, Regional Administrator */RA/*

SUBJECT: BROWNS FERRY UNIT 1 RESTART OVERSIGHT PANEL AND CHARTER

The purpose of this memorandum is to establish the Browns Ferry Unit 1 (BF1) Restart Oversight Panel. Joseph Shea, Deputy Director, Division of Reactor Projects (DRP) is hereby appointed as the Chairman and Edwin Hackett, Director, Projects Directorate 2, Nuclear Reactor Regulation (NRR), as Vice Chairman. Panel members will be responsible for providing the necessary oversight for the recovery of Browns Ferry Unit 1.

This panel is being established in accordance with the guidance provided in NRC Inspection Manual Chapter (IMC) 2509, "Browns Ferry Unit 1 Restart Project Inspection Program," which NRC issued on September 8, 2003. The purpose of IMC 2509 is to: (1) provide the policies and requirements for the restart inspection program, (2) establish a BF1 Restart Oversight Panel, and (3) document the major regulatory and licensee actions planned for the restart. In addition, the IMC provides guidance for assessing the licensee's readiness for restart and for the eventual return of the unit to the Reactor Oversight Process (ROP).

The BF1 Restart Oversight Panel shall:

1. Understand the basis for the Unit 1 extended shutdown and provide assurance that the key issues for the shutdown have been adequately resolved in accordance with IMC 2509.
2. Maintain and periodically issue the BF1 Restart Issues List.
3. Ensure adequate inspections are conducted for the licensee's Corrective Action Program, Tennessee Valley Authority Special Programs, and other improvement processes developed to address the original shutdown of the unit.
4. Maintain an ongoing overview of the licensee's recovery process and conduct periodic meetings among members of the panel to assess NRC ongoing inspections and resolution of technical and regulatory issues that may arise.
5. Conduct periodic meetings with the licensee to discuss progress of the recovery effort and identify ways to enhance NRC oversight of the project.

Enclosure 2

6. Provide oversight for the established BF1 Recovery Communication Plan to ensure key stakeholders are informed of the restart status.
7. Provide NRC oversight of the licensee's Restart Test Program such that appropriate verifications are made by the NRC staff to verify the adequacy of the program.
8. Monitor NRC activities associated with the Browns Ferry License Renewal and Extended Power Uprate Projects to ensure these activities are adequately accounted for within the NRC restart reviews for Unit 1.
9. Monitor the transition of BF1 from recovery of the unit utilizing traditional enforcement to the ROP as described in IMC 2509.
10. Based on the satisfactory completion of the licensee's recovery process for Unit 1, provide a recommendation to the Regional Administrator, Region II, and the Director, NRR, for restart decisions.

Docket No. 50-259
License No. DPR-33

Attachments: 1. Browns Ferry Unit 1 Restart Oversight Panel Charter
2. Browns Ferry Unit 1 Restart Issues List

MEMORANDUM TO THOSE ON THE ATTACHED LIST

SUBJECT: BROWNS FERRY UNIT 1 RESTART OVERSIGHT PANEL AND CHARTER

Joseph W. Shea, Deputy Director, Division of Reactor Projects (DRP) - Chairman
Edwin M. Hackett, Director, Projects Directorate 2, Nuclear Reactor Regulation (NRR) - Vice
Chairman

Michael L. Marshall, Projects Section Chief, NRR - Member
Margaret H. Chernoff, Projects Manager, Browns Ferry Unit 1, NRR - Member
Stephen J. Cahill, Chief, Reactor Projects Branch 6, DRP - Member
Mark S. Lesser, Chief, Engineering Branch 3, Division of Reactor Safety - Member
William B. Bearden, Senior Resident Inspector, Reactor Projects Branch 6, DRP - Member
Scott M. Shaeffer, Senior Project Engineer, Reactor Projects Branch 6, DRP - Member

Robert L. Monk, Resident Inspector, Reactor Projects, Branch 6, DRP - ex Officio Member
(for Unit 1 operational continuity)

☐ SISP REVIEW COMPLETE: Initials: _____
 ☐ SISP REVIEW PENDING*: Initials: _____
 *Non-Public until the review is complete
☐ PUBLICLY AVAILABLE
 ☐ NON-PUBLICLY AVAILABLE
 ☐ SENSITIVE
 ☐ NON-SENSITIVE
 ADAMS: ☐ Yes
 ACCESSION NUMBER: _____

OFFICE	DRP:RII	NRR	NRR	DRS:RII	NRR	DRP:RII	DRP:RII
SIGNATURE	SMS	SMS for	SMS for	MSL1	SMS for	SJc2	CAC
NAME	SShaeffer:aws	MChernoff	MMarshall	MLesser	EHackett	SCahill	CCasto
DATE	09/19/2005	09/19/2005	09/19/2005	09/20/2005	09/19/2005	10/11/2005	09/22/2005
E-MAIL COPY?	YES NO	YES NO	YES NO	YES NO	YES NO	YES NO	YES NO
OFFICE	DRP:RII	ORA					
SIGNATURE	JWS	LRP					
NAME	JShea	LPlisco					
DATE	09/22/2005	09/22/2005					
E-MAIL COPY?	YES NO	YES NO	YES NO	YES NO	YES NO	YES NO	YES NO

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BROWNS FERRY UNIT 1

Attachment 1

RESTART OVERSIGHT PANEL CHARTER

Objective

This document establishes and defines the responsibilities for the Browns Ferry Unit 1 Restart Oversight Panel and provides an overview of the planned regulatory actions associated with the recovery and restart of Browns Ferry Nuclear Plant, Unit 1 (BF1).

The BF1 Panel will determine whether the required corrective actions and performance improvement changes have been implemented successfully by TVA such that Unit 1 meets the relevant regulatory requirements and can be safely restarted and operated. The BF1 Panel will make a recommendation to the Regional Administrator, Region II, regarding the restart, at the appropriate time per the criteria discussed in NRC Inspection Manual Chapter (IMC) 2509.

Background

The Tennessee Valley Authority (TVA) is the NRC-regulated licensee for the Browns Ferry Nuclear Power Plant located near Decatur, Alabama. The Browns Ferry site has three boiling water reactors of the GE BWR-4 design with Mark-1 Containments. All three Browns Ferry Units were voluntarily shutdown by the TVA in March 1985 to address performance and management issues. The performance issues included successive NRC Systematic Assessment of Licensee Performance (SALP) periods with Category 3 performance in the same functional areas; multiple escalated enforcement actions; and numerous significant events at TVA facilities. The general areas of concern included programmatic and management deficiencies that contributed to poor direction and control of nuclear activities; plant-specific deficiencies that contributed to weaknesses in several SALP functional areas; and a lack of confidence in TVA management expressed to NRC by TVA employees regarding construction adequacy at Watts Bar. In a letter dated September 17, 1985, the NRC requested additional information pursuant to 10 CFR 50.54(f) related to these areas of concern.

Following the shutdowns, TVA specified corrective actions which would be completed prior to restart. All three units retained their operating licenses during their respective long-term shutdown.

The restart efforts for Units 2 and 3 were both approximately five years in duration. Unit 2 restarted in May 1991 and Unit 3 restarted in November 1995, following Commission briefings and NRC staff approval of restart. Prior to the restart of these units, the NRC completed significant inspections and closely monitored restart activities to assure that TVA had adequately corrected the issues that caused the shutdown of all three Browns Ferry Units.

On May 16, 2002, the TVA Board of Directors approved the restart effort for Browns Ferry Unit 1 which is planned for completion in 2007 (5-year program). Unit 1 has been maintained by TVA in a defueled lay up condition since 1985. TVA is implementing programs on Unit 1 that are similar to those used for the restart of Units 2 and 3, incorporating improvements and lessons learned.

TVA has assigned dedicated resources for the Unit 1 restart including personnel with experience on restart of Units 2 and 3. The primary difference between the Unit 1 restart and the previous restart efforts for Units 2 and 3 is TVA's approach to remove and replace large piping sections and components, such as the recirculation piping, rather than analyze and attempt to recover them. This was a cost and time-savings lesson learned. A primary regulatory difference from the restart of Units 2 and 3 is in the parallel submittal of license renewal and extended power uprate applications for Unit 1. TVA's objective for the Unit 1 restart is to have all three units "operationally identical" at the completion of the project and to use as many of their current plant processes and procedures as possible.

TVA has implemented provisions to minimize the impacts of the restart project on the operating units. For example, TVA has established a dedicated Unit 1 restart organization, including personnel with experience on the restart of Units 2 and 3. TVA has completed the bulk of the needed design and demolition work and is progressing as planned on completion of major activities in such areas as modification, installation and welding of piping, installation of cable trays and supports, and torus coating replacement.

Regulatory Framework

In the September 17, 1985, 50.54(f) letter, the NRC staff reiterated the staff's understanding that the Browns Ferry and Sequoyah¹ units would not be restarted without NRC concurrence. (At this time, the Watts Bar plant had not yet received a license.) Based on this understanding, the NRC determined that it was unnecessary to issue formal orders in the matter.

On December 13, 2002, TVA submitted its proposed regulatory framework for the Unit 1 restart. The regulatory framework establishes the generic communications, special programs, Technical Specifications changes, and other licensing and regulatory issues that must be addressed prior to the restart of Unit 1. In that letter, TVA confirmed its intention to not restart Unit 1 without prior NRC approval.

Following a public meeting, and after the modification of several areas, the NRC accepted TVA's proposed regulatory framework through the issuance of a regulatory framework letter on August 14, 2003. Based in part on the agreed upon regulatory framework, NRC staff identified which of the TVA activities will require formal review and/or inspections.

Upon completion of the Unit 1 restart effort, TVA plans for the three Browns Ferry units to have essentially identical design and licensing bases. Toward accomplishing this goal, TVA will submit a significant quantity of licensing actions. The regulatory framework provides a listing of generic communications, special programs, commitments, operational readiness, and Technical

¹During this period, TVA had also shutdown its Sequoyah Nuclear Plant in response to management and performance issues. TVA's improvement plans addressed operation of the Sequoyah and Browns Ferry plants and construction of the Watts Bar plant.

Specification changes that need to be addressed by NRR and followed-up by Region II inspections.

The restart effort benefits from the processes established for, and lessons-learned from the restart of the other two Browns Ferry units. Challenges unique to the restart of Unit 1 are focused on the parallel pursuit of extended power uprate and license renewal, as well as the length of time that Unit 1 has spent in lay up (20 years in 2005). The NRC staff is focused on safety in preparing for these challenges and will continue to closely interface with the licensee as the restart effort progresses.

Restart Monitoring

The NRC has established a plant-specific methodology and plan for oversight of the Unit 1 recovery. Region II worked closely with the Inspection Programs Branch of NRR to develop a formal procedure to address the unique nature of the Unit 1 Recovery. After an extensive review of NRC lessons learned from TVA's recovery of the previous two units and a critical evaluation of differences between the previous recoveries and TVA's recovery plans for Unit 1, the oversight plan was formally defined in an NRC Inspection Manual Chapter (IMC), IMC 2509, "BFN Unit 1 Restart Project Inspection Program," which the NRC issued on August 6, 2003, and revised September 8, 2003. The purpose of IMC 2509 is to provide the policies and requirements for the restart inspection program, to establish a Restart Oversight Panel, and to document the major regulatory and licensee actions associated with the restart. In addition, IMC 2509 provides guidance for assessing the licensee's readiness for restart and for the eventual return of the unit to the Reactor Oversight Process (ROP). Prior to the issuance of IMC 2509, the staff informed the Commission via SECY-03-0123 of its plan to use traditional enforcement prior to plant restart.

Public Awareness and Stakeholder Communications

The NRC and TVA have held a number periodic public management meetings to discuss restart status. The first meeting was conducted in headquarters on February 10, 2003. Per MC 2509, subsequent meetings have alternated between Headquarters, the Browns Ferry site, and Region II. The last meeting was held on July 20, 2005, at the Region II offices. At the meeting, the NRC announced their intent to convene the Restart Oversight Panel in October 2005. In addition, on July 20, 2005, the NRC made the BF1 Restart Issues List (RIL) publicly available. The RIL was developed by Region II and Headquarters to define the outstanding regulatory items needing to be addressed prior to restart of the unit. A copy of the BF1 RIL is attached. It is intended that the BF1 Panel will maintain detailed oversight of the issues contained in the RIL and periodic updates will be made publically available to enhance our openness of the restart oversight effort to the public. The RIL shall also serve as a tool to inform TVA of the status of our inspection efforts during their recovery effort.

The licensee's schedule for Unit 1 restart fuel load is Spring 2007. The BF1 Panel shall ensure that appropriate restart inspections are timely and other key regulatory actions are taken in line with the licensee's BF1 recovery schedule.

Other Monitoring Activities

The BF1 Panel will also maintain an awareness of significant licensing actions which may impact the overall restart efforts relating to BF1. Primarily, these licensing actions include the Extended Power Uprate (EPU) application and the License Renewal Application (LRA). The BF1 Panel will primarily provide an oversight of these independent projects to assess their aggregate impact on the BF1 recovery effort and identify areas for specific inspection or other regulatory actions necessary to ensure the safe recovery of the unit.

Restart Approval

The BF1 Panel will make a recommendation to the Regional Administrator, Region II, regarding the restart decision. Following a recommendation by the Restart Oversight Panel and a briefing of the Commission, the Director, Office of Nuclear Reactor Regulation, will be asked to concur with the decision of the NRC Regional Administrator for Region II to allow the licensee to restart BF Unit 1.