



UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION II
SAM NUNN ATLANTA FEDERAL CENTER
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May 16, 2003

Tennessee Valley Authority
ATTN: Mr. J. A. Scalice
Chief Nuclear Officer and
Executive Vice President
6A Lookout Place
1101 Market Street
Chattanooga, TN 37402-2801

SUBJECT: PUBLIC MEETING SUMMARY - MANUAL CHAPTER FOR THE INSPECTION
PROGRAM OF BROWNS FERRY UNIT 1 - DOCKET NO. 50-259

Dear Mr. Scalice:

This refers to the meeting conducted at the request of your staff at the Region II Office in Atlanta, Georgia, on April 29, 2003. The meeting purpose was to discuss the draft NRC Inspection Manual Chapter for the Browns Ferry Unit 1 Recovery Project Inspection Program which you received in a letter dated March 11, 2003. We discussed the background and requirements that dictated the scope of Manual Chapter and the comments raised by your staff. The comments from your staff on the planned NRC oversight approach for the Unit 1 Recovery were generally well received. We agreed to address the majority of them by revising the Manual Chapter, as appropriate. Your staff agreed to provide the comments via the meeting presentation handouts in lieu of making a separate formal written submittal. Enclosure 1 is the list of attendees. Enclosures 2 and 3 are the presentation handouts provided by your staff.

In accordance with 10 CFR 2.790 of the NRC's "Rules of Practice," a copy of this letter will be made available electronically for public inspection in the NRC Public Document Room or from the Publicly Available Records (PARS) component of NRC's document system (ADAMS). ADAMS is accessible from the NRC Web site at <http://www.nrc.gov/reading-rm/adams.html> (the Public Electronic Reading Room).

Should you have any questions concerning this meeting, please contact me at (404) 562-4520.

Sincerely,

/RA/

Stephen J. Cahill, Chief
Reactor Projects Branch 6
Division of Reactor Projects

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

Enclosures: (See page 2)

- Enclosures:
1. List of Attendees
 2. Handout - Browns Ferry Nuclear
Plant - TVA Comments on Draft Manual
Chapter for the Inspection Program of
Browns Ferry Unit 1 Restart Activities
 3. Handout - Browns Ferry Nuclear
Plant - Reactor Oversight Process
Applicability to Browns Ferry Unit 1 Restart

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4

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T. Abney, Manager, Licensing and Industry Affairs
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TVA COMMENTS ON DRAFT MANUAL CHAPTER FOR THE INSPECTION PROGRAM OF BROWNS FERRY UNIT 1 RESTART ACTIVITIES

MANUAL CHAPTER APPROACH

RELATIONSHIP TO THE CURRENT ROP-TVA agrees with the NRC position of applying the current Reactor Oversight Process (ROP) to cornerstones as soon as they become monitorable. Because the public and other stakeholders are familiar with the ROP, applying it as early as possible to monitorable cornerstones will give a more consistent basis for comparison and evaluation of BFN Unit 1 performance in each cornerstone area.

BASIS FOR USE OF MANUAL CHAPTER (MC) 0350-TVA agrees with the section of the draft Manual Chapter explaining the use of MC 0350 for inspection activities related to Unit 1 restart. This section presents a valid rationale for use of MC 0350 in those instances where the ROP cannot be used, and appropriately explains its use even though Unit 1 is not considered a plant with performance problems.

RESTART AUTHORIZATION-The authorization for restart has clearly been delegated to the Region II Administrator with concurrence by the Director, Office of Nuclear Reactor Regulation. Guidance has been provided in the draft Manual Chapter for the input to make this decision. TVA agrees that this appropriate.

MANUAL CHAPTER FOCUS-TVA believes the draft manual chapter is unnecessarily broad in its application. Unit 1 at BFN is being modified to be operationally the same to Units 2 and 3 which have been operating safely since their respective restarts. The same TVA special programs and NRC generic communication resolutions will be done for Unit 1 as Units 2 and 3. The special programs and NRC generic communication resolutions are the vast majority of the remaining regulatory-driven issues for Unit 1 restart. Therefore, TVA believes this manual chapter should focus on implementation of those special programs and the generic communications resolution. The administrative processes TVA will use to implement the special programs and generic communication resolution are the same as those currently in use at the site that are evaluated as part of the baseline inspections in the ROP (e.g. 10 CFR 50.59, PI&R, design control, etc.). As such, TVA does not believe further review of those processes is necessary as part of this manual chapter.

GENERAL COMMENTS

DEVIATION FROM THE CURRENT ROP-TVA believes the subject manual chapter should deviate from the current NRC Reactor Oversight Process only where absolutely necessary. Obviously the cornerstones of Initiating Events, Mitigating Systems, and Barrier Integrity cannot be assessed using the ROP because Unit 1 is a non-operating reactor. However, the remaining four cornerstones, Physical Protection, Emergency Preparedness, Occupational Radiation Safety, and Public Radiation Safety can be, and indeed in some cases are currently being assessed using the ROP inspection procedures. The plant processes affecting performance in these four cornerstones are generic to the site and are not unit specific. Current inspections of Units 2 and 3 evaluate those cornerstones for the site, including Unit 1.

The public and other stakeholders have become increasingly more comfortable with the current ROP, and understand the inspection and performance assessment results produced using that process. Deviating from that process is easily understandable by the public for the cornerstones which are applicable only to an operating reactor. However, the potential for significant confusion and the danger of sending conflicting messages in the other four cornerstones is significant if the ROP inspection procedures and inspection reports for Unit 1 are different than those for Units 2 and 3 for the four cornerstones which can be applied. For example, an inspection report on the Physical Protection cornerstone for Units 2 and 3 could present a different perception than one on Unit 1 using different inspection procedures, when, in fact, physical protection is a generic site function and is the same for all three units. The same principle holds true for all four of the cornerstones which can be inspected and assessed using the current ROP procedures. NEI 99-02, Regulatory Assessment Performance Indicator Guideline, which is endorsed by NRC's Regulatory Issue Summary 01-025, requires performance indicators to be reported as site data for the Physical Protection, Emergency Preparedness, and Occupational Radiation Safety cornerstones. It also specifies that the Public Radiation Safety performance indicator data is a site indicator, but provides for allocation on a unit basis if methods are described in the Offsite Dose Calculation Manual. The BFN Offsite Dose Calculation Manual contains no provisions for allocating a release to a specific unit, therefore, this performance indicator is also a site indicator, and the ROP can be used.

Use of the ROP for these four cornerstones and different inspection procedures for the other three may require an explanation in the inspection reports, but it minimizes departure from the currently accepted and understood process. By immediately applying the ROP to the Physical Protection, Emergency Preparedness, Occupational Radiation Safety and Public Radiation Safety cornerstones, a history of performance indicators and inspection results will exist at restart and will facilitate full implementation of the ROP. This approach can minimize or simplify the transition matrix discussed in section 11 of the draft manual chapter, while allowing flexibility for the Restart Oversight Panel to add inspection procedures as needed to oversee special programs implementation and resolution of generic communications. Enclosure 3 is an evaluation of the seven cornerstones, their performance indicators, and their ROP baseline inspections applicability to Unit 1 restart.

Based on this information, TVA recommends revising the manual chapter to adopt the ROP for the Physical Protection, Emergency Preparedness, Occupational Radiation Safety, and Public Radiation Safety cornerstones without the transition process described in section 11. TVA understands that the software used to report and collect performance indicator data will have to be revised. The revised manual chapter can then focus on the TVA special programs used to modify and restart the unit and specify the inspection program which will be used for oversight of the special programs.

CHARACTERIZATION OF INSPECTION FINDINGS-Under the current ROP, minor violations and non-cited violations, as defined by the process, are characterized and processed differently than they were under the preceding inspection and enforcement process used by NRC. Under the ROP, minor violations are not discussed in inspection reports, and non-cited violations require no response from the licensee. This characterization properly reflects the low safety significance of such violations to the public. Returning to the former inspection and enforcement characterization of these types of findings has the potential of improperly inflating the significance of the findings and creating an inaccurate perception of performance or creating confusion for stakeholders.

Accordingly, TVA recommends consistent use of the Manual Chapter 0612 screening methodology for all findings, regardless of the inspection procedure used. After screening, findings in the Physical Protection, Emergency Preparedness, Occupational Safety, and Public Radiation Safety cornerstones can be assessed using the ROP Significance Determination Process and classified in accordance with the current enforcement policy. Findings outside these four cornerstones which do not lend themselves to classification under the current enforcement policy can be classified by severity level using the former enforcement policy. This method of classification should be included in the manual chapter.

USE OF DELETED OR ARCHIVED INSPECTION PROCEDURES-The draft manual chapter lists numerous inspection procedures in Appendices A and B.

While TVA understands that all the procedures listed in Appendices A and B may not be used, listing them has the potential of creating the expectation in stakeholders that the listed inspection procedures will be used. Additionally, of the 129 procedures listed in the appendices, 78 are not currently available on the NRC web site. The ones not available have been archived or deleted. TVA recommends replacing Appendices A and B with the current ROP baseline inspection procedure list and supplement the list with only those other procedures that are definitely needed because the current baseline inspection program has no corresponding inspection procedure. TVA also recommends reposting those identified procedures on the NRC website. This will eliminate the possibility of a stakeholder looking on the NRC web site for an inspection procedure which was referenced in an NRC inspection report, only to learn it has been deleted from the inspection manual and is not available for review.

DUPLICATION OF ROP BASELINE INSPECTIONS-Some inspections conducted on Units 2 and 3 as part of NRC's baseline inspection program are applicable to the processes utilized on Unit 1 restart. For example, inspection procedure 71152, Identification and Resolution of Problems, is currently used for evaluating the corrective action program (CAP) for Units 2 and 3 in the ROP. The CAP used by TVA for Unit 1 restart is the same program being used for Units 2 and 3. The ROP baseline inspection program procedures should be used for all TVA programs and processes that are generic to the site and are not unit specific (such as PI&R, Design Control, Fire Protection, etc.). Unit 1 should be included as part of the baseline inspection program when those inspections are conducted for Units 2 and 3, and separate inspections of those programs for Unit 1 will not be needed. This will provide efficiencies in performing these inspections.

DESIGNATION OF "PHASES"-Several paragraphs in the draft manual chapter refer to "phases" of the restart effort (renovation phase, pre-restart test phase, restart test phase). TVA's restart efforts are not defined or separated such that the start or end of these phases are discrete milestones. For example, component functionality testing (pre-restart testing) may occur as part of a system design change closure and; therefore, would have no discrete break between modification and testing. TVA suggests replacing the term "renovation phase" with "maintenance and modification activities" and replace "pre-restart testing phase and startup testing phase" with "restart testing activities" throughout the manual chapter.

USE OF TEMPORARY INSTRUCTIONS (TI)- TVA recommends a different approach to use of the TIs in Appendix A to gain efficiencies and effectiveness. Applicability of the TIs should be evaluated considering the purpose of the original TI and previous TI inspection results at BFN 2 and 3. In many cases, TIs were used to gather information on industry implementation of new rules or requirements. For Unit 1, this type of information may not be needed. TVA does not believe an inspection using the entire scope of the listed TIs is warranted if the programs inspected by those TIs have previously been inspected and accepted at Browns Ferry. For example, the MOV test program resulting from Generic Letter 89-10 has been inspected at the site. That same program will be used on the Unit 1 MOVs. Accepting the prior program inspections and inspecting the results of the Unit 1 program and any differences between Units 2 and 3, will eliminate unnecessary duplication and focus inspection personnel in areas which have not been previously inspected.

SPECIFIC COMMENTS

The following specific comments are keyed to the corresponding paragraph in the draft inspection plan.

02.01-It is not clear what "engineering evaluations" mean. TVA suggests revising "evaluations" to read "calculations."

02.03-TVA recommends revising this section to eliminate the objective of verifying the implementation of the design control program. The design control program being used for Unit 1 is the same program currently in use on Units 2 and 3, and its adequacy has been assessed in the ROP. TVA also recommends removing the words "and other programs (i.e., security and radiation protection)." These programs can be evaluated under the ROP.

03.01-TVA recommends removing the words "Technical Specifications have not been fully updated" from this paragraph. This statement implies that Unit 1 Technical Specifications are not current, however, the Unit 1 Technical Specifications are representative of the current unit status. The Unit 1 Technical Specifications were upgraded to the Improved Standard Technical Specifications in 1998. Generally, only those changes to reflect modifications to Unit 1 will be required to revise the Unit 1 Technical Specifications.

04.04.b-This paragraph is very specific in indicating that "the licensee's operations staff" will direct pre-restart tests. Although some of these tests may be directed by the BFN operations staff, some may be directed by contract personnel. To avoid confusion, TVA recommends deleting the words "by or under the direction of the licensee's operations staff."

04.05-TVA recommends replacing the word "operation" in the second line with "procedures."

04.07-TVA recommends replacing "promote" in the second line with "support."

05.01.b-This paragraph conflicts with paragraph 05.05.a, which assigns authority for implementation of the inspection program to the Region II Administrator. TVA recommends removing the words "and directs the implementation of" from paragraph 05.01.b.

05.10-This section directs the distribution of the restart panel reports; however, TVA believes a statement of organizationally to whom this panel is responsible is warranted.

05.10.f-Consistent with the general comment of immediately utilizing the ROP for the Physical Protection, Emergency Preparedness, Occupational Radiation Safety, and Public Radiation Safety cornerstones noted above, TVA recommends revising this paragraph to include only the cornerstones of Initiating Events, Mitigating Systems, and Barrier Integrity.

0.7.01.e-TVA recommends also grouping inspections according to TVA special programs/generic communications. Grouping the inspections in this manner will allow easier determination that the inspections for a particular special program/generic communication have been completed. Additionally, risk insights should be used to determine SSCs to be inspected as part of each special program/generic communication to improve inspection efficiencies.

07.02.g-Consistent with the fourth general comment above, TVA recommends deleting the words "During the pre-restart testing phase" from this paragraph.

07.02.h-TVA does not believe this review is necessary. As previously stated, BFN uses the same corrective action program on all three units. That program is regularly inspected as part of the current ROP baseline Problem Identification and Resolution (PI&R) inspection. The PI&R inspections should include Unit 1 activities, consistent with other three-unit sites.

08.04.a-TVA agrees that the ORAT scope should be tailored to the Unit 1 circumstances as indicated in this paragraph. The ORAT scope as defined in Inspection Procedure 93806 is primarily geared to new plants. As a result, much of the scope is not applicable to Unit 1. Many of the subject areas listed for inspection will already have been inspected as part of the ROP because they consist of site wide programs (e.g., management oversight, operator training, corrective action program, maintenance program, etc.). TVA believes the ORAT does not need to duplicate those inspections and the ORAT should focus on those areas not previously inspected at BFN. TVA recommends that the list of subject areas be deleted and discussion provided to better define the scope of this inspection. Alternatively, the reference to the ORAT inspection procedure could be deleted and replaced with a discussion of the content of a final inspection.

09-TVA believes the approach of listing exceptions to MC 0350 will prove cumbersome and confusing to those implementing this manual chapter. By revising this manual chapter as suggested in the first general comment, this section of the manual chapter can be rewritten to incorporate the applicable portions of MC 0350.

09.01.b-This paragraph conflicts with paragraph 05.01.f, which requires the Director, NRR, concurrence with Unit 1 restart.

10.02-TVA believes this paragraph more appropriately belongs in section 7, "General Inspection Policy."

10.06.a.1-TVA suggests replacing "equivalent" with "other formal tracking system."

12.01-Previous comments to place security under the ROP eliminates the need for this section of the manual chapter. However as written, this section indicates an NRC expectation that some installation of security features will occur as part of Unit 1 restart. TVA has maintained the security program on all three units, and no security modifications are planned on Unit 1 as a result of the change in operating status. TVA recommends deleting section 12.01, or removing this wording from the paragraph.

Initiating events

- | | |
|---|-----------------------------------|
| | Some
Require Operating
Unit |
| 1. Unplanned reactor shutdowns (automatic and manual)
Unit | Requires Operating |
| 2. Loss of normal reactor cooling system following unplanned shutdown
Unit | Requires Operating |
| 3. Unplanned events that result in significant changes in reactor power
Unit | Requires Operating |

Mitigating Systems

Some Require Operating Unit

- | | |
|---|--------------------|
| 1. Safety System not available
or Fueled Unit
Specific Emergency Core Cooling Systems
Emergency Electric Power Systems | Requires Operating |
| 2. Safety System Failures
or Fueled Unit | Requires Operating |

Integrity of barriers to release of radioactivity

Some Require Operating Unit

- | | |
|--|--------------------|
| 1. Fuel Cladding (measured by radioactivity in reactor cooling system)
Unit | Requires Operating |
| 2. Reactor cooling system leak rate
Unit | Requires Operating |

Emergency Preparedness

None Require Operating Unit

- | | |
|---|---------------|
| 1. Emergency response organization drill performance | Site Level PI |
| 2. Readiness of emergency response organization | Site Level PI |
| 3. Availability of notification system for area residents | Site Level PI |

Occupational Radiation Safety

None Require Operating Unit

- | | |
|--|---------------|
| 1. Compliance with regulations for controlling access to radiation areas in plant | Site Level PI |
| 2. Uncontrolled radiation exposures to workers greater than 10 percent of regulatory limit | Site Level PI |

Public Radiation Safety

None Require Operating Unit

- | | |
|--|---------------|
| 1. Effluent releases requiring reporting under NRC regulations and license condition | Site Level PI |
|--|---------------|

Physical Protection

None Require Operating Unit

- | | |
|--|---------------|
| 1. Security system equipment availability | Site Level PI |
| 2. Personnel screening program performance | Site Level PI |
| 3. Employee fitness-for-duty program effectiveness | Site Level PI |

INSPECTION MODULE APPLICABILITY JUSTIFICATION

Four NRC plant assessment cornerstones can be applied to Browns Ferry Unit 1 during its restart efforts. Those cornerstones are: Emergency Preparedness, Occupational Radiation Safety, Public Radiation Safety, and Physical Protection. These cornerstones can be used to assess Unit 1 because the TVA programs and processes for these cornerstones are applied by TVA generically to all three units at Browns Ferry and are applicable to Unit 1 today. None of the TVA cornerstone programs are unit specific, and the supporting ROP baseline inspections can be applied to Unit 1 in its current configuration and status. A list of NRC baseline inspections for the seven assessment cornerstones is attached. In addition to the baseline inspections for these four cornerstones, the four generic program baseline inspections not tied to a cornerstone are applicable to Unit 1 because they are also generic to all three units.

Section 03.05 of the draft Browns Ferry Unit 1 Restart Project Inspection Program allows the Restart Oversight Panel to transition to individual cornerstones when they become monitorable by inspection and PIs under the ROP.

Advantages of transition to individual ROP cornerstones include: an easier transition to the full ROP following unit restart, use of the significance determination process to characterize finding significance, utilization of the process which has become accepted and understood by the public for existing operating reactors, and preventing possible conflicting perception of a generic cornerstone by classifying and reporting findings differently on Unit 1 (for example, different definitions of what constitutes a minor violation).

BASELINE INSPECTION PROCEDURES

Inspectable Area	Initiating Events	Mitigating Systems	Barrier Integrity	Emergency Preparedness	Occupational Radiation Safety
Access control to radiologically significant areas					X
Access authorization					
Access control					
Adverse weather protection	X	X			
ALARA planning and controls					X
Alert and notification system testing				X	
Drill evaluation				X	
Emergency response organization augmentation testing				X	
Emergency action level and emergency plan changes				X	
Emergent work	X	X			
Equipment alignment	X	X	X		
Evaluations of changes, tests, or experiments		X	X		
Exercise evaluation				X	
Fire protection	X	X			

Inspectable Area	Initiating Events	Mitigating Systems	Barrier Integrity	Emergency Preparedness	Occupational Radiation Safety
Flood protection measures	X	X			
Heat sink performance	X	X			
Identification and resolution of problems	X	X	X	X	X
Inservice inspection activities	X		X		
Licensed operator requalification		X	X		
Maintenance risk assessments and emergent work evaluation	X	X	X		
Maintenance rule implementation	X	X	X		
Operability evaluations		X			
Operator workarounds		X			
Permanent plant modifications		X	X		
Personnel Performance during nonroutine evolutions	X	X	X		
Post maintenance testing		X			
Radiation monitoring instrumentation					X
Radiation worker performance					X
Radioactive material processing and transportation					

Inspectable Area	Initiating Events	Mitigating Systems	Barrier Integrity	Emergency Preparedness	Occupational Radiation Safety
Radioactive Gaseous and liquid effluent treatment and monitoring systems					
Radiological environmental monitoring program					
Refueling and outage activities	X	X	X		
Response to contingency events					
Safety system design and performance capability		X			
Security plan changes					
Surveillance testing		X	X		
Temporary plant modifications		X	X		