

December 24, 1996

Tennessee Valley Authority
ATTN: Mr. Oliver D. Kingsley, Jr.
President, TVA Nuclear and
Chief Nuclear Officer
6A Lookout Place
1101 Market Street
Chattanooga, TN 37402-2801

SUBJECT: NOTICE OF VIOLATION
(NRC INSPECTION REPORT NO. 50-259/95-15, 50-260/95-15, AND
50-296/95-15)

Dear Mr. Kingsley:

We have completed our review of your response on June 20, 1995, to our Notice of Violation issued on May 5, 1995, concerning activities conducted at your Browns Ferry facility. In your response, you admitted Violation A and denied Violation B.

After consideration of the basis for your denial of Violation B, we have concluded, for the reasons presented in the Enclosure to this letter, that Violation B occurred as stated in the Notice of Violation. Since your June 20, 1995, response contained written statements regarding steps taken to correct Violation B and the results achieved, corrective steps which will be taken to avoid further violations, and that full compliance was achieved, no additional response is required.

We will examine the implementation of your corrective actions during further inspections.

Sincerely,

Original signed by

Albert F. Gibson

Albert F. Gibson, Director
Division of Reactor Safety

Docket Nos. 50-259, 50-260, 50-296
License Nos. DPR-33, DPR-52, DPR-68

Enclosure: Evaluations and Conclusion

cc w/encl: (See page 2)

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(Distribution - See page 3)

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DATE	12 / 17 / 96	12 / 17 / 96	12 / 19 / 96	12 / 17 / 96	12 / 17 / 96	12 / 20 / 96
COPY?	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO

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Evaluation and Conclusion

Notice of Violation

On May 5, 1995, a Notice of Violation (Notice) was issued for a violation identified during a routine NRC inspection. TVA responded to the Notice on June 20, 1995. TVA denied Violation B based on their contention that Revision 10 of Site Standard Procedure 3.4 cited in the violation was not in effect when the Problem Evaluation Report (PER) was initiated, and that their extent of condition review for the PER did comply with the requirements of Revision 9 of Site Standard Procedure 3.4. The NRC's evaluations and conclusions regarding the licensee's denial are as follows:

Restatement of Violation B

10 CFR 50, Appendix B, Criterion V, requires that activities affecting quality shall be prescribed by instructions, procedures, or drawings of a type appropriate to the circumstances, and shall be accomplished in accordance with these instructions, procedures or drawings. Paragraph 3.6.C of Site Standard Procedure 3.4, Corrective Action Program, Revision 10, dated May 16, 1994, requires performance of a review to determine the extent of condition of problems identified on Level A and B Problem Evaluation Reports (PER).

Contrary to this requirement, the extent of condition review performed for PER number BFPER 940097, a Level B PER, did not evaluate the extent of condition (that is the effect or generic applicability) of the PER on the operability of the Unit 2 drywell structural steel platforms for the method of analysis involving the theoretical cut-off point for cover plates.

This is a Severity Level IV violation (Supplement 1) applicable to Unit 2 only (Docket No. 50-260).

Summary of Licensee's Response

The licensee contends that when BFPER 940097 was initiated on May 5, 1995, the applicable revision of SSP-3.4 was Revision 9, rather than Revision 10 as stated in the Notice. Revision 9 of SSP-3.4 did not specify PER classification levels. Section 3.7 of SSP-3.4, Revision 9, addressed the need to evaluate extent of condition. The licensee contends that Revision 9 permitted use of engineering judgement to evaluate the extent of condition for the problem identified in BFPER 940097. TVA contends that the evaluation of the extent of condition evaluation performed for BFPER 940097 satisfied the procedural requirements in place at that time.

Enclosure

NRC Evaluation

NRC Region II reviewed the licensee's response, discussed this issue with the licensee during a meeting in the Region II Office on April 6, 1995, and concluded that the licensee did not provide any additional information that had not been considered when this violation was initially identified. The licensee's principal contention in their denial of the violation is based on the fact that Revision 10 of SSP-3.4 was not in effect when BFER 940097 was initiated, and that the extent of condition evaluation for this PER complied with the procedural requirement of Revision 9 of SSP-3.4.

Revision 0 of BFER 940097 was initiated on May 5, 1994, in accordance with the requirements of Revision 9 of TVA Site Standard Practice SSP-3.4, Corrective Action Program. The effective date for Revision 9 was February 11, 1994. Part A of the PER was completed on May 13, 1994. Part A included completion of steps 1A through 10A of the Problem Evaluation Report in Appendix B of SSP-3.4, following the Instructions for paragraph 3.1 through 3.5.4 of SSP-3.4, Revision 9. On May 16, 1994, Revision 10 of SSP-3.4 became effective. After May 16, 1994, the licensee continued processing BFER 940097 in accordance with the requirements of Revision 10, of SSP-3.4, paragraphs 3.4 through 3.15. The Problem Evaluation Report Form from Appendix B of SSP-3.4 Revision 10 was used to document disposition and close out of Revision 0 of the PER. This included the corrective action development, extent of condition review, and assignment of PER Level.

BFER 940097 was revised to Revision 1 on July 7, 1994. Revision 1 of the PER was not closed until May 1995.

The NRC does not agree that TVA performed an adequate extent of condition review of this PER on the operability of the Unit 2 drywell structural steel platforms for the method of analysis involving the theoretical cut-off point for cover plates. The extent of condition review which TVA stated that they performed when corrective action was developed for the PER did not meet the requirements specified in Paragraph 3.7.1.E of Revision 9 of SSP-3.4 and was not documented as required by either Revision 9 or 10 of SSP-3.4.

The issue identified in BFER 490097 regarding cover plate development is very complex. This problem resulted in detailed review of Unit 3 platform steel calculations by senior level Bechtel engineers to develop criteria to resolve the concerns. Actions taken included the following:

- Issue of Bechtel Report on Browns Ferry Unit 3 Drywell Miscellaneous Steel Issues dated April 26, 1995.

- Issue of calculation number CD-Q303-950105, Revision 0, dated May 2, 1995, guidelines for Evaluation of Miscellaneous Structural Steel/Transfer of Stress Along Modified Cross-Section.
- Revision of Unit 3 platform structural steel calculations which resulted in identification of some additional hardware modifications to correct identified problems.

After the inspector raised questions on the effect of the cover plate development issue on the Unit 2 platform calculation in December 1994 (see Paragraph 5.0 of NRC Inspection Report Nos. 509-259,260,296/94-29), TVA initiated a detailed review of development length for cover plates for Unit 2 drywell steel beams in calculation number CD-Q2303-950053, Revision 0, dated March 29, 1995. This calculation was not completed at the inspector's request, but rather to address the complex issue of cover plate development for Unit 2. The purpose of this calculation was to investigate whether there was any deficiency in the methodology used for cover plate design of Unit 2 Drywell platform steel, whether the deficiency (if any) will lead to a possible modification of Unit 2 Drywell steel.

Calculation CD-Q2303-950053 concluded that although development lengths of cover plates or side plates had not been addressed in most of the Unit 2 Drywell platform steel calculations, adequate lengths of plates and welds had been provided for proper transitioning of the stresses and no modification were required to Unit 2.

The licensee initiated BFPER 950324 to document corrective action to address cover length development in the Unit 2 drywell structural steel beams. Corrective action for this PER resulted in revision of twelve Unit 2 calculations.

NRC Conclusion

For the above reason, NRC concludes that the violation occurred as stated.