Tennessee Valley Authority, Post Office Box 2000, Decatur, Alabama 35609-2000

R. D. (Rick) Machon
Vice President, Browns Ferry Nuclear Plant

June 20, 1995

U. S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Washington, D.C. 20555

10 CFR 2
Appendix C

Gentlemen:

In the Matter of	)	Docket Nos. 50-259
Tennessee Valley Authority	)	50-260
		50-296

BROWNS FERRY NUCLEAR PLANT (BFN) - NRC INSPECTION REPORT 50-259, 260, 296/95-15 - REPLY TO NOTICE OF VIOLATION (NOV)

This letter provides our reply to a NOV transmitted by A. F. Gibson's May 5, 1995 letter to O. D. Kingsley Jr. Per telecon with Mark Lesser, NRC, and Pedro Salas, TVA, NRC agreed to extend the due date of this response to June 20, 1995.

The NOV cited TVA with two violations. The first violation involved two examples of failure to follow procedure. We admit this violation and provide certain clarifications. Insofar as the second violation for failure to implement the corrective action program, we do not believe that a violation of NRC requirements occurred. Accordingly, we deny this violation. Enclosures 1 and 2 contain our replies to these NOVs. Enclosure 3 contains commitments made in this letter.

We are also concerned about a number of NRC's observations in the inspection report regarding our work processes and corrective action processes, as well as our process for maintaining design documents. These observations are disturbing because they are largely inconsistent with the findings of our internal assessments and with the message communicated in other NRC inspections that have looked at these same issues. We believe that the issues identified in this NOV are isolated and that, in general, plant documents

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and design modification packages are satisfactory and plant configuration is maintained. This is supported by our own internal field observations and documented in your most recent inspection report 95-27 dated June 9, 1995. If you have any remaining concerns, we would appreciate the opportunity to discuss them with you at your convenience.

If you have any questions regarding this reply, or if you would like to discuss our aforementioned concerns, please telephone Pedro Salas, Manager of Site Licensing, at (205)729-2636.

Sincerely,

R. D. Machon
Site Vice President

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ENCLOSURE 1
TENNESSEE VALLEY AUTHORITY
BROWNS FERRY NUCLEAR PLANT (BFN)

INSPECTION REPORT 50-259, 260, 296/95-15
REPLY TO VIOLATION A

RESTATEMENT OF VIOLATION A

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. Procedures, instructions, or drawings were not implemented for installation of modifications as described below:

1. Paragraph 6.3.1.3.6.1 of TVA Modification and Addition Instruction MAI-5.9, Fabrication and Installation of Structural and Miscellaneous Steel, Revision 2, dated June 20, 1994, states "All new and modified welds shall be visually inspected in accordance with SSP 7.50". Paragraph 4.25 of SSP 7.50, Controlling Welding, Brazing, and Soldering Processes, states craft foremen and quality control inspectors document completion and inspection of welding activities on the weld data sheets. Drawing number 3-48 E1003-2, Revision 2, required the welds on each side of the stiffeners plates attached to the embedded plate for miscellaneous steel frame 3-48W1003-205 to be increased from the existing 1/8 inch to 3/16 inch fillet welds.

   Contrary to these requirements, the fillet welds which attached the stiffener plates to the embedded plate were not increased to the 3/16 inch size specified on the design drawing. The weld data sheet completed by the foreman and quality control inspector indicated that the weld had been modified as required. The weld sizes were measured to be 1/8 inch. The weld had not been modified.

2. Paragraph 6.2.2.7 of TVA Modification and Addition Instruction MAI 4.2A, TVA-BFNP Piping/Tubing Supports, Revision 17, dated November 18, 1994, states that Quality Control inspectors are required to visually verify that conduit supports had been installed in accordance with the design drawings.

   Contrary to this requirement Support No. 3-48B3800-2088 had not been inspected.

This is a Severity Level IV violation (Supplement 1) applicable to Unit 3, only (Docket No. 50-296)

TVA's REPLY TO VIOLATION A, EXAMPLE 1

1. Reason For The Violation

This violation resulted from personnel error during the preparation of a drawing that was part of the modification package. As a result, the drawing depicted only one beam above Elevation 551 connected to the embedded plate, instead of the two beams that are actually installed. Additionally, this drawing did not contain any locating dimensions to indicate the vertical distance from Elevation 551 to the beam that was to be modified.

Contributing to this violation was a highly congested work area. Specifically, the area on top of the torus near the beams is an inherently congested area due to the presence of piping and pipe supports. Compounding this congestion was another separate work activity that was in progress to install a pipe support. This pipe support is located within approximately 5 feet of the lower beam (the beam that should have been modified). As part of this other work activity, workers associated with this task had covered the lower beam with a catch cloth. This cloth was used to contain the debris resulting from the pipe support installation activities. However, this catch cloth prevented the workers tasked with upgrading the weld from seeing the lower beam.

Therefore, since the workers saw only one beam in the field and only one beam on the modification drawing, the workers assumed that they were working/worked on the correct beam.

2. Corrective Steps That Have Been Taken And Results Achieved

TVA issued a Problem Evaluation Report (PER) to determine the root cause of this event and develop necessary corrective actions. As part of this PER, TVA generated a work order to upgrade the welds on the lower beam. These welds have been upgraded. TVA also revised the applicable drawing to provide an elevation for the lower structural beam. Additionally, TVA counseled appropriate engineering personnel on the conditions addressed in this PER and the need to provide more complete and accurate details in future design changes.

3. Corrective Steps That [Have Been Or] Will Be Taken To Avoid Further Violations

No further corrective actions are necessary.

4. Date When Full Compliance Will Be Achieved

TVA is in full compliance.

TVA'S REPLY TO VIOLATION A, EXAMPLE 2

1. Reason For The Violation

This violation resulted from personnel errors during the installation of this conduit support and during the subsequent modification closure activities. Specifically, per conduit support work plan (WP) 4311-92, typical support 431192-7-B805-013 was fabricated and installed. Following installation of the support, the craftsman that installed the support, the craftsman's foreman, and Quality Control (QC) personnel should have documented the installation and inspection on Modification and Addition Instruction (MAI) MAI-3.1 Data Sheet 1. However, there was no documentation in the WP to show that the support had been installed and inspected.

Following installation of this typical support, the field engineer (FE) initiated a field design change notice (FDCN F23850 AA-01) to make this typical support a unique support. This FDCN would document that this support was a unique support and renumber the support as 3-48B3800-2088, but would not make any hardware changes to the support. Since there were no hardware changes involved, the typical support remained installed, pending incorporation of the FDCN into the work plan. However, the FE failed to incorporate the FDCN into the work plan that installed the support. As a result, the FE did not prepare a package, with the necessary MAI data sheets, to document installation and inspection of the unique support.

After the conduit support installation and other associated modification activities were completed, the Workplan Closure Group closed the applicable design change. However, these individuals failed to verify that FDCN F23850 AA-01 had been implemented.

2. Corrective Steps That Have Been Taken And Results Achieved

TVA issued a Problem Evaluation Report (PER) to determine the root cause of this event and develop necessary corrective actions. As part of this PER, TVA generated a work order to document installation and inspection of the unique support.[1] This work has been completed and properly documented in the work order.

Prior to issuance of this violation, TVA had developed and issued a formal checklist for the Workplan Closure Group to use when closing design changes. As part of this checklist, individuals are specifically required to verify that FDCNs have been implemented.

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[1] The support did not require modification.

3. **Corrective Steps That [Have Been Or] Will Be Taken To Avoid Further Violations**

To determine if other installed supports have not been inspected/accepted, TVA intends to review a sample of safety-related conduit supports (both typical supports and unique supports). As part of this action, TVA will review installation documentation to verify that the supports are acceptable. TVA expects to complete this action by August 14, 1995. Based on the results of this sample review, TVA will take any necessary additional actions.

TVA will also counsel Field Engineers to emphasize that FDCNs must be incorporated into the proper work implementing document. TVA expects to complete this action by July 14, 1995.

4. **Date When Full Compliance Will Be Achieved**

TVA is in full compliance.

ENCLOSURE 2
TENNESSEE VALLEY AUTHORITY
BROWNS FERRY NUCLEAR PLANT (BFN)

INSPECTION REPORT 50-259, 260, 296/95-15
REPLY TO VIOLATION B

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 BF PER 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)

TVA's REPLY TO VIOLATION B

1. **Background**

   BFPER940097 was initiated on May 5, 1994. At the time this PER was initiated, the applicable revision of SSP-3.4 was Revision 9, which became effective February 11, 1994 - rather than Revision 10 as is stated in the NOV. Additionally, when this PER was initiated it did not have a classification level (i.e., Level A, B, C, or D)[1]. This is a significant consideration because it was Revision 10 that incorporated the existing classification levels for PERs and increased the rigor for conducting extent of condition reviews for Level A and B PERs.

   Section 3.7 of SSP-3.4, Revision 9, "Corrective Action Development," addressed the need to evaluate the "extent of condition, such as identification and resolution of other

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[1] This PER was leter incorrectly classified as a Level B PER.

examples of the conditions at the site or within the organization." As permitted by this procedure, TVA used engineering judgement to evaluate the extent of this condition and determine that it did not impact Unit 2.

2. **Basis For Disputing The Violation**

TVA does not contest that it did not rigorously document its evaluation of the impact of this event on Unit 2. However, TVA does not believe that this represents a violation of the procedure in effect at the time, and therefore does not believe that a violation of NRC regulatory requirements occurred. Accordingly, TVA denies this violation.

When TVA developed the corrective actions for BFPER940097, TVA considered the extent of this condition on Unit 2. BFN Engineering personnel reviewed Unit 3 features that supported systems required for Unit 2 operation. This review is documented in the PER.

Following this review, the BFN Lead Civil Engineer discussed this PER with Engineering management personnel. Based, in part, on the above review and previous independent reviews of structural steel and Engineering's steel calculations performed prior to Unit 2 restart, Engineering management concluded that this Unit 3 condition did not further impact Unit 2. This conclusion is supported by a subsequent calculation that TVA performed at the NRC inspector's request. Accordingly, TVA concludes that the evaluation of the extent of condition of BFPER940097 satisfied the procedural requirements in place at the time.

3. **Corrective Steps That Have Been Taken And Results Achieved**

Subsequent to initiating BFPER940097, TVA revised the BFN corrective action program. Some of the changes resulting from this revision included lowering the threshold for initiating a PER, improving trending, and integrating other existing corrective action program elements into the PER process. Other changes, as discussed briefly above, included establishing the four levels of PERs to deal with issues of varying significance and to provide for the evaluation, review, and approval of these PERs commensurate with their significance.

Although not required to do so, on March 22, 1995, TVA initiated BFPER950324 to specifically address and document the extent of condition of BFPER940097 on Unit 2 drywell platform steel as a separate activity. In this PER, TVA confirmed that an adequate length of cover plate existed to ensure proper transition of the beam stresses. TVA also updated existing calculations but did not perform any hardware modifications, since no modifications were required to meet design basis criteria.

In summary, TVA confirmed its earlier conclusion that the condition identified in BFPER940097 does not impact Unit 2. This conclusion is documented in BFN design calculation CD-Q2303-950053.

4. **Corrective Steps That [Have Been Or] Will Be Taken To Avoid Further Violations**

No further corrective actions are necessary.

5. **Date When Full Compliance Will Be Achieved**

TVA is in full compliance.

ENCLOSURE 3
TENNESSEE VALLEY AUTHORITY
BROWNS FERRY NUCLEAR PLANT (BFN)

INSPECTION REPORT 50-259, 260, 296/95-15
LIST OF COMMITMENTS

In this submittal, TVA has identified several corrective actions that either have been or will be taken. One of these actions is a regulatory commitment (i.e., an action that is necessary to restore compliance with an obligation); others are voluntary enhancements. Listed below is the statement TVA considers to be a regulatory commitment.

TVA will counsel Field Engineers to emphasize that field design change notices must be incorporated into the proper work implementing document. TVA expects to complete this action by July 14, 1995.