



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

June 7, 2011

10 CFR 50.4

ATTN: Document Control Desk
U. S. Nuclear Regulatory Commission
Washington, D.C. 20555-0001

Browns Ferry Nuclear Plant, Units 1, 2, and 3
Facility Operating License Nos. DPR-33, DPR-52, and DPR-68
NRC Docket Nos. 50-259, 50-260, and 50-296

Subject: Response to NRC Annual Assessment Letter

Reference: Letter from NRC to TVA, "Annual Assessment Letter for the Browns Ferry Nuclear Plant Unit 1 (NRC Inspection Report 05000259, 260, 296/2011001)," Dated March 4, 2011

In the referenced letter, the NRC requested that the Tennessee Valley Authority (TVA) provide a written response to describe actions taken to address the substantive cross-cutting issue associated with the cross-cutting aspect of "thorough evaluation of identified problems" (P.1(c)) in the Corrective Action Program component of Problem Identification and Resolution. Enclosed is TVA's response to the NRC request.

There are no regulatory commitments contained within this letter. Should you have any questions concerning this submittal, please contact J. E. Emens, Jr., Nuclear Site Licensing Manager at (256) 729-2636.

Respectfully,

A handwritten signature in black ink, appearing to read 'K. J. Poison'.

K. J. Poison
Vice President

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cc(Enclosure):

NRC Regional Administrator - Region II

NRC Senior Resident inspector - Browns Ferry Nuclear Plant

Enclosure

**Browns Ferry Nuclear Plant
Units 1, 2, and 3**

**Browns Ferry Nuclear Plant
Response to the March 4, 2011, NRC Annual Assessment Letter**

SEE ATTACHED:

**Response to the March 4, 2011, NRC Annual Assessment Letter
For Browns Ferry Nuclear Plant (BFN)**

Background

In the March 3, 2010, Annual Assessment Letter (Reference 1), the NRC assigned a substantive cross-cutting issue (SCCI) in the Corrective Action Program component of Problem Identification and Resolution associated with the cross-cutting aspect of "thorough evaluation of identified problems" (P.1(c)). The letter identified four Green inspection findings for the 12-month assessment period, each with a documented cross-cutting aspect of "thorough evaluation of identified problems" under P.1(c). In a December 2010 inspection (Reference 2), NRC assessed TVA's progress on the development and implementation of corrective actions necessary to resolve the SCCI previously identified in the March 3, 2010, Annual Assessment Letter. The NRC found, in general, the evaluation was technically accurate and of sufficient depth to address the issue. The inspectors also determined that TVA had appropriately identified and prioritized the corrective actions. However, the inspectors noted that a rigorous evaluation of why previous actions were ineffective was not included and that clearly defined success measures were not defined for the critical aspects of all of the corrective actions to prevent recurrence. During the review, the inspectors identified two corrective actions which were not completely implemented as intended. The inspectors were unable to assess the effectiveness of the completed and open corrective actions due to the number of open corrective actions and limited the time since implementation of completed corrective actions.

NRC Request

In the March 4, 2011 Annual Assessment Letter (Reference 3), the NRC noted that it was the third consecutive assessment letter identifying this same cross-cutting aspect in which TVA did not meet the criteria for closing the SCCI, and requested that TVA provide a written response to describe actions to assess the issues pertaining to the SCCI.

TVA Response

In response to the multiple violations with cross-cutting aspects in the P.1 area, TVA issued in April 2010 a Corrective Action Program Problem Evaluation Report (PER 223536) to evaluate the NRC identified violations associated with the cross-cutting issue related to problem identification and evaluation. The evaluation found that managers and supervisors were not effectively monitoring and challenging worker performance to instill and reinforce high standards. Management had accepted a station culture of decision making that has resulted in non-conservative task performance outside risk-informed procedures and processes, and TVA had tolerated long standing risk-significant equipment deficiencies.

TVA implemented corrective actions to prevent recurrence including (1) a formal leadership development and training program to strengthen managers' understanding of their accountability and their abilities in the areas of coaching and providing feedback to workers; (2) development of human performance tools for conservative decision-making; and (3) modification of the long range budget process to include the consideration of risk significance in the long range planning process.

As a result of the December 2010 (Reference 2) NRC inspection, TVA issued an additional PER (312282) to address inappropriate closure of PER actions, to evaluate why previous actions were not effective, and to ensure effectiveness review metrics are in place. Completed actions from this PER include:

- Development of metrics to track performance trends associated with A and B level PER actions greater than 120 days old and those greater than 1 year old, number of extensions for A and B level PERs, and effectiveness review rejections and extensions. Additional metrics are in development to improve performance monitoring in the area of thoroughness of problem evaluations (P.1(c)) and timeliness of corrective actions (P.1(d)).
- Use of a closure review board to review closed corrective actions associated with the multiple NRC Identified Violations with cross-cutting aspects in the P.1 component.
- Evaluation of the reason(s) why previous corrective actions for PER 136489 were not effective. The evaluation concluded in part that prior corrective actions have focused on improvements in CAP procedure contents and personnel training and qualification, but had not driven a continued focus on execution of the requirements. Ongoing corrective actions from PER 223536 will address compliance with requirements. The PER 223536 corrective action to prevent recurrence (implementation of a leadership development and training program) has been completed since the last NRC inspection of TVA's efforts to resolve the P.1(c) SCCI.

Additionally, site Engineering completed a multiple event investigation on March 18, 2011, which encompassed issues identified in INPO areas for improvement, NRC Non-Cited Violations, Quality Assurance quarterly reports, Integrated Trend Report quarterly reports, and plant significant events. The apparent cause evaluation scope of PER 311715 was to determine why Engineering exhibits weaknesses in applying rigor. The corrective actions from PER 311715 include actions that address issues related to the SCCIs associated with problem identification and resolution.

References:

1. Annual Assessment Letter - Browns Ferry Nuclear Plant (NRC Inspection Report 05000259/2010001, 05000260/2010001 and 05000296/2010001), dated March 3, 2010
2. Letter from NRC to TVA, "Browns Ferry Nuclear Plant - NRC Integrated Inspection Report 05000259/2010005, 05000260/2020005, 05000296/2010005 and Notice of Violation," dated February 9, 2011
3. Letter from NRC to TVA, "Annual Assessment Letter for the Browns Ferry Nuclear Plant Unit 1 (NRC Inspection Report 05000259, 260, 296/2011001)," dated March 4, 2011