WBN2Public Resource

From: Poole, Justin
Sent: Monday, June 25, 2012 8:22 AM
To: 'garent@tva.gov'; Bryan, Robert H Jr; wdcrouch@tva.gov
Cc: WBN2HearingFile Resource
Subject: DRAFT Need for information on Fire Protection Report
Attachments: DRAFT NRC Question WBN Multiple High Impedence Fault.docx

Gordon,

In reviewing TVA's recent FPR submittal, the staff has come up with the attached questions. Please review to ensure that the questions are understandable, the regulatory basis is clear, there is no proprietary information contained, and to determine if the information was previously docketed. If further clarification is needed, and you would like to discuss the questions in a conference call, let us know. This email does not convey a formal NRC staff position, and it does not formally request for additional information.

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Created By: Justin.Poole@nrc.gov

Recipients:
"WBN2HearingFile Resource" <WBN2HearingFile.Resource@nrc.gov>
Tracking Status: None
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MESSAGE	706	6/25/2012 8:21:38 AM	
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Options
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NRC question: MHIF analysis:

The response to NRC request for additional information (RAI) 5, in TVA's May 30, 2012 letter, adequately addressed the NRC question. TVA's response also addressed Watts Bar's current method of compliance with multiple high impedance faults (MHIF) based on Appendix B-1 of NEI 00-01, Revision 2, and a TVA review of the electrical power systems credited for post fire safe shutdown.

The TVA response also concluded that the restoration procedures described in FPR Part III, Section 7.4 are not necessary and Section 7.4 of FPR Part III would be revised to clarify WBN's compliance with Appendix B-1 of NEI 00-01. However, the revised FPR section does not align with the RAI response.

The staff has the following follow-up questions:

1. The FPR includes reference to the restoration procedures and it appears that the information from the previous MHIF analysis remain in FPR Part III, Sections 7.4.1, 7.4.2 and 7.4.3. Resolve this discrepancy. Specifically, are restoration procedures needed and are do Sections 7.4.1, 7.4.2 and 7.4.3 relate to the current analysis?

2. The NRC staff identified the following anomalies in the FPR Part III, Section 7.4 Table:

   - The second row under Base Case Condition states: "Coordination must exist between the supply-side and overcurrent protective devices…"; Appendix B-1 of NEI 00-01(Page B.1-9) states: "For the power supply in question, electrical coordination must exist between the supply-side overcurrent protective device(s) and load-side overcurrent protective devices of concern." Provide a description that demonstrates that the Base Case Condition identified in the FPR Table meets the NEI 00-01 attribute. If not, provide a justification.

   - The second row under WBN compliance states: "Electrical protective devices for FSSD [fire safe shutdown] power sources are coordinated." Provide a discussion of the treatment of non-FSSD power sources that could affect FSSD power sources. If they haven't been analyzed, provide a justification..

   - The fourth row under WBN Compliance states: "Electrical coordination and protection calculations demonstrate adequate fault current protective devices are UL listed." Address the Base Case Condition that the power system must supply the necessary fault current for sufficient time to ensure predictable operation of the overcurrent protective devices.

   - The fifth row under WBN Compliance states: "The WBN electrical system design criteria, design documents and calculations demonstrate compliance. All credited overcurrent protective devices are UL Listed." Appendix B-1 of NEI 00-01 (Page B.1-9) also addresses equipment such as protective relays, low and medium voltage switchgear, etc., which may be designed and constructed in accordance with applicable ANSI and NEMA standards. Confirm that the above statement that all credited overcurrent protective devices are UL Listed. If all credited overcurrent protective devices are not UL listed, provide the appropriate listing or approved nationally recognized test laboratory.

- The sixth row under WBN Compliance states: “FSSD credits the Class 1E power supplies that are used for accident mitigation. Class 1E testing, inspection, maintenance, and configuration control are applicable.” Confirm that all overcurrent devices that require proper operation for FSSD are Class 1E. For those overcurrent devices that are not Class 1E, provide the testing, inspection, maintenance, and configuration control information.

Additionally, the NRC staff has the following additional question:

- Does the WBN MHIF compliance strategy meet all of the NEI 00-01, Appendix B-1 base case conditions? If not, provide a gap analysis that evaluates the elements where the base case conditions are not met.

Ensure that the FPR is aligned with the current analysis.