



Commonwealth Edison

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January 23, 1984

Mr. James G. Keppler, Regional Administrator
U.S. Nuclear Regulatory Commission
Region III
799 Roosevelt Road
Glen Ellyn, IL 60137

Subject: Byron Station Unit 1
IE Inspection Report No.
50-454/83-47 Supplemental Response
NRC Docket No. 50-454

- References (a): D. L. Farrar letter to J. G. Keppler
dated December 30, 1983
- (b): D. L. Farrar letter to J. G. Keppler
dated December 19, 1983
- (c): J. F. Streeter letter to Cordell Reed
dated November 18, 1983

Dear Mr. Keppler:

References (a) and (b) provided the Commonwealth Edison response to the Reference (c) IE Inspection Report. The purpose of this letter is to provide a supplemental response to Violation No. 4. As a result of discussions with Mr. Luis A. Reyes of your office concerning our Reference (b) response to Violation No. 4, we are providing a supplemental response which further addresses this issue. Although we continue to believe the intent of our FSAR commitments were being satisfied as stated in Reference (b), the Attachment to this letter is intended to provide the Region with additional assurance that our commitments are being met.

Please address any further questions concerning this matter to this office.

Very truly yours,

Dennis L. Farrar
Director of Nuclear Licensing

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ATTACHMENT
BYRON STATION UNIT 1
Supplemental Response to Alleged Violation No. 4

Violation 4

10 CFR 50, Appendix B, Criterion XI, states in part, "A test program shall be established to assure that all testing required to demonstrate that structures, systems, and components will perform satisfactorily in service is identified and performed in accordance with written test procedures which incorporate the requirements and acceptance limits contained in applicable design documents."

Table 14.2-6 of the Byron FSAR specifies that the acceptance criterion for the Reactor Protection Test be in accordance with Section 7.2 of the FSAR.

Contrary to the above, test procedure RP 68.10, "Reactor Protection Time Response" was not written to incorporate the acceptance limits contained in the applicable design document, in that not all of the reactor trips which are specified in Section 7.2 of the FSAR were included in the test procedure as Acceptance Criterion.

Discussion

Regarding testing procedures, and RP 68.10 "Reactor Protection Time Response" in particular, Section 14.2.3 of the FSAR requires individual test procedures to specify the acceptance criteria that will be fulfilled. FSAR Table 14.2-1 identifies the information typically provided in the individual test procedures including acceptance criteria which states that "acceptance criteria will consist of the appropriate standards against which the success or failure of the test may be judged". Table 14.2-6 of the B/B FSAR states that the acceptance criteria for the Reactor Protection preoperational test is "The reactor protection system operates in accordance with Section 7.2."

Section 7.2.1.2.4 of the B/B FSAR provides the limits, margins and setpoints for the Reactor Trip System (RTS) that are considered to be the design basis of the RTS by specifically referring to the Chapter 16 Technical Specifications. These parameter values requiring reactor trip are given in the Chapter 16 Tech Specs and are consistent with the Chapter 15 Accident Analyses. The Chapter 16 Tech Specs, Table 3.3-2 requires response times for only certain of the reactor trip instrumentation channels. As stated in the associated Bases for these LCOs and Surveillance Requirements, "The measurement of response time at the specified frequencies provides assurance that the Reactor trip and the Engineered Safety Features actuation associated with each channel is completed within the time limit assumed in the safety analyses. No credit was taken in the analyses for those channels with response times indicated as not applicable." Therefore, we believe that an acceptance criteria for reactor trips that include only the response times listed in Table 3.3-2 of the Tech Specs is sufficient for RP 68.10 to assure that the reactor trip actuation is completed within the time limit assumed in the Chapter 15 safety analyses. We believe that it is unnecessary to include additional response times within RP 68.10 as additional acceptance criteria "against which the success or failure of the test may be judged".

However, as a matter of good practice, the test objective section of RP 68.10 does include all reactor trips discussed in Section 7.2. Response times for the reactor trip instrumentation channels not listed as acceptance criteria in RP 68.10 have expected values in the test. The Commonwealth Edison Company Project Engineering Department (PED) will review the test results obtained for those reactor trips listed in RP 68.10 (that do not include acceptance criteria) against the expected values. This review and any resultant discrepancies will be resolved as provided for in the recent change to the Byron Startup Manual (Revision 17 dated 1-16-84) discussed in our response to Violation No. 3 of the subject Inspection Report.

In our judgement, the combination of 1) acceptance criteria as response times for those reactor trips assumed in the safety analyses, and 2) the PED review of "expected values" for the remaining reactor trips are sufficient to demonstrate that "The reactor protection system operates in accordance with Section 7.2" as intended by the commitment in the B/B FSAR in Table 14.2-6.