

NRC AFW SPECIAL INSPECTION
REQUEST FOR INFORMATION

Question # 9	Inspector O'Brien	Date 11/06/02
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Question: (a) When was QA to non-QA boundary extended beyond the recirc AOV? In 1988 mod, the QA boundary was at the AOV. (b) Should the DP switch to the AOV air control be SR? (3) On M-217 Sh 1, Is the line from DPIS-4002 to 2AF-4002-S safety-related? It is indicated as AQ.

Response:

a) The QA boundary was extended in November of 1996 under Q-List Discrepancy 96-058 (copy attached). The change was due to a recognition of the safety related functions to prevent pump runout and to ensure adequate backpressure to provide forward feed capability. These are correct assertions, and the level of documentation provided is consistent with the plant practices at the time.

Concurrent with the Q-List upgrade, a Drawing Change Request (DCN 96-2512; attached) was issued against the Green Line Drawing (GLD M-217 Sht 1; a non-QA document) to show the line from the recirc isolation valve through the flow limiting orifice as a Safety Related line. No explanation was provided other than "Administrative Correction". A check of all DBD Open Items for that DBD found no mention of a concern or open item against the GLD. However, the concurrent timing and a signature in common between this document change and the Q-list change supports indicates they had the same origin.

b) The dP switches to actuate the recirculation flow isolation AOVs are Safety Related as reflected in both CHAMPS and the GLD. Attached are printouts of the CHAMPS database with the safety related classifications highlighted. Note that this was a question asked and answered by the Red Finding investigation team in ~August 2002.

c) Investigation into this question resulted in finding a considerably more complicated power and logic scheme than is apparent from the P&ID. Actuation schemes are attached. While the power to the solenoid valve is Safety Related DC power, the power is applied through an interposing AC relay. While that relay and it's power supply are not specifically designated Safety Related, they are powered from a diesel-backed AC power supply. This appears to have been an error in the scope of the modification to upgrade the function of the AOV to open to a Safety function. CAP 30040 has been originated to document this deficiency, and to track resolution. Currently, none of the AFW recirculation lines are credited with functioning under any conditions (due to line blockage concerns). Before these lines can be considered fully Operable, this issue will also have to be resolved.

Prepared By _____ T. C. Kendall _____ Date _____

Reviewed by Licensing _____ *[Signature]* _____ Date 11/07/02

Provided to NRC By _____ Date _____

[Handwritten Signature]