UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

JUN 6 1979

MEMORANDUM FOR: T. Ippolito, Chief, Operating Reactors Branch #3, Division of Operating Reactors

FROM: G. Lainas, Chief, Plant Systems Branch, Division of Operating Reactors

SUBJECT: BROWNS FERRY UNITS 1, 2 AND 3 - ENVIRONMENTAL QUALIFICATION OF STEAM MOUNTED LIMIT SWITCHES ON MSLIV's (IE BULLETIN 79-01)

In connection with their response to IE Bulletin 79-01, TVA has reported that the stem mounted limit switches on the MSLIV's which provide input to the RPS are not qualified for an accident (e.g. LOCA) environment. (Ref. TVA letters dated February 23, 1979 and March 9, 1979 and Telecon dated May 17, 1979). TVA has stated that these limit switches need not be environmentally qualified for an accident environment for the following reasons and, therefore, will not be replaced with qualified switches.

1. The switches are not needed to mitigate any accident or transient including a fast closure of the MSIV's. No credit has been taken for these limit switches in the analyses provided in the FSAR.

2. The switches do not have any control function and are isolated from all control circuits and the RPS by an interposing relay.

3. The only possible deleterious effect of a failure would be a loss of the position indication derived from the limit switches.

We have reviewed the information provided by TVA and have concluded that the following conditions must be satisfied if the unqualified limit switches are not replaced.

1. An analysis must be provided (or a reference if it has previously been provided) to show that the MSLIV closure input to the RPS is not required to mitigate the consequences of a closure of three or more MSLIV's. Such an analysis does not appear to be included in the FSAR.

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2. Schematic diagrams must be provided which show all circuits with inputs from the unqualified limit switches and the interposing relay isolating the limit switches from the RPS so that we can verify that the switches do not have any safety function and that they are adequately isolated from the RPS. (Note: The isolation relay and circuit must be Class IE).

3. An environmentally qualified method of determining MSLIV position from the control room must be provided and the indication devices with input signals derived from the unqualified limit switches must be clearly identified with a permanent tag which: (1) states that they should not be relied on for position indication except during normal operation; and (2) provides a reference to an instrument located in the control room which should be relied on during transient or accident conditions.

Please inform the licensee of our position and request that they provide the information identified above and make any modifications necessary to satisfy these conditions if they do not elect to replace the unqualified limit switches.

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