



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

TERA

April 16, 1981

Docket No. 50-285

Mr. W. C. Jones  
Division Manager, Production  
Operations  
Omaha Public Power District  
1623 Harney Street  
Omaha, Nebraska 68102



Dear Mr. Jones:

In a continuing review of open licensing actions on power reactors, the staff has resumed the evaluation of the Reactor Protection System (RPS) inoperable channel condition for the Fort Calhoun Station. This item was initiated by our letter to you dated December 7, 1977 which requested your review of the Technical Specification (TS) requirements for operation with an inoperable RPS channel and asked that you either apply for a TS change to require placing an inoperable channel in the tripped condition within one hour or request a NRC review of your existing system.

By letter dated January 31, 1978, you submitted the bases for continued operation of the Fort Calhoun Station with an inoperable RPS channel in the bypassed condition for an unlimited time period. In this condition, the RPS logic is changed from a 2-out-of-4 to a 2-out-of-3 logic. On August 2, 1978, a meeting was held to clarify our position on this subject and to gain an understanding of the licensee's position. Enclosure 1 is the minutes of the August 2, 1978 meeting.

This review has been expanded to include the Engineered Safety Features Actuation System (ESFAS) since a preliminary review indicates a similar problem exist with the TS for ESFAS operability requirements.

Long term operation of a four channel RPS and ESFAS in a 2-out-of-3 logic configuration would be acceptable provided all four channels are sufficiently independent. However, in order for us to make such a finding, we require elaboration of the independence of the four channels in each system. Therefore, we request that you provide, within 90 days of your receipt of this letter, the results of your investigation into the adequacy of both physical and electrical separation to determine channel independence of the four sensing channels. This investigation should include separation of the parameter sensors, transmitters and cable runs from the transmitters to the RPS and ESFAS cabinets in the control room. Channel independence within the cabinets and other enclosures which house the plant protection system should also be reviewed.

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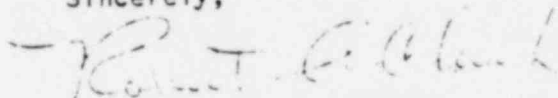
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As you know, our staff conducted an on-site RPS review at the Calvert Cliffs and St. Lucie units. A copy of the resultant Safety Evaluation for St. Lucie, presenting the finding of the RPS review (pages 3 to 5), is provided for your information as Enclosure 2. Our conclusion was that allowing indefinite bypass of one of the four RPS is not justified, but since the four channel CE system does have some independence, bypassing for 48 hours during testing or maintenance of one RPS channel is justified.

As an alternative to the requested review of RPS and ESFAS channel separation, we will consider issuance of the Calvert Cliffs and St. Lucie type TS for your RPS and ESFAS if you provide an application including documentation of design similarity to those of Calvert Cliffs and St. Lucie. Enclosure 3 provides sample TS for your use. Any such application should be submitted within the same 90 days of your receipt of this letter.

If you have questions on this subject, please contact your NRC Project Manager.

Sincerely,



Robert A. Clark, Chief  
Operating Reactors Branch #3  
Division of Licensing

Enclosures:

1. Minutes of meeting
2. Safety Evaluation for  
St. Lucie
3. Calvert Cliffs TS

cc: See next page

Omaha Public Power District

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