

Omaha Public Power District

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February 16, 1983

LIC-83-044

Mr. Robert A. Clark, Chief
U. S. Nuclear Regulatory Commission
Office of Nuclear Reactor Regulation
Division of Licensing
Operating Reactors Branch No. 3
Washington, D.C. 20555

Reference: Docket No. 50-285

Dear Mr. Clark:

Safety Evaluation Report (SER) for
Environmental Qualification of
Safety-Related Electrical Equipment

The Commission's letter dated January 11, 1983 transmitted the subject SER and its attached Technical Evaluation Report (TER) to the Omaha Public Power District. The SER requested the District reaffirm justification for continued operation and submit information on items in the TER which no justification has been previously submitted.

The District has reviewed the TER and has concluded that continued operation of the Fort Calhoun Station does not present undue risk to the public health and safety. The District hereby reaffirms justification for the continued operation of TER Items 1 through 114.

As requested by the Commission's letter, items in NRC categories 1A, 2A, and 2B of the TER for which previous justification for continued operation has not been submitted were identified. Ten such items were noted by the Franklin Research Center in the TER. The following is a list of the TER numbers of the ten items:

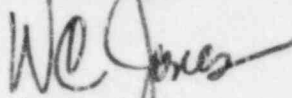
<u>TER Item No.</u>	<u>Category</u>
8	2A
9	2A
10	2A
11	2A
12	2A
13	2A
14	2A
20	2A
91	2A
97	2A

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In accordance with the request of the SER, additional information regarding these items has been prepared for submittal. This submittal constitutes the District's response to this request and is attached.

Sincerely,



W. C. Jones
Division Manager
Production Operations

WCU/TLP:jmm

Attachment

cc: LeBoeuf, Lamb, Leiby & MacRae
1333 New Hampshire Avenue, N.W.
Washington, D.C. 20036

Mr. L. A. Yandell, Senior Resident Inspector

ATTACHMENT

Position #1

Continued operation of Fisher Model 304 limit switches (TER Items 8-13) is justified.

Response

The Fisher Model 304 limit switches involved in TER Items 8 through 13 function to provide valve position indication only. Failure of the Model 304 poses no safety hazard since failure will not jeopardize operability, control, or the fail-safe function of the associated valve. This valve position can also be determined by checking other parameters.

In the past, a detailed safety analysis of Model 304 limit switches in containment was performed and submitted to the NRC, which demonstrated continued operation was justified even if the switches failed. The switches involved in TER Items 8 through 13 are located in rooms of the auxiliary building subjected to a less severe accident environment than the containment. The effects of radiation and temperature on the auxiliary building limit switches are spread over a longer duration and are much less severe than the rapid, high-intensity parameters experienced by the containment switches; they are not expected to fail under LOCA conditions.

The Fisher Model 304 limit switches are scheduled to be tested for qualification purposes. Should they not qualify, they will be replaced. However, in the interim, based upon the less severe environment, alternatives available to the operator, and the fact that failures do not present a safety hazard, it is the District's position that continued operation is justified.

Position #2

Lack of justification for TER Item 14 has been resolved.

Response

TER Item 14 concerned Fisher Model 304 limit switches located in Room 81. The ten switches in question were all replaced by fully qualified NAMCO EA-180 limit switches. SCEWS 6-5, 6-95, and 6-102 included with the District's letter dated November 5, 1982 (revision to the 79-01B submittal) incorporated information on the existing equipment.

Position #3

Lack of justification for the continued use of TER Item 20 has been resolved.

Response

TER Item 20 concerned NAMCO Model D2400X limit switches located in Room 21. The two switches in question were replaced by fully qualified NAMCO EA-180 limit switches. SCEW 6-65 included in the District's November 5, 1982 revision to the 79-01B submittal incorporates the existing equipment.

Position #4

Continued operation of TER Item 91 is justified.

Response

TER Item 91 concerns Amp Catalog No. 321280 cable splices located in containment. Wyle Laboratories performed the Environmental Qualification Evaluation of these splices. Due to a lack of accident test data, Wyle Laboratories concluded that these cable splices do not fully qualify in accordance with DOR Guidelines of IE Bulletin 79-018. The District concurs with Wyle Laboratories' opinion (Wyle Report No. 26333-26) that from an engineering and analysis point of view, the splices are capable of safe operation before, during, and after a LOCA for the time period required to operate. Based upon this opinion, the District's judgment is that continued operation is justified.

Position #5

Justification exists for the continued operation of States terminal blocks (TER Item 97).

Response

Qualification of these blocks was deemed lacking by the Franklin Research Center because similarity between the test specimen and the actual equipment in use was not demonstrated. This problem arose from the District's submittal of qualification documentation which identified the terminal blocks as States Models M25014, M25016, M25018, and M25112. However, the District feels this concern is unwarranted because the States terminal blocks in use are, in fact, Type NT. (Verification of this fact can be found by referring to the vendor's catalog.)

States Type NT terminal blocks were subjected to LOCA conditions and performed satisfactorily (Plant-Specific Reference #10 of the TER). A materials analysis was performed to determine radiation and chemical spray qualification. This was submitted as Enclosure 10 of the November 5, 1982 submittal. Results of this analysis showed spray and radiation effects would not prevent the terminal blocks from performing their design function. Aging analysis was also performed for the District by Wyle Laboratories. The Wyle Laboratories Report #26333-29 demonstrates that the qualified life of the equipment exceeds 40 years. In addition to these qualifications, the Type NT terminal blocks installed are enclosed in junction boxes of NEMA 12 rating and are covered with Dow Corning 3144 or 3145 RTV.

It is the District's judgment that the qualification documentation plus the additional conservatism supplied by the junction box and RTV make States Type NT terminal blocks capable of safe operation. Their continued use is therefore justified.