



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

PDR

December 12, 1978

MEMORANDUM FOR: Roger Matteson, Director
Division of Systems Safety, NRR

Victor Stello, Director
Division of Operating Reactors, NRR

FROM: Bernie Snyder, Assistant Director for *Bernie*
Policy Review, OPE

SUBJECT: UCS Petition for Reconsideration - Electrical Equipment

Additional questions have come up regarding the environmental qualifications of electrical equipment. I would appreciate your response to the following:

1. To what degree has the staff relied on probability analysis when it states on page 36, Appendix B to the December 15, 1977 staff memo, that one of the reasons that no immediate action is required is that "the likelihood of a major accident requiring the performance of this equipment is very low."
2. Item 17 (page 40) of Enclosure 1 of the staff's August 31, 1978 memo does not appear to address the UCS statements as requested. It appears from the staff's response that D.C. Cook was permitted to operate prior to complete demonstration for all environmental qualification. If this is so, on what basis was this decision made? Was such operation without complete environmental justification consistent with the Commission's regulations? Is the following statement in the April 13 Order on page 25, footnote 25 correct:

"As a pre-condition for initial operation, the staff required the licensee to document adequate environmental qualification of numerous electrical components, including connectors and terminal blocks."

Have other plants been permitted to initiate operation prior to full environmental qualification? If so, please identify those plants and explain. Also, has full environmental qualification now been provided?

3. Please furnish an updated response to Item 2 of Enclosure 1 of the staff's August 31 letter addressing the further results of the staff's ongoing review. Can the staff now fully respond to the question?

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4. Page 12 of the Commission's April 13, 1978 Memorandum and Order states:

"Fundamental to NRC regulation of nuclear power reactors is the principle that safety systems must perform their intended functions in spite of the environment which may result from postulated accidents. (The controlling regulation here is 10 CFR 50, Appendix A, General Design Criterion 4.) For example, if an electrical component is required to function in a safety system which was designed to mitigate the consequences of certain accidents, that component must perform its intended function for postulated accidents such as: (a) loss-of-coolant accident (LOCA), (b) main stream line break (MSLB), or (c) failure of any other high-energy confining system."

Is there any inconsistency between that statement and the staff's conclusion that no regulation was violated by the licensees which installed unqualified equipment because the licensees were under no such requirement? Please elaborate.

5. Are all licensees now under a duty or commitment to have full environmental qualification for their electrical equipment so that any failure to have such qualification could result in an enforcement action?

6. The July 6, 1978 response in Item 11, Enclosure 1 stated that the staff continues to believe that adequate protection for the public health and safety exists despite the six plant shutdowns. Does the staff believe that some plants in operation use equipment which will fail when exposed to design basis event conditions? What is the basis for the staff's judgment?

cc: Chairman Hendrie
Commissioner Gilinsky
Commissioner Kennedy
Commissioner Bradford
Commissioner Ahearne
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UCS
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