AUG 12 1971

P. A. Morris, Director
Division of Reactor Licensing

QUESTIONS RELATING TO INSTRUMENTATION AND EMERGENCY POWER; R. E. GINNA NUCLEAR POWER PLANT UNIT NO. 1; DOCKET NO. 50-244

In accordance with our understanding that the applicant will respond to verbal questions by means of a voluntary written submittal or orally, as requested, we discussed the following questions with him during the July 29 meeting:

1. Does the "low water level" instrumentation at the concentrated boric acid storage tanks satisfy the single failure criterion?

2. Describe the modifications made to the pressurizer level-measuring instrument system.

3. To what extent did the disabling of specific d-c circuits of one ESF logic train at a time during pre-op testing verify the mutual electrical independence between the trains?

4. What provisions are there for detecting loss of a battery charger?

5. Verify the adequacy of your post-accident monitoring instrumentation.

6. Does the offsite portion of the emergency power system satisfy GDC 17?

7. Describe the modifications made to the rod-control motor generator sets subsequent to the damaging short-circuit experienced during operation.

The applicant plans to respond to Questions 1, 2 and 3 orally during a forthcoming schematic diagram review meeting, and to Questions 4, 5 and 6 with a written submittal. Question 7 has been satisfactorily resolved by telephone. This is acceptable to us.

In order to complete our review we will need information in the area of environmental testing. We, therefore, ask that you transmit the following additional questions to the applicant and request a written response.

1. State the seismic design criteria for the reactor protection system, engineered safety feature circuits, and the emergency power system. The criteria should address: (a) the capability to initiate a protective action during the design basis earthquake, and (b) the capability of the engineered safety feature circuits to withstand seismic disturbances during post-accident operation. Describe the qualification testing or analyses which assure that the criteria have been satisfied.

2. For electrical and mechanical equipment of the reactor protection system and engineered safety features located in the primary containment or elsewhere in the plant, state the design criteria which take into account the potential effects on these components of radiation resulting from both normal operation and accident conditions superimposed on long-term normal operation. Describe the analysis and testing performed to verify compliance with these design criteria.

3. Identify all safety related equipment and components (e.g., motors, cables, filters, pump seals) located in the primary containment which are required to be operable during and subsequent to a loss of coolant accident or a steamline break accident. Describe the qualification tests which have been or will be performed on each of these items to assure their performance in a combined high temperature, pressure, and humidity environment.

Original Signed By
E. G. Case

ESB-72
DRS:ESB:DFS

Edson G. Case, Director
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Form AEC-318 (Rev. 9-53) AECM 0240 ☆ U.S. GOVERNMENT PRINTING OFFICE: 1970—407-758