



UNITED STATES  
 ATOMIC ENERGY COMMISSION  
 WASHINGTON, D.C. 20545

DEC 13 1974

Docket No. 50-206

Southern California Edison Company  
 ATTN: Mr. Jack B. Moore  
 Vice President  
 2244 Walnut Grove Avenue  
 Post Office Box 800  
 Rosemead, California 91770

Gentlemen:

In our letter of August 8, 1972, we requested that you determine whether the failure of any non-Category I (seismic) equipment could result in flooding or release of chemicals that could jeopardize safe shutdown of the facility. In reviewing your response of October 5, 1972, we have determined that additional information is required to complete our review. Therefore, you are requested to review your previous response and San Onofre, Unit 1, using the enclosed guidelines, and supply the additional indicated information. As in the initial review, this review should determine whether the failure of any non-Category I equipment could result in a condition, such as flooding or the release of chemicals, that might affect the performance of safety related equipment required for safe shutdown of the facility or to limit the consequences of an accident. Your review should include the following systems (if applicable):

- |                                |                           |
|--------------------------------|---------------------------|
| Service Water                  | Demineralized Water       |
| Condensate                     | Drains                    |
| Feedwater                      | Heating Boiler Condensate |
| Reactor Building Cooling Water | Makeup                    |
| Turbine Building Cooling Water | Potable Water             |
| Circulating Water System       | Fire Protection System    |

If your review identifies systems or components that require changes in your plant, submit the results of your analyses regarding the changes, a description of the required changes (including appropriate drawings and sketches), and schedule for completion of the changes. Where temporary protective measures are to be taken to protect equipment or systems important to safety, submit your analysis, description, and justification for these measures and your installation and test schedule.

*10/18/74 - Orig. to A. Aronov  
 cc to Jack B. Moore  
 D. J. Fogarty  
 O. J. Ortega  
 K. P. Baskin  
 C. G. Tolman*

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Southern California Edison  
Company

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Your response for temporary protective measures should be submitted as soon as practicable but in not more than 30 days. Other requested information and the results of your review should be submitted within 60 days. It is expected that all required corrections will be performed as expeditiously as is practicable.

Please provide the above information in three signed originals and thirty-seven (37) additional copies.

Sincerely,



Robert A. Purple, Chief  
Operating Reactors Branch #1  
Directorate of Licensing

Enclosure:

Guidelines for Review of Non-Category I  
Systems Whose Failure Could Cause  
Flooding of Safety Related Equipment

cc w/enclosures:

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GUIDELINES FOR  
REVIEW OF NON-CATEGORY I  
SYSTEMS WHOSE FAILURE COULD CAUSE  
FLOODING OF THE REACTOR  
ROOM

1. Separation for redundancy - single failures of non-Category I system components or pipes shall not result in loss of a system important to safety. Redundant safety equipment shall be separated and protected to assure operability in the event a non-Category I system or component fails.
2. Access doors and alarms - watertight barriers for protection from flooding of equipment important to safety shall have all access doors or hatches fitted with reliable switches and circuits that provide an alarm in the control room when the access is open.
3. Sealed water passages - passages or piping and other penetrations through walls of a room containing equipment important to safety shall be sealed against water leakage from any postulated failure of non-Category I water systems. The seals shall be designed for the SSE, including seismically induced wave action of water inside the affected compartment during the SSE.
4. Category I watertight structures - walls, doors, panels, or other compartment closures designed to protect equipment important to safety from damage due to flooding from a non-Category I system rupture shall be designed for the SSE, including seismically induced wave action of water inside the affected compartment during the SSE.
5. Water level alarms and trips - rooms containing non-Category I system components and pipes whose rupture could result in flood damage to equipment important to safety shall have level alarms and pump trips (where necessary) that alarm in the control room and limit flooding to within the design flood volume. Redundancy of switches is required. Critical pump (i.e., high volume flow, such as condenser circulating water pumps) trip circuits should meet IEEE 279 criteria.
6. Category I equipment should be located or protected such that rupture of a non-Category I system connected to a tower containing water or body of water (river, lake, etc.) will not result in failure of the equipment from flooding.
7. The analysis shall consider simultaneous loss of offsite power with the rupture of a non-Category I system component or pipe.