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Docket No. 50-206

SEP 12 1979

Mr. James H. Drake
Vice President
Southern California Edison Company
2244 Walnut Grove Avenue
Post Office Box 800
Rosemead, California 91770

Dear Mr. Drake:

RE: STEAM GENERATOR WATER HAMMER - SAN ONOFRE, UNIT 1

In response to our letter of September 2, 1977, regarding steam generator water hammer at San Onofre, Unit 1, you indicated that, based on your operating experience, modifications were not necessary to further reduce the probability or consequences of steam generator water hammer at your facility. Although your operating history does not show that such water hammer has occurred in your present piping arrangement, we require further assurance that steam generator water hammer will not occur in the future and that surveillance procedures would be adequate to detect water hammer or damage from water hammer if it were to occur.

Your response to the enclosed request for additional information, together with previously supplied information, will provide a bases for a determination regarding the need for modifications to your feedwater system to prevent steam generator water hammer. Your response is needed within 60 days so that we may maintain our schedule for evaluating the potential for water hammer at your facility.

Sincerely,

Original signed by
Dennis L. Ziemann

Dennis L. Ziemann, Chief
Operating Reactors Branch #2
Division of Operating Reactors

Enclosure:
Request for Additional Information

7910040 413

Appls KTS

OFFICE	DOR:ORB #2	DOR:ORB #2			
SURNAME	cc w/enclosure: See next page ABurger:ah	DLZiemann			
DATE	9/12/79	9/12/79			

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cc w/enclosure:
Charles R. Kocher, Assistant
General Counsel
Southern California Edison Company
Post Office Box 800
Rosemead, California 91770

David R. Pigott
Samuel B. Casey
Chickering & Gregory
Three Embarcadero Center
Twenty-Third Floor
San Francisco, California 94111

Jack E. Thomas
Harry B. Stoehr
San Diego Gas & Electric Company
P. O. Box 1831
San Diego, California 92112

U. S. Nuclear Regulatory Commission
ATTN: Robert J. Pate
P. O. Box 4167
San Clemente, California 92672

Mission Viejo Branch Library
24851 Chrisanta Drive
Mission Viejo, California 92676

REQUEST FOR ADDITIONAL INFORMATION
ON STEAM GENERATOR WATER HAMMER
SAN ONOFRE, UNIT 1
DOCKET NO. 50-206

1. Provide information that demonstrates that the feedwater system and steam generator water level at your facility have been subjected to those transient conditions that are conducive to water hammer, i.e., the addition of cold feedwater or auxiliary feedwater to steam-filled feedwater piping and feedring. See NUREG 0291 Page 4 that was forwarded to you on September 2, 1977. Include the following:

   1.1 Describe the expected behavior of steam generator water level as a result of reactor trip from power levels greater than 30% of full power. Include actual plant measurements of steam generator level and other available related data such as feedwater flow and auxiliary feedwater flow.

   1.2 Provide the number and causes of loss of feedwater events during the operational history of the plant. You may refer to material submitted previously.

   1.3 Provide the number and causes of loss of off-site power events during the operational history of the plant.

2. If administrative controls have been adopted to limit the flow of auxiliary feedwater for the purpose of reducing the probability of water hammer, show when they were adopted and give the answers to items 1.1, 1.2 and 1.3 for before and after such controls were established.

3. If administrative controls have been adopted to limit the flow of auxiliary feedwater for the purpose of reducing the probability of water hammer, show that an adequate water inventory and flow will be maintained to accommodate all postulated transient and accident conditions.

4. If auxiliary feedwater flow in your facility is not at present initiated automatically for normal and accident events, present your evaluation of whether automating the actuation of auxiliary feedwater might increase the probability of inducing steam generator water hammer. One of the signals that would automatically initiate the flow of auxiliary feedwater would be the steam generator low water level. This set point should be above the top of the main feedwater sparger to reduce the probability of steam generator water hammer.

5. Describe the means that will be used to monitor for the occurrence of steam generator water hammer and possible damage from such an event. Include all instrumentation that will be employed. Describe the inspections that will be performed and give the frequency of such inspections.

6. Describe the reporting procedures that will be used to document and report water hammer and damage to piping and piping support systems. Such reports were requested in our letter to you dated September 2, 1977.