April 2, 1982

Docket No. 50-206 LS05-82-04-009

> Mr. R. Dietch, Vice President Nuclear Engineering and Operations Southern California Edison Company 2244 Walnut Grove Avenue Post Office Box 800 Rosemead, California 91770

Dear Mr. Dietch:

SUBJECT: SAN ONOFRE UNIT 1 - SYSTEM RESPONSE AND STRUCTURAL CONCERNS

The NRC staff is evaluating the response of the San Onofre Unit 1 to several events as a part of ongoing staff reviews. Several concerns have arisen relating to the capability of this facility to accomodate a steam line break. The NRC staff has also identified concerns regarding the nonlinear inelastic time history analysis methodology used for the evaluation and qualification of masonry walls at San Onofre Unit 1, and the schedule for the seismic upgrading of the facility. These concerns are discussed below.

#### Main Steam Line Break Analysis

There are many possible steam line break locations in the San Unofre Unit 1 piping that will result in the blowdown of all three steam generators. The staff's concerns regarding this issue include the method of removing decay heat following a postulated steam line break, the effect of the addition of cold auxiliary feedwater on the hot internals of the steam generator, and the possibility that a seismic event that induces failure (collapse) of the east feedwater heater platform could rupture extraction steam lines that run under the platform and also potentially fail the safety DS4 45E (08) injection piping that runs under this platform.

SEO

The need for modifications to the east feedwater platform to upgrade its seismic capacity have been identified and we expect that the completion of these modifications will be made by January 1, 1983, unless adequate justification for continued operation beyond this date is provided and accepted by the NRC staff. You provided some information related to this issue in your letter of February 2, 1982. In addition, the steam line break issue was the subject of a meeting held with your representatives on March 2, 1982.

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## Analysis of Masonry Walls

Your submittals of January 11 and January 15, 1982 describe your methodology for a non-linear inelastic time history analysis of the masonry walls at San Onofre Unit 1. At a meeting on January 20, 1982, your representatives discussed this methodology with the staff. Our letter dated February 17, 1982 stated that, at this point in time, we cannot accept your proposed analytical methodology as the sole basis for evaluation and qualification of the masonry walls. We are evaluating your response dated March 15, 1982.

#### Seismic Upgrading Schedule

By your letter of November 3, 1981, you committed to complete the seismic analysis of structures important to safety by January 31, 1982. However, by your letter of February 9, 1982, you informed us of a slip in that date for the completion of the analyses to April 30, 1982.

Due to delays in the completion of analyses, it appears that the schedule for completion of the remaining analyses and implementation of modifications by January 1, 1983 will not be met and we have not received justification for continued operation beyond this date.

As a result of the above concerns, the staff requires that you provide the following information in writing under oath or affirmation by April 30, 1982 pursuant to 10 CFR 50.54(f) to enable the Commission to determine whether or not your license should be modified, suspended or revoked:

- 1. Information and commitments necessary to satisfactorily resolve the steam line break issue, including the adequacy of (a) steam line isolation provisions, (b) decay heat removal capability, and (c) component integrity. If it appears that this issue cannot be resolved prior to the startup from the current outage, provide your schedule for resolution and your justification for continued operation of your facility following the current outage while the steam line break issue is being resolved.
- 2. Information and commitments necessary to satisfactorily resolve the masonry wall issue. The three principal safety concerns associated with the masonry walls are: (1) gross failure of walls and their effect on safety related equipment, (2) the effect of large displacements in walls (predicted by your analysis) upon safety related equipment attached to or penetrating walls, and (3) the effect of missiles from any spalling which may occur if walls are not upgraded to remain fully elastic under postulated seismic loadings. If it appears that this resolution cannot be achieved prior to startup from the current outage, provide your schedule for resolution and your

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be delayed.

3. A description of actions taken to ensure that schedules in your November 3, 1981 letter for completion of seismic analyses of components and systems will not

4. Your current schedule for meeting your commitment to complete the seismic upgrading of San Onofre Unit 1, including the East Feedwater Heater Platform and the South Turbine Building Extension, by January 1, 1983. If all the required modifications cannot be completed by January 1, 1983, provide your schedule for completion and your justification for continued operation until the modifications are completed.

The staff will consider the answers to this request for information in determining whether your license to operate San Onofre Unit 1 should be modified, suspended or revoked.

Sincerely,

Original signed by Darrell G. Eisenhug Darrell G. Eisenhut, Director Division of Licensing

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April 2, 1982

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- 3. A description of actions taken to ensure that schedules in your November 3, 1981 letter for completion of seismic analyses of components and systems will not be delayed.
- 4. Your current schedule for meeting your commitment to complete the seismic upgrading of San Onofre Unit 1, including the East Feedwater Heater Platform and the South Turbine Building Extension, by January 1, 1983. If all the required modifications cannot be completed by January 1, 1983, provide your schedule for completion and your justification for continued operation until the modifications are completed.

The staff will consider the answers to this request for information in determining whether your license to operate San Onofre Unit 1 should be modified a suspended a constraint.

Sincerely,

Gus C. Lainas, Assistant Director for Safety Assessment Division of Licensing

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- 3. Your commitment to complete the seismic upgrading of San Onofre Unit 1, including the East Feedwater Heater Platform and the South Turbine Building Extension, by January 1, 1983. If all the required modifications cannot be completed by January 1, 1983, provide your schedule for completion and your justification for continued operation until the modifications will be completed.
- A description of actions taken to ensure that schedules in your November 3, 1981 letter for completion of seismic analyses of components and systems will not be delayed.

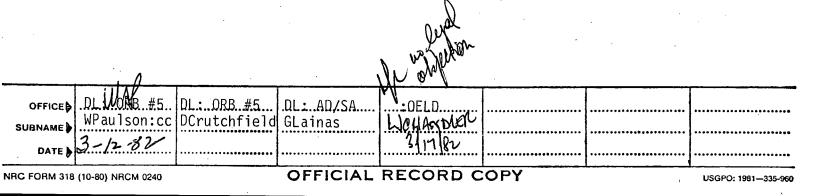
Sincerely,

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Dennis M. Crutchfield, Chief Operating Reactors Branch #5 Division of Licensing

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David R. Pigott Orrick, Herrington & Sutcliffe 600 Montgomery Street San Francisco, California 94111

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

Resident Inspector/San Onofre NPS c/o U. S. NRC P. O. Box 4329 San Clemente, California 92672

# Mayor City of San Clemente San Clemente, California 92672

Chairman Board of Supervisors County of San Diego San Diego, California 92101

California Department of Health ATTN: Chief, Environmental Radiation Control Unit Radiological Health Section 714 P Street, Room 498 Sacramento, California 95814

U. S. Environmental Protection Agency Region IX Office ATTN: Regional Radiation Representative 215 Freemont Street San Francisco, California 94111

Robert H. Engelken, Regional Administrator Nuclear Regulatory Commission, Region V 1450 Maria Lane Walnut Creek, California 94596