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November 3, 1989

U. S. Nuclear Regulatory Commission
Attention: Document Control Desk
Washington, D.C. 20555

Gentlemen:

Subject: Docket Nos. 50-206, 50-361 and 50-362
Generic Letter 88-20, "Individual Plant Examination (IPE) for Severe Accident Vulnerabilities"
San Onofre Nuclear Generating Station
Units 1, 2 and 3

Enclosed is our response to the subject Generic Letter. The Generic Letter specifically requested that we: 1) identify the method and approach for performing the IPE; 2) describe the method if it has not been previously submitted for staff review; and 3) identify milestones and schedules for performance of the IPE. This information is included in the enclosure.

We plan to meet the requirements for an IPE by performing level 1 Probabalistic Risk Assessments (PRAs) and evaluating containment performance and the in-containment behavior and release of fission products to the environment. One IPE will be performed for San Onofre Unit 1 and one for San Onofre Units 2 and 3. We currently have significant internal experience in the performance of PRAs but are increasing our staffing and training to fully meet the requirement for utility staff involvement. The increase in staffing and training and our desire to have a quality document which can continue to be useful after submittal to the NRC will require

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that a deliberate and consistent pace be established for this work. Therefore, our schedule for submittal reflects full use of the three years allowed for this work.

If you require additional information, please contact me.

Respectfully submitted,

By: R M Rosenblum

Subscribed and sworn to before me this 3rd day of November, 1989.

Carol A. Gomez

Notary Public in and for the
State of California

OFFICIAL SEAL
CAROL A. GOMEZ
NOTARY PUBLIC - CALIFORNIA
LOS ANGELES COUNTY
My Comm. Expires Feb. 26, 1993

cc: J. B. Martin, Regional Administrator, NRC Region V
C. Caldwell, NRC Senior Resident Inspector,
San Onofre Units 1, 2 and 3

ENCLOSURE

RESPONSE TO GENERIC LETTER 88-20
INDIVIDUAL PLANT EXAMINATION FOR SEVERE ACCIDENT VULNERABILITIES

Southern California Edison Company (SCE) has a program of Probabilistic Risk Assessment (PRA) development and application for San Onofre Nuclear Generating Station (SONGS), Units 1, 2 and 3. The program has been ongoing for several years and when complete will meet the requirements and objectives of Generic Letter 88-20. This letter summarizes the program currently underway and provides a commitment for the completion of the program for SCE to meet the requirements of the generic letter.

SCE'S PRA Program

SCE's PRA program involves a systematic examination consistent with state-of-the-art PRA methods and the objectives of Generic Letter 88-20 and NUREG-1335, "Individual Plant Examination: Submittal Guidance." Through the performance of this examination, SCE is fulfilling a number of objectives including the following:

- Examining, in an integrated manner, the overall safety and reliability of the nuclear unit;
- Providing assurance that the plant is designed and operated consistent with the highest objectives of safety and excellence;
- Identifying plant-specific vulnerabilities and evaluating potential enhancements where appropriate;
- Developing an appreciation of severe accident behavior and the most likely plant accident sequences; and
- Developing a quantitative understanding of the overall core damage probability and fission product release.

Generic Letter 88-20 notes that the "quality and comprehensiveness of the results derived from an IPE depend on the vigor with which the utility applies the method of examination and on the utility's commitment to the intent of the IPE". SCE embarked on the current program based on its own internal desire to evaluate facility safety. The program is performed by a dedicated SCE PRA group with assistance from consultants as appropriate. Results are reviewed with and by plant operations personnel and system engineers for consistency with design and operation. Further, the results are

used on a regular basis to evaluate the reliability and performance of the plant.

The level of involvement and detail associated with the program requires careful and consistent development. Therefore, the program will be continued at a consistent pace to assure active and thorough involvement by all appropriate plant and engineering personnel. The schedule provided in this enclosure for the development of the PRA program and the IPE is consistent with this ongoing level of involvement.

IPE Methodology

The following paragraphs identify the method which will be employed in performing the IPE and indicates the contents of the reports to be submitted to the NRC. In all aspects, the IPE will be completed in accordance with GL 88-20 and NUREG-1335.

The level 1 ("front-end") portion of the IPE will be completed consistent with current methods and approaches, such as those described in NUREG/CR-2300, PRA Procedures Guide. Additional considerations, for example the severe accident phenomenological issues considered in the generic letter, will be made. These considerations may result in minor variations to the specific tasks described in NUREG/CR-2300.

The assessment of internal flooding will be performed upon completion of all other aspects of the front-end analysis. This will allow the flooding assessment to benefit from the detailed plant model developed through the front-end evaluation. The flooding analysis will include consideration of potential flooding sources, the potential for flood induced plant accidents or transients, the likelihood of system failure due to flooding, and the ability to detect and mitigate postulated flooding conditions.

The evaluation of Unresolved Safety Issue A-45, "Shutdown Decay Heat Removal Requirements," will be included in the IPE analysis. Vulnerabilities in the decay heat removal systems will be identified if they exist and reported with the IPE results.

The containment evaluation ("back-end" analysis) will be completed consistent with current methods and approaches, such as those described in NUREG/CR-2300, PRA Procedures Guide. Any additional considerations will be explained in the IPE submittal. This will include development of a plant-specific containment event tree as described in Section 2.2.2.5 of NUREG-1335. The potential containment failure and mechanisms of Table 2.2 of NUREG-1335 will be treated in the containment event tree evaluation.

To the extent possible, an approximate approach utilizing applicable information performed for plants similar to SONGS will

be utilized to perform the back-end analysis. This approach is consistent with the generic letter requirements. Wherever reference calculations are adopted for applicability to SONGS, an evaluation of the principal difference between SONGS and the reference facility will be performed to provide assurance that the assumptions and results are directly applicable or to identify the general impact of differences.

Based upon the completed front and back-end analyses, significant vulnerabilities and insights will be evaluated. This will be done by evaluating those sequences and cutsets contributing a significant portion of each functional failure type and category of accident sequence. The evaluation will include consideration of relative risk or importance measures and the performance of sensitivity studies to enhance the insights developed. Any identified vulnerability that warrants immediate correction will be thoroughly evaluated and appropriate corrective action taken. Similarly, information indicating that currently planned or anticipated modifications may not be beneficial, will be evaluated and the project will be considered for deferral or cancellation.

IPE Submittal

The results of the review will be documented in a two tier approach. As described in GL 88-20, the information submitted will include the results of the examination, and a summary of the insights gained. Detailed documentation will be retained by SCE and utilized in SCE's ongoing risk evaluation and safety assessment program. The report submitted to the NRC will be consistent with the general guidance in Table 2.1 of NUREG-1335. The schedule for performance of the IPE is as follows:

IPE Schedule

The current schedule for performance of the IPE is as follows:

	TASK	SCHEDULE
1.	Completion of the Front-End Analysis	9/1/91
2.	Completion of the Back-End Analysis	3/1/92
3.	Completion of the IPE and Submittal of Results	9/1/92