

UNITED STATES NUCLEAR REGULATORY COMMISSION WASHINGTON, D. C. 20555

July 12, 1989

Docket No. 50-206

Mr. Kenneth P. Baskin Vice President Southern California Edison Company 2244 Walnut Grove Avenue Post Office Box 800 Rosemead, California 91770

Dear Mr. Baskin:

SUBJECT: COMMENTS ON THE SOUTHERN CALIFORNIA EDISON COMPANY RESPONSE TO GENERIC LETTER 88-17 WITH RESPECT TO EXPEDITIOUS ACTIONS FOR LOSS OF DECAY HEAT REMOVAL FOR SAN ONOFRE UNIT 1 (TAC NO. 69773)

Generic Letter (GL) 88-17 was issued on October 17, 1988 to address the potential for loss of decay heat removal (DHR) during nonpower operation. In the GL, we requested (1) a description of your efforts to implement the eight recommended expeditious actions of the GL and (2) a description of the enhancements, specific plans and a schedule for implementation of the six recommended programmed enhancements.

The NRC staff has reviewed your response to Generic Letter 88-17 on expeditious actions in the letter of January 5, 1989. We find that your response is generally complete and appears to meet the intent of the generic letter with respect to expeditious actions. However, in a few areas, we cannot fully understand your actions taken in response to GL 88-17. You may wish to consider several observations in order to assure yourselves that the actions are adequately addressed:

1. For RCS water level measurement you indicate that the primary method used is the refueling reactor water level indication (RWLI) system. You state that this system provides wide range indication. You have not stated the pressure tap locations, the range or accuracy. Also, you indicate that the RWLI system does not have an alarm and the readings are not provided in the control room. Therefore the readings are to be monitored and recorded every 15 minutes when the readings are between the reduced RCS inventory location and the top of the hot leg. A second narrow range level transmitter is used when the level has dropped to mid-loop. This transmitter is on the "C" hot leg. It provides level indication in the control room but there is no logging, only periodic monitoring. The

DEOI MARY



narrow range level measurement indicates between the bottom and top of the "C" hot leg and has a low level alarm at the 40 percent level. You state that if for some reason the alarm is not available, then the narrow range level will be monitored and recorded at least once every hour. However, if less than two level indications are available in the control room, then the level reading will be recorded at least once every 15 minutes. The accuracy of the level readings is not provided.

You state that a wide range tygon hose level system is also provided in conjunction with the RWLI system. You indicate that both the tygon hose and RWLI system indications connect to the same sensing taps. Since common taps are used extra care is needed to avoid common errors in level measurement. When two or more level instruments are in place, care should be taken to resolve any discrepancy between the measurement systems. Also, the pressure of the reference leg should approximate the pressure of the void in the hot leg or be compensated to obtain the correct level value.

- 2. For the expeditious action regarding provision of at least two available or operable means of adding inventory to the RCS that are in addition to pumps that are a part of the normal DHR system, you have provided information on two means. One of these means is a charging pump (high pressure). The second means is refueling water pump, or primary makeup pump with the boric acid injection pump, or another charging pump. You state that all the selected pumps have ability to pump equal or more than 50 gpm and that plant conditions will determine the pump selection and flow path. You have described the normal injection path as into the RCS cold legs. As alluded to in Enclosure 2, Section 2.2.2 of GL 88-17, if openings totaling greater than 1 square inch exist in the cold legs, reactor coolant pumps and crossover piping of the RCS, the core can uncover quickly when pressurized under loss of RHR conditions. If this situation should arise, it is generally more effective to inject makeup water into the hot leg rather than the cold leg.
- 3. You have indicated that prior to allowing a cold leg breach an RCS hot leg vent will be established. You have stated that the vent opening that will be used will be a steam generator hot leg manway or the pressurizer manway. Steam generator or pressurizer manways are often removed to provide vent openings on the hot side of the RCS to relieve RCS pressurization. Calculations need to be performed to verify the effectiveness of RCS openings, however, because even for relatively large hot side openings in the RCS, pressurization to several psi can still result. For example, with removal of a pressurizer manway large steam flows in combination with flow restrictions in the surge line and lower pressurizer hardware may still lead to pressurization.

There is no need to respond to the above observations.

Mr. Baskin

As you are aware, the expeditious actions you have briefly described are an interim measure to achieve an immediate reduction in risk associated with reduced inventory operation, and these will be supplemented and in some cases replaced by programmed enhancements. We intend to audit both your response to the expeditious actions and your programmed enhancement program. The areas where we do not fully understand your responses as indicated above may be covered in the audit of expeditious actions.

The area of programmed enhancements will be addressed in a separate letter.

Sincerely,

Charles M. Tram

Charles M. Trammell, Senior Project Manager Project Directorate V Division of Reactors Projects III, IV, V and Special Projects Office of Nuclear Reactor Regulation

cc: See next page Mr. Kenneth P. Baskin Southern California Edison Company

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

Mr. Robert G. Lacy Manager, Nuclear San Diego Gas & Electric Company P. O. Box 1831 San Diego, California 92112

Resident Inspector/San Onofre NPS 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 1600 Pacific Highway Room 335 San Diego, California 92101

Regional Administrator, Region V U.S. Nuclear Regulatory Commission 1450 Maria Lane, Suite 210 Walnut Creek, California 94596

Dr. Gerard C. Wong, Chief Radiological Materials Control Section State Department of Health Services 714 P Street, Office Bldg. #8 Sacramento, California 95814

Mr. Don Womeldorf Chief Environmental Management California Department of Health 714 P Street, Room 616 Sacramento, California 95814 San Onofre Nuclear Generating Station, Unit No. 1

Mr. F. B. Marsh, Project Manager Bechtel Power Corporation P. O. Box 60860 Terminal Annex Los Angeles, California 90060 Baskin

As you are aware, the expeditious actions you have briefly described are an interim measure to achieve an immediate reduction in risk associated with reduced inventory operation, and these will be supplemented and in some cases replaced by programmed enhancements. We intend to audit both your response to the expeditious actions and your programmed enhancement program. The areas where we do not fully understand your responses as indicated above may be covered in the audit of expeditious actions.

- 4 -

The area of programmed enhancements will be addressed in a separate letter.

Sincerely,

/s/

Charles M. Trammell, Senior Project Manager Project Directorate V Division of Reactors Projects III, IV, V and Special Projects Office of Nuclear Reactor Regulation

cc: See next page

SO 1 88-17 LOG p10 7/10

DISTRIBUTION Docket File

JLee BGrimes

PD5VDRSP CTramme1:rw 7/J/89 NRC & Local PDRs CTrammell ACRS (10)

D:PØV:DRSP

GKnighton

PD #5 Reading OGC (f/info only) H. Balukjian MVirgilio EJordan

DFOI