PRELIMINARY NOTIFICATION OF EVENT OR UNUSUAL OCCURRENCE--PNO-V- 82-45 Date: 11/10/82

This preliminary notification constitutes EARLY notice of events of POSSIBLE safety or public interest significance. The information is as initially received without verification or evaluation and is basically all that is known by IE staff on this date.

Facility: Southern California Edison Company
San Onofre Nuclear Generating Station
Unit 2
San Clemente, California
Docket No. 50-361

Licensee Emergency Classification:
X Notification of Unusual Event
____ Alert
____ Site Area Emergency
____ General Emergency
____ Not Applicable

Subject: EXCESSIVE COOLDOWN TRANSIENT AND AUTOMATIC INITIATION OF SAFETY INJECTION

At 4:00 p.m. on 11/09/82, the SONGS-2 reactor experienced a cooldown transient of about 128°F in about 4.5 minutes with an automatic actuation of safety injection. The plant was at 20% power and preparations were being made for the 20% trip power ascension test. A consultant had opened the door to the feedwater control system cabinet causing the main plug on the power supply to become disconnected. This caused power to be lost to the feedwater control system (FWCS) and the steam bypass control system (SBCS). The main feedwater regulating valves (FWRV) failed-as-is and the steam bypass valves remained shut. At 20% power, the main source of feedwater to the steam generators is the feedwater bypass valves, which failed shut, thus significantly decreasing feed flow to the steam generators. This caused the steam generator level to decrease. To restore feed flow, the FWRVs were manually set for a 100% open demand and auxiliary feedwater was initiated. The FWRVs could not open because no power was available. In response to the rapidly decreasing steam generator level, the operators manually tripped the reactor and all reactor coolant pumps.

The consultant observed that the plug had become disconnected and reconnected the plug, thus restoring FWCS and SBCS power. This caused the FWRV on steam generator (SG) 089 to go to full open, the setting on the manual controller. With both the 100% feed flow on SG-089 and auxiliary feedwater flow, the level in the SG rapidly went to 100% and increased pressure to above the SBCS controller setting causing two steam dumps to dump 20% of steam flow to the condenser. These two events caused a rapid cooldown and depressurization of the reactor coolant system and safety injection was automatically initiated at about 4:01 p.m. During the transient, pressurizer level indication was lost and reactor coolant system pressure and temperature decreased to about 950 psig and 423°F.

The safety injection system remained on from 4:01 p.m. until about 4:50 p.m. and injected about 5000 gallons of water.

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DISTRIBUTION:

H St. 10:00 3m	MNBB 9:45	Phillips 8:55	E/W 8:36	Willste 9:25	Mail:	
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	Licensee: 10:15 3m					
	(Reactor Licensees)					

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REGION V: FORM 211
(revised 5/11/82)

The licensee notified the HQ Duty Officer of the event at 4:43 p.m. and declared and terminated an unusual event by notification of the HQ Duty Officer at about 5:40 p.m. (PST).

At about 4:45 p.m., the situation had stabilized with the reactor coolant system at about 1500 psig and 470°F with pressurizer level returning to normal. At this point, preparations were made to secure safety injection. The plant was subsequently returned to hot standby at about 2260 psig and 525°F.

The licensee is taking the following action: (1) perform an engineering evaluation of the effects of the cooldown transient exceeding Technical Specification limits; (2) determine if a bubble was drawn in the reactor vessel and whether noncondensible gasses could have collected in the Control Element Drive Mechanism extension tubes and the reactor vessel head; (3) perform a visual inspection of the main steam lines to determine if damage occurred due to the flow of water into the main steam lines from SG-089; (4) determine the event sequence and compare this to the desired sequence; and (5) evaluate the effects of the transient on the reactor coolant pump seals.

Media interest is expected. The licensee plans to issue a news release. Region V has made this information available to the news media through their recorded message system. Region V (San Francisco) received notification of this occurrence from the Headquarters Duty Officer at 4:55 p.m. (PST) on 11/09/82.