

*Southern California Edison Company*

SAN ONOFRE NUCLEAR GENERATING STATION

P.O. BOX 128

SAN CLEMENTE, CALIFORNIA 92672

June 7, 1982

H. B. RAY

STATION MANAGER

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REGION V  
TELEPHONE  
(714) 492-7700

U. S. Nuclear Regulatory Commission  
Office of Inspection and Enforcement  
Region V  
1450 Maria Lane, Suite 210  
Walnut Creek, California 94596 - 5368

Attention: Mr. R. H. Engelken, Regional Administrator

Dear Sir:

Subject: Docket No. 50-361  
Special Report  
San Onofre Nuclear Generating Station, Unit 2

This Submittal constitutes a Special Report in accordance with Technical Specification 6.9.2 of Appendix A to Operating License NPF-10 for San Onofre Nuclear Generating Station Unit 2. Action Statement c to Technical Specification 3.4.8.3.1 requires that such a Special Report be prepared within 30 days in the event that either the Shutdown Cooling System (SDCS) Relief Valve or a Reactor Coolant System (RCS) vent is used to mitigate an RCS pressure transient.

On May 7, 1982 with San Onofre Unit 2 in Operational Mode 5, the SDCS relief valve opened to mitigate an RCS pressure transient.

At the time of the event the RCS was solid, with no bubble in the pressurizer. RCS temperature and pressure were 112°F and 350 psia. The SDCS was in operation utilizing one Low Pressure Safety Injection (LPSI) pump and one Shutdown Cooling Heat Exchanger. Normal charging was in progress and letdown was accomplished by diverting approximately 46 gpm of LPSI discharge into the letdown line at 450 psia. The RCS pressure was controlled by automatic operation of the back-pressure regulating valve (2PV0201B). In this mode of operation the back-pressure regulator valve had been re-set to 450 psia, the same as the LPSI pump discharge pressure.

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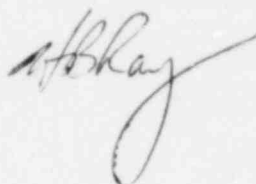
June 7, 1982

The circumstance initiating the pressure transient was the manual stopping of the LPSI pump in order to align the second SDCS heat exchanger for service. This action instantly reduced the letdown flow pressure to the RCS pressure of 350 psia. The back-pressure regulator was still set at 450 psia; therefore, charging began to increase the RCS pressure rapidly. The shift operators promptly switched the back-pressure regulator to manual and began opening this valve in an attempt to suppress the pressure transient. This action lowered the RCS pressure to 350 psia in about six minutes, but not before a pressure spike had occurred. By all indications, this spike exceeded the 406 psia setpoint on SDCS pressure relief valve (2PSV9349). The Plant computer trend recording of Pressurizer pressure indicated a momentary pressure spike of no greater than 460 psia, which was below the RCS pressure temperature limits of Technical Specification 3.4.8.1. Examination of the containment sump revealed approximately 30 gallons of water, indicating that the SDCS relief valve mitigated the pressure transient by lifting for about 40 seconds. This deduction correlates with the pressurizer pressure and letdown flow readings recorded every 30 seconds by the plant computer.

Corrective action to prevent recurrence is to amend operating procedures by requiring that the back-pressure regulating valve be in the manual control mode whenever starting or stopping SI or charging pumps while the RCS is solid. Caution statements will also be added to the procedures requiring that the RCS pressure be closely monitored under these circumstances.

If there are any questions regarding the above or the attached, please contact me.

Sincerely,



cc: U.S. Nuclear Regulatory Commission  
Office of Inspection and Enforcement

U. S. Nuclear Regulatory Commission  
Office of Management Information & Program Control (MIPC)

Institute of Nuclear Power Operations (INPO)

A. E. Chaffee (USNRC Resident Inspector San Onofre Unit 2)