

R. W. Krieger Vice President Nuclear Generation

October 23, 2000

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

Subject: Docket Nos. 50-362 30-Day Report Licensee Event Report No. 2000-003 San Onofre Nuclear Generating Station, Unit 3

Gentlemen:

This submittal provides a 30-day Licensee Event Report (LER) in accordance with 10CFR50.73(a)(2)(i) describing a condition of an inoperable containment dome air circulator fan. Neither the health nor the safety of plant personnel or the public was affected by this occurrence.

Any actions listed are intended to ensure continued compliance with existing commitments as discussed in applicable licensing documents; this LER contains no new commitments. If you require any additional information, please so advise.

Sincerely,

Kregn

LER No. 2000-003

cc: E. W. Merschoff, Regional Administrator, NRC Region IV J. A. Sloan, NRC Senior Resident Inspector, San Onofre Units 2 & 3

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NRC FORM 366 U.S. NUCLEAR REGULATORY COMMISSION (MMM-YYYY) LICENSEE EVENT REPORT (LER) (See reverse for required number of digits/characters for each block)							APPROVED BY OMB NO. 3150-0104 EXPIRES MM/DD/YYYY Estimated burden per response to comply with this mandatary information collection request 50 hrs. Reported lessons learned are incorporated into the licensing process and fed back to industry. Forward comments regarding burden estimate to the information and Records Management Branch (T-6 F33) U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, and to the Paperwork Reduction Project (3150-0104), Office of Management and Budget, Washington, DC 20503. If a document used to impose an information collection does not display a currently valid OMB control number, the NRC may not conduct or sponsor, and a person is not required to respond to, Information collection.							
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gle-space ABSTRACT (Limit to 1400 spaces, i.e., app

During Technical Specification (TS) surveillance tests on 8/15/2000, the feeder breaker for a Containment Dome Air Circulator fan was slow to trip. The breaker was overhauled, and returned to service on 8/26/2000. On 10/1/2000 (discovery date), while attempting to start the fan, its feeder breaker tripped on over-current. Because the fan motor is not accessible during power operation, Southern California Edison (SCE) has not been able to determine the exact cause of the trip. Nevertheless, SCE considers that fan may have been inoperable longer than the TS out of service time limit of 30 days. Consequently, SCE is reporting this occurrence in accordance with 10CFR50.73(a)(2)(i).

The cause of this occurrence is under investigation.

On 10/6/2000, SCE revised the Bases of TS 3.6.8 and the UFSAR in accordance with 10CFR50.59 to allow operation with one operable fan unit per train, bringing the unit into full compliance with TS 3.6.8.

The fan will be repaired during the upcoming Unit 3 refueling outage, currently scheduled to begin in January 2001.

This event had minimal safety significance.

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Plant:San Onofre Nuclear Generating Station, Unit 3Reactor VendorCombustion EngineeringDiscovery DateOctober 1, 2000Mode1 - power operationPower99.9 percent

Background:

The containment dome air circulator system (BB) has two independent trains, each of which consists of two dome air circulation fans, motors, and controls. The two trains are initiated automatically on a Containment Cooling Actuation Signal (CCAS) or can be manually started from the control room. Each train is powered from a separate emergency power supply. Since each train can provide 100 percent of the mixing requirements, the system will provide its design function with a limiting single active failure.

This system reduces the potential for a hydrogen-oxygen reaction by providing a uniformly mixed post accident containment atmosphere. The dome air circulator accelerates the air mixing process between the upper dome space of the containment atmosphere during LOCA operations. It also prevents any hot spot air pockets during the containment cooling mode.

Technical Specification (TS) 3.6.8, Containment Dome Air Circulators, requires two dome air circulator trains to be operable in Modes 1 and 2, with power to each from an independent, safety related power supply. If one train becomes inoperable, TS 3.6.8 Action A requires SCE to restore train operability within 30 days.

Description of the Event:

During TS surveillance tests performed on August 15, 2000, feeder breaker 3B0419 for Containment Dome Air Circulator fan 3MA074 was slow to trip. The breaker was overhauled, and following satisfactory completion of post-maintenance and TS surveillance testing, was returned to service on August 26, 2000.

On October 1, 2000 (discovery date), while attempting to start standby dome air circulator 3MA074, its feeder breaker 3B0419 tripped on over-current (AR00100003) and was declared inoperable. Because the fan motor is not accessible during power operation, SCE has not been able to determine the exact cause of the trip. Nevertheless, SCE conservatively considers that 3MA074 may have been inoperable longer than the TS out of service time limit of 30 days. Consequently, SCE is reporting this occurrence in accordance with 10CFR50.73(a)(2)(i).

Cause of the Event:

The cause of this occurrence is under investigation.

Corrective Actions:

On October 6, 2000, SCE revised the Bases of TS 3.6.8 and the UFSAR in accordance with 10CFR50.59 to allow operation with one operable fan unit per train, bringing the unit into full compliance with TS 3.6.8.

3MA074 will be repaired during the upcoming Unit 3 refueling outage, currently scheduled to begin in January 2001.

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Safety Significance:

This event had minimal safety significance.

- Both dome air circulators operating together are able to achieve 5 containment air volume turnovers per hour. SCE has concluded that 2.5 containment volume turnovers per hour provided by a single fan will provide adequate mixing for the system to perform its intended function.
- The safety evaluation performed in accordance with 10CFR50.59 to change the TS Bases and UFSAR demonstrates that this was not an unreviewed safety question.
- This occurrence is categorized "Green" using the latest draft of the Reactor Safety Significance Determination Process (SDP).

Additional Information:

In the past 3 years, SCE has not reported any similar events related to containment dome air circulators.