SOUTHERN CALIFORNIA
EDISON
An EDISON INTERNATIONAL Company

R. W. Krieger
Vice President
Nuclear Generation

August 29, 1996

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

Subject: **Docket No. 50-362**
**30 Day Report**
**Licensee Event Report No. 96-003**
**San Onofre Nuclear Generating Station, Unit 3**

This submittal provides a written Licensee Event Report (LER) for a delinquent Technical Specification required iodine sample analysis. Neither the health nor the safety of plant personnel or the public was affected by this occurrence.

Sincerely,

Enclosure: LER No. 96-003

cc: L. J. Callan, Regional Administrator, NRC Region IV
J. E. Dyer, Director of Reactor Safety, NRC Region IV
K. E. Perkins, Jr., Director, Walnut Creek Field Office, NRC Region IV
J. A. Sloan, NRC Senior Resident Inspector, San Onofre Units 2 & 3
M. B. Fields, NRC Project Manager, San Onofre Units 2 and 3
Institute of Nuclear Power Operations (INPO)

040094



P. O. Box 128
San Clemente, CA 92674
714-368-6255
Fax 714-368-6183

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LICENSEE EVENT REPORT (LER)

| Facility Name (1) | Docket Number (2) | Page (3) |
|---|---|---|
| SAN ONOFRE NUCLEAR GENERATING STATION, UNIT 3 | 0 5 0 0 0 3 6 2 | 1 of 0 3 |

Title (4)

DELINQUENT IODINE SAMPLE ANALYSIS FOLLOWING 15 PERCENT POWER CHANGE IN A ONE HOUR PERIOD

| EVENT DATE (5) | | | LER NUMBER (6) | | | | REPORT DATE (7) | | | OTHER FACILITIES INVOLVED (8) | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Month | Day | Year | Year | /// /// | Sequential Number | /// /// Revision Number | Month | Day | Year | Facility Names | Docket Number(s) |
| 0 8 | 0 3 | 9 6 | 9 6 | --- | 0 0 3 | --- 0 0 | 0 8 | 2 9 | 9 6 | NONE | |

| OPERATING MODE (9) | THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10CFR (Check one or more of the following) (11) | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| 2 | ___ 20.402(b) | ___ 20.405(c) | ___ 50.73(a)(2)(iv) | ___ 73.71(b) | | | | | | |
| POWER LEVEL (10) 0 0 1 | ___ 20.405(a)(1)(i) | ___ 50.36(c)(1) | ___ 50.73(a)(2)(v) | ___ 73.71(c) | | | | | | |
| ////////////////////////// | ___ 20.405(a)(1)(ii) | ___ 50.36(c)(2) | ___ 50.73(a)(2)(vii) | ___ Other (Specify in Abstract below and in text) | | | | | | |
| ////////////////////////// | ___ 20.405(a)(1)(iii) | X 50.73(a)(2)(i) | ___ 50.73(a)(2)(viii)(A) | | | | | | | |
| ////////////////////////// | ___ 20.405(a)(1)(iv) | ___ 50.73(a)(2)(ii) | ___ 50.73(a)(2)(viii)(B) | | | | | | | |
| ////////////////////////// | ___ 20.405(a)(1)(v) | ___ 50.73(a)(2)(iii) | ___ 50.73(a)(2)(x) | | | | | | | |

LICENSEE CONTACT FOR THIS LER (12)

| Name | TELEPHONE NUMBER AREA CODE |
|---|---|
| R. W. Krieger, Vice President, Nuclear Generation | 7 1 4 3 6 8 - 6 2 5 5 |

COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT (13)

| CAUSE | SYSTEM | COMPONENT | MANUFAC-TURER | REPORTABLE TO NPRDS | /////// | CAUSE | SYSTEM | COMPONENT | MANUFAC-TURER | REPORTABLE TO NPRDS | ////// |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | /////// | | | | | | ////// |
| | | | | | /////// | | | | | | ////// |

| SUPPLEMENTAL REPORT EXPECTED (14) | Expected Submission Date (15) | Month | Day | Year |
|---|---|---|---|---|
| ___ Yes (If yes, complete EXPECTED SUBMISSION DATE) ___ X NO | | | | |

ABSTRACT (Limit to 1400 spaces, i.e., approximately fifteen single-space typewritten lines) (16)


On 8/3/96, Edison began a shutdown of Unit 3. Between 0310 and 0410, plant operators reduced reactor power by about 16 percent. Technical Specification (TS) 4.4.7 requires a reactor coolant system (RCS) sample to be analyzed for iodine isotopes within 2 to 6 hours after reactor power is changed by 15 percent or more during a one hour period. Edison is reporting this occurrence in accordance with 10CFR50.73(a)(2)(i), since the required iodine sample analysis was not performed.

Because there is no rate-of-change alarm or readout, Operators periodically check available instantaneous power level readouts and make a judgment as to whether they are close to the 15 percent rate-of-change limit. Near the end of the plant shutdown, a feedwater control valve stuck partially open. Therefore, this event occurred due to: (1) lack of a direct control room indication to confirm compliance with this TS requirement, and (2) unexpected shutdown complications temporarily distracted control room attention (cognitive personnel error).

Edison promptly completed the required RCS sample analysis and confirmed iodine level had remained within the TS allowed limits. Therefore, there was no safety significance to this event.

Plant: San Onofre Nuclear Generating Station, Unit 3
Reactor Vendor: Combustion Engineering
Event Date: August 3, 1996
Mode: 2, Startup
Power: 1 percent

DESCRIPTION OF THE EVENT:

On 8/3/96, Edison began a shutdown of Unit 3 to allow repair of several tube leaks in the 5th point feedwater heat exchanger [SD,HX]. While completing this shutdown, between 0310 and 0410, plant operators [utility, licensed] reduced reactor power by about 16 percent. Technical Specification (TS) 4.4.7 requires a reactor coolant system (RCS) sample to be analyzed for iodine isotopes within 2 to 6 hours after reactor thermal power is changed by 15 percent or more during a one hour period.

Control room operators monitor power level rate-of-change by observing several excore channels [IG,JI] and power level monitors [IO,JI]. Because there is no rate-of-change alarm or readout, Operators periodically check available instantaneous power level readouts and make a judgment as to whether they are close to the 15 percent rate-of-change limit. In addition, Operators kept a manual log of reactor power level periodically (every 15 to 30 minutes).

Typically, Operators will review hard-copy printouts of power level if the rate-of-change exceeds 12 percent per hour. For the 8/3 shutdown, Operators periodically (every 5 to 10 minutes) checked the power rate-of-change and believed the rate-of-change had been fairly consistent at about 12 percent.

During a belated post-shutdown review of a computer graph of power level printouts at about 1600 the same day (initiated at the request of the unit superintendent [utility, licensed]), a Station Technical Advisor (STA) [utility non-licensed] noted reactor power had been reduced by about 16 percent in one hour without the required sample analysis being performed. Further review determined that for the one hour period 0300-0400 and 0320-0420 [ten minutes before and after the 0310-0410 period], the rate-of-change was approximately 12 percent.

In addition, the post-shutdown review indicated that between 0025 and 0125, the reactor power rate-of-change had been approximately 14.75 percent per hour. Although this did not exceed the TS limit for requiring an iodine sample, Operators were similarly not aware they had been very close to the limit during this period.

Edison promptly completed the required RCS sample analysis and confirmed iodine level had remained within the TS allowed limits. Edison is reporting this occurrence in accordance with 10CFR50.73(a)(2)(i) for failing to take and analyze the sample in accordance with TS surveillance time limit requirements.

CAUSE OF THE EVENT:

During the plant shutdown, both the control room supervisor [utility, licensed] and the unit superintendent were frequently monitoring the reactor power level rate-of-change. Because there is not an alarm or a meter in the control room that displays the reactor power rate-of-change per hour, the unit superintendent was manually logging the reactor power level every 30 minutes during the down power to ensure compliance with the TS requirements. For the time increments observed (documented every 30 minutes) the manual log indicates the reactor power level did not change by more than 15 percent in any one hour period.

Near the end of the plant shutdown, a feedwater control valve [SJ,FCV] stuck partially open. The operators responded appropriately by reducing reactor power from about 8 percent to about 2 percent to aid control of steam generator water level and to prevent an automatic reactor trip on high steam generator [AB,SG] level. During this unexpected shutdown transient, the Shift Superintendent (SS)[utility, licensed] did consider the potential for reactor power level rate-of-change to have exceeded 15 percent in one hour and that an RCS sample iodine analysis may have been required. However, due to the level of control room activities, the SS did not immediately request a review of the shutdown power history to confirm compliance with the TS (the unit superintendent also stopped his manual log of reactor power when the plant transient occurred).

When the power history review was completed (at 1630), the time allowed by the TS to complete the required analysis had already been exceeded.

Therefore, the TS required iodine sample analysis was not completed within the allowed time limits due to: (1) lack of a direct control room indication to confirm compliance with this TS requirement, and (2) unexpected shutdown complications temporarily distracted control room attention (cognitive personnel error).

CORRECTIVE ACTIONS:

An RCS sample iodine analysis was requested, and at 1620 Chemistry completed the iodine analysis confirming the iodine levels had remained within the TS limits.

Edison has coached the individuals involved and will enhance procedural guidance for evaluating the rate of power change.

Edison will evaluate a computerized rate-of-change annunciator, or other appropriate computerized operator aid, for future plant computer upgrades.

SAFETY SIGNIFICANCE:

Because iodine levels remained within the TS allowed limits, there was no safety significance to this event. Further, had this event occurred two days later, the TS would not require a report to the NRC.

As noted above, this event occurred on 8/3/96. On 8/5/96, Edison implemented new TS under the Technical Specification Improvement Project (TSIP). Under TSIP, the corresponding TS (renumbered to SR 3.4.16.2) is only applicable in Mode 1 operation (power operation greater than 5 percent power). The power level change event reported herein occurred late in the shutdown and overlapped the Mode 1 to Mode 2 transition. The power level change which occurred during Mode 1 operation never exceeded 15 percent in one hour. Consequently, had this event occurred after 8/5/96, a report to the NRC would not be required.

ADDITIONAL INFORMATION:

Edison has not submitted any LERs during the last 3 years for not properly implementing the requirements of TS 4.4.7 during power changes of 15 percent in one hour.