Southern California Edison Company

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September 28, 1983

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

Attention: Mr. J. B. Martin, Regional Administrator

Dear Sir:

Subject: Docket Nos. 50-361 and 50-362
Licensee Event Report Nos. 83-076, Rev. 1
and 83-105, Rev. 1
San Onofre Nuclear Generating Station, Units 2 and 3

Reference: a) Letter, H. B. Ray (SCE) to J. B. Martin (NRC), dated August 2, 1983
b) Letter, H. B. Ray (SCE) to J. B. Martin (NRC), dated August 31, 1983

The referenced letters provided you with the required 30-Day Reports pursuant to Section 6.9.1.13.b of Appendix A, Technical Specifications to Facility Operating Licenses NPF-10 and NPF-15 for San Onofre Units 2 and 3, respectively, for occurrences involving Limiting Condition for Operation (LCO) 3.3.2 associated with the Toxic Gas Isolation System (TGIS). As indicated in Reference (a), a revised Licensee Event Report (LER) was to be submitted by September 16, 1983, however, additional time was required to determine the appropriate corrective actions. Enclosed are LER 83-076, Revision 1, and LER 83-105, Revision 1, involving a similar occurrence which include corrective actions to prevent recurrence.

On July 3, 1983, and also on August 1, 1983, the pilot flames of Trains "A" and "B" Toxic Gas Isolation System (TGIS) butane/propane monitors were found extinguished while performing the once-per-shift surveillance. For the July 3, 1983, event, in accordance with LCO 3.3.2, Table 3.3-3, Action Statement 15, the Control Room Emergency Air Cleanup System was manually placed in the isolation mode within one hour. Trains "A" and "B" were returned to operable status within seven hours. For the August 1, 1983, event, since Train "B" was returned to operable status

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within one hour, in accordance with LCO 3.3.2, Action Statement 14, action was initiated to return Train "A" to operable status within seven days. Train "A" was returned to operable status within two days.

Investigation into the flameout condition by the operators revealed no apparent cause for these flameouts. Sufficient fuel supply existed and the valve lineup was correct.

For both events, TGIS failed to alarm upon a flameout condition. These events prompted further investigation into: (a) the cause of the flameouts when sufficient fuel supply exists and, (b) the failure of TGIS to actuate upon a flameout condition.

The cause of the flameouts when sufficient fuel supply exists could not be determined. A design change is being prepared to eliminate the potential of back leakage of nitrogen into the instrument air lines to the TGIS butane/propane monitors. Installation of an enclosure around the pilot flames is under consideration to minimize environmental effects.

The failure of TGIS to actuate upon a flameout condition was due to limitations in utilizing the low alarm setpoint for flameout detection. TGIS utilizes a direct method of flame detection involving a thermister above the pilot flames. Due o fluctuations in the operating level of the monitor, it is difficult to maintain the low alarm setpoint close enough to the operating level without receiving excessive alarms. A design change is being prepared to: 1) add a new flameout detection signal to the TGIS actuation circuitry and, 2) to eliminate back leakage of nitrogen to the burner.

If there are any questions regarding these events, please so advise.

Sincerely,

Enclosures: LER 83-076, Revision 1 (Unit 2)
LER 83-105, Revision 1 (Unit 2)

cc: A.E. Chaffee (USNRC Resident Inspector, Units 2 and 3)
J.P. Stewart (USNRC Resident Inspector, Units 2 and 3)

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