NRC Form 366
(9/83)

U.S. NUCLEAR REGULATORY COMMISSION
APPROVED OMB NO. 3150-0104
EXPIRES: 8/31/85

LICENSEE EVENT REPORT (LER)

FACILITY NAME (1)	DOCKET NUMBER (2)	PAGE (3)
SAN ONOFRE NUCLEAR GENERATING STATION, UNIT 2	0 5 0 0 0 3 6 1	1 OF 0 6

TITLE (4)
FIRE PROTECTION PROGRAM DISCREPANCIES

EVENT DATE (5)			LER NUMBER (6)			REPORT DATE (7)			OTHER FACILITIES INVOLVED (8)	
MONTH	DAY	YEAR	YEAR	SEQ. NUMBER	REV. NUMBER	MONTH	DAY	YEAR	FACILITY NAMES	DOCKET NUMBER(S)
0 3	0 6	8 4	8 4	0 1 5	0 1	0 6	0 1	8 4	UNIT 3	0 5 0 0 0 3 6 2
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OPERATING MODE (9)	THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check one or more of the following) (11)							
1		20.402(b)		20.405(c)		50.73(a)(2)(iv)		73.71(b)
POWER LEVEL (10)		20.405(a)(1)(i)		50.36(c)(1)		50.73(a)(2)(v)		73.71(c)
1 0 0		20.405(a)(1)(ii)	X	50.36(c)(2)		50.73(a)(2)(vii)	X	OTHER (Specify in Abstract below and in Text, NRC Form 366A)
		20.405(a)(1)(iii)		50.73(a)(2)(i)		50.73(a)(2)(viii)(A)		License Condition 2.G.
		20.405(a)(1)(iv)	X	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
J. G. HAYNES, STATION MANAGER	7 1 4 — 4 9 2 - 7 7 0 0

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

CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPRDS		CAUSE	SYSTEM	COMPONENT	MANUFACTURER	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)

As reported on March 7, 1984, pursuant to 10 CFR 50.36 and 50.72(b)(1)(ii)(B) and License Condition 2.G, the preparation of the updated Fire Hazards Analysis (FHA) and the review of IE Information Notice (IN) 84-09 have resulted in the issuance of Nonconformance Reports (NCR's) identifying apparent discrepancies between the SCE Fire Protection Program and NRC requirements. This report results from 49 NCR's identifying conditions which have been determined to be in nonconformance with the license, the current FHA and/or the Technical Specifications. These apparent discrepancies involve: I&C cable protection; associated circuit analysis; separation criteria inside containment; alternative safe shutdown analysis; alternative safe shutdown monitoring; fire hose houses; electrical cable construction and testing; ventilation systems; fire protection equipment installation; the use of combustible materials; cable separation and fire barriers; and, smoke and fire detectors.

Appropriate compensatory measures have been implemented. There continues to be no impact on the health and safety of plant personnel or the public associated with these discrepancies.

This report is also submitted to fulfill the requirements of License Condition 2.G relating to License Conditions 2.C(14)a and 2.C(12)a of Operating Licenses NPF-10 and NPF-15 for Units 2 and 3, respectively.

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In 1983, SCE initiated action to update the Fire Hazards Analysis (FHA). In early 1984, we received and reviewed IE Information Notice (IN) 84-09, "Lessons Learned from NRC Inspections of Fire Protection Safe Shutdown Systems." Members of our staff also attended the February 13 - 14, 1984, Nuclear Industry Fire Protection Seminar. As a result of these activities, we have identified apparent discrepancies between the SCE Fire Protection Program and NRC requirements which have been identified on Nonconformance Reports (NCR's). On March 6 and 7, 1984, it was determined that some of these NCR's constituted reportable occurrences under 10 CFR 50.36, 50.72, 50.73 and License Condition 2.G. During preparation of this LER, our review established that 49 NCR's identified conditions that are apparent discrepancies between the SCE Fire Protection Program and NRC requirements. The installed fire detection and suppression systems remained operable. Also, SCE maintains a dedicated, full-time fire brigade to backup the installed suppression systems. There is no safety significance associated with the discrepancies identified below.

Items I through V were included in a request for deviation submitted to NRR with the updated Fire Hazards Analysis on March 19, 1984. These items correspond to items "a" through "e" of the March 7, 1984, letter from J. G. Haynes (SCE) to J. B. Martin (NRC). Compensatory measures are not required for these items as their acceptability is discussed in the March 19, 1984, submittal. The FHA has been revised to reflect the existing plant configuration for these items.

I. I&C CABLE PROTECTION

One NCR identified that Instrument and Control (I&C) Cabling was analyzed and protected only for certain circuits used to assure remote safe hot shutdown capability, rather than analyzing and protecting all I&C safe shutdown cabling in all fire areas.

II. ASSOCIATED CIRCUIT ANALYSIS

One NCR identified that circuit separation, in accordance with Regulatory Guide 1.75 and IEEE-384 was relied upon as an acceptable method to preclude associated circuits problems rather than the performance of an associated circuits analysis as described in supplemental NRC guidance.

III. SEPARATION CRITERIA INSIDE CONTAINMENT

One NCR identified that SCE implemented separation criteria inside containment as described in the FHA, rather than as described in the criteria of Appendix R, Section III.G.2.

IV. ALTERNATIVE SAFE SHUTDOWN ANALYSIS

One NCR identified that SCE has provided an alternative safe shutdown capability without considering a concurrent loss of offsite power rather than apply guidance from Appendix R, Section III.L.

V. ALTERNATIVE SAFE SHUTDOWN MONITORING

One NCR identified that SCE has provided alternative safe shutdown monitoring of pressurizer pressure and level, steam generator pressure and level, and reactor coolant (T_H) temperature, but did not include a source range flux monitor for reactivity control.

VI. FIRE HOSE HOUSE EQUIPMENT (EIIS SYSTEM IDENTIFICATION CODE KP)

One NCR identified that the Station has two fully equipped fire engines, as allowed by NUREG-0800, rather than equipping three fire hose houses at fixed locations in accordance with National Fire Protection Association (NFPA) 24 as indicated in FHA Table III-1, Item E.2.g. It is felt that this configuration best meets the goals of the fire protection program in providing more efficient responses to fires. To correct this discrepancy, the FHA has been revised to describe the existing conditions of the Fire Protection Program.

VII. ELECTRICAL CABLE CONSTRUCTION AND TESTING (EIIS SYSTEM IDENTIFICATION CODE EC)

One NCR identified that limited amounts of Polyvinyl Chloride (PVC) insulated cable is used in various panels throughout the plant, including the Computer Rooms. These PVC cables have not been tested in accordance with IEEE No. 383 and are not covered by a flame-retardant coating and derated as indicated in FHA Table III-1, Item D.3.f. Although some PVC cable is used in the plant, its use is minimized and is restricted to nonsafety-related cable. All safety-related cable meets the testing requirements of the IEEE No. 383. To correct this discrepancy, the FHA has been revised to reflect that a minimum amount of PVC cabling is used in the plant.

VIII. VENTILATION SYSTEMS (EIIS SYSTEM IDENTIFICATION CODE VI)

One NCR identified that some smoke and other products of combustion removal methods are not as described in the response to FHA question 015.16. Another NCR identified some areas where power supplies and electrical controls for mechanical ventilation are located inside of the respective areas to be ventilated, rather than outside as indicated in FHA Table III-1, Item D.4.c. As corrective actions for both of these discrepancies, the FHA has been revised to indicate that smoke and other products of combustion will be ventilated by portable smoke ejectors. These smoke ejectors will be operated by the full-time Fire Brigade who have been specifically trained in their operation.

IX. FIRE PROTECTION EQUIPMENT INSTALLATION (EIIS SYSTEM IDENTIFICATION CODE KP)

Four NCR's identified discrepant conditions between the installation of fire protection equipment and the current FHA. Installed fire detection systems remained operable, and fire watches were established as required.

A. One NCR identified that some fire sprinkler deflectors, located in two corridors of the Control Building which contain safe shutdown cables, were not installed within 12 inches of the ceiling as required by NFPA 13 and indicated in FHA Table III-1, Item E.3.c. As a result of this condition, the spray/sprinkler system was declared inoperable and in accordance with LCO 3.7.8.2, Action Statement 'a', continuous fire watches were posted. Subsequent evaluation has determined that the sprinkler system is operable since it provides for area coverage only. The existing ionization detection system will detect products of combustion above the sprinkler system. The FHA will be revised to reflect this. No further corrective action is planned.

B. One NCR identified that standpipes serving hose stations in safety-related areas are installed without shut-off valves, pressure reducing devices and flow alarms contrary to FHA Table III-1, Items E.3.a and E.3.d. As installed post indicating valves and controlling gate valves can effectively be used to isolate a hose station and the hose stations are intended to be used by a full-time professional fire brigade, trained in their operation, no additional shut-off valves, pressure reducers or water flow alarms are deemed necessary. As corrective action, the FHA has been revised to describe the existing system configuration.

C. One NCR identified that fuses installed in local fire protection and detection panels for overcurrent protection, are rated greater than 150 percent of the rating of the device intended to be protected, contrary to NFPA 72D as indicated in FHA Table III-1, Item E.1.a. All panels remain operable and electrically supervised for any abnormal condition, which would generate alarm indications locally and in the Control Room. As corrective action, the FHA has been revised to reflect this exception to NFPA 72D.

D. One NCR identified that the Seismic Category I standpipe is not provided for the electrical cable riser shaft at the 63 ft. elevation of the Penetration Building as indicated in FHA Table Q015.16-1, Item 15. As there is no opening in the electrical cable riser shaft at this elevation, fire suppression would be provided indirectly from another elevation. The FHA will be revised to reflect the correct elevation of the above mentioned connection.

X. USE OF COMBUSTIBLE MATERIALS

Three NCR's identified discrepant conditions between the use of combustible materials and FHA Table III-1, Item D.1.a. As installed fire detection and suppression systems are not affected by these discrepancies, fire watches were not required to be posted when the conditions were discovered.

A. One NCR identified that fiberglass is being utilized for thermal insulation on HVAC ducting, and on certain classes of pipe. The use of fiberglass is minimized, and, therefore, will not significantly contribute to the propagation of fires. As corrective action, the FHA has been revised to reflect the limited use of fiberglass for thermal insulation.

B. One NCR identified that vinyl flooring, with a flame spread rating greater than 25, is used in areas of the Auxiliary Control Building. The use of vinyl flooring is restricted to small areas of the control building and does not contribute substantially to the combustibles in the area. As corrective action, the FHA has been revised to reflect the limited use of vinyl flooring in the Auxiliary Control Building.

C. One NCR identified that carpeting installed in the Technical Support Center (TSC) exceeds the criteria of a smoke contribution rating greater than 25. As corrective action, the carpet in the TSC will be replaced with flooring material meeting the requirements outlined in the FHA.

XI. CABLE SEPARATION AND FIRE BARRIERS (EIIS SYSTEM IDENTIFICATION CODE FA)

A. Twenty-nine NCR's identified deficient power, control and communication cables, cable tray separation and fire wraps in nonconformance with FHA Section I.E., I.P. and in Table III-1, Item D.5.d. As 28 of these NCR's identified cables that are not safe shutdown equipment, no fire watches were required in those areas when the conditions were discovered. One NCR identified cables that are required for safe shutdown and fire watches have been established in accordance with Action Statement 'a' of Limiting Condition for Operation 3.7.9. As corrective action, cables or cable trays are being wrapped or separated in accordance with criteria specified in the FHA.

B. One NCR identified that a steel column located in the fire rated barrier between Units 2 and 3 cable spreading rooms is not protected by a fire retardant coating as indicated in FHA Section I.K.1. This condition rendered the fire barrier inoperable. In satisfaction of LCO 3.7.9, Action Statement 'a', hourly fire watches were established in the area since early in 1982 for other work being performed and were maintained for this condition. As corrective action, the steel column has been coated with a fire retardant material in accordance with the FHA.

C. One NCR identified cable routed through a ventilation grill, preventing the operation of the associated fire rated damper, rendering the fire rated barrier inoperable. In accordance with LCO 3.7.9, Action Statement 'a', an hourly fire watch was established upon discovery of this condition. As corrective action, the cables have been removed from the ventilation grill and rerouted through appropriate fire barrier penetrations.

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TEXT (If more space is required, use additional NRC Form 366A's) (17)

XII. FIRE DETECTORS (EIIS SYSTEM IDENTIFICATION CODE IC)

A. One NCR identified that no early warning fire detectors are provided in four decontamination areas as indicated in FHA Table III-1, Item F.15. As there is no safe shutdown equipment located in the areas identified, no fire watches were required when the conditions were discovered. The FHA has been revised and no longer requires the detectors in these areas.

B. One NCR identified that photoelectric smoke detectors were not tested and listed by an organization concerned with product evaluation as required by NFPA 72E as indicated by FHA Table III-1, Item E.1.A. The cause of this condition was the unavailability at the time of procurement of system-compatible photoelectric detectors tested by a product evaluation organization. The unlisted photoelectric smoke detectors will be replaced with U.L. listed ionization smoke detectors. The FHA will be revised to reflect this change.

Southern California Edison Company

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STATION MANAGER

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June 1, 1984

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

Subject: Docket No. 50-361 and 50-362
30-Day Report
Licensee Event Report No. 84-015, Revision 1 (Docket No. 50-361)
San Onofre Nuclear Generating Station, Units 2 and 3

Reference: (1) Letter, J. G. Haynes (SCE) to J. B. Martin (NRC), dated April 5, 1984, "LER 2-84-015"

Reference (1) provided you with the required written report and a copy of the Licensee Event Report (LER) No. 84-015 (Docket No. 50-361) pursuant to 10 CFR 50.36, 50.73, and License Condition 2.G to Facility Operating Licenses NPF-10 and NPF-15 for Units 2 and 3, respectively, for apparent Fire Protection Program discrepancies. We have enclosed LER 84-015, Revision 1, clarifying the corrective actions.

If you require any additional information, please so advise.

Sincerely,

J G Haynes / [illegible]

Enclosure: LER No. 84-015, Revision 1

cc: A. E. Chaffee (USNRC Resident Inspector, Units 1, 2 and 3)
J. P. Stewart (USNRC Resident Inspector, Units 2 and 3)

J. B. Martin (Regional Administrator, NRC Region V)

Institute of Nuclear Power Operations (INPO)

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