



Southern California Edison Company

SAN ONOFRE NUCLEAR GENERATING STATION

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H. E. MORGAN
STATION MANAGER

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September 12, 1988

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

Attention: John B. Martin, Regional Administrator

Dear Sir:

Subject: Docket No. 50-362
License Condition 2.G 14-Day Report
San Onofre Nuclear Generating Station, Unit 3

Reference: Letter, H. E. Morgan (SCE) to J. B. Martin (NRC), Subject: "Docket No. 50-362, Prompt Report, License Condition 2.C.(12)a," dated August 30, 1988.

The referenced letter provided the confirmation of a prompt notification made pursuant to Low Power License Condition 2.G of Facility Operating License NPF-15 for San Onofre Unit 3. The notification advised the NRC of a plant condition which constituted a violation of License Condition 2.C.(12)a, Fire Protection. Specifically, it was determined that both Atmospheric Dump Valves (ADVs) were inoperable for manual operation which is required for certain Appendix R fire scenarios. This submittal provides the required 14-Day Follow-up report.

License Condition 2.C.(12)a requires that SCE maintain in effect and fully implement the Fire Protection Plan as delineated in the Fire Hazards Analysis (FHA). Certain Appendix R fire scenarios require that, as a minimum, one of two Atmospheric Dump Valves (ADVs) be available for manual operation in order to achieve and maintain safe shutdown. A condition was discovered during performance of maintenance activities on 8/26/88 and 8/28/88 for valves 3HV-8421 and 3HV-8419, respectively, wherein the valves exhibited excessive resistance to manual operation. It has been determined that this condition rendered both ADVs inoperable for manual operation. This condition, however, did not affect the capability to operate the valves remotely. Therefore, the safety significance of this condition is limited to the use of the valves during postulated Appendix R fire scenarios.

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An investigation into the cause of the condition noted above included an inspection of 3HV-8421, which revealed that the threads of the aluminum handwheel shaft were cut and the mating threads of the bronze guide had sharp edges. A similar inspection of 3HV-8419 revealed that the handwheel shaft was slightly cut and the guide also had sharp edges. In both of these cases, poor machining of the guides by the vendor resulted in sharp edges that tended to cut the handwheel shaft threads during manual operation. These material deficiencies caused binding between the handwheel shaft and the stationary bronze guide, resulting in additional resistance to rotation.

The bronze guides, which are original equipment for the manual actuator, were replaced during the recently completed refueling outage as part of a design change which lowered the manual operator handwheels to enable operators to more easily access them. We have concluded that the replacement guides were not properly machined so as to completely remove sharp edges and burrs in areas which contact the handwheel shaft.

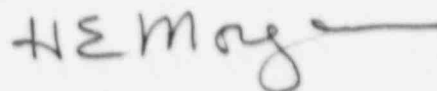
The investigation also identified that the design handwheel torque necessary for manual operation was sufficiently high such that one person with normal strength may not have been able to operate it without a handwheel extension. This fact, in combination with the observed material conditions, resulted in the excessive resistance for these two valves.

Both of the valves have been subsequently repaired. Handwheel extensions have been staged and will be available for operator use so that one operator can easily manually operate the ADV. Handwheel extensions have also been staged for operator use at Unit 2. Also, appropriate Unit 2 and 3 procedures will be revised identifying the possible need to use such extensions. In addition, SCE is considering further design improvements to reduce the handwheel force necessary for manual operation.

Both ADVs on Unit 2 have been manually operated and have not exhibited the increase in required handwheel force indicative of the material deficiencies observed on the Unit 3 valves. Therefore, this License Condition 2.G notification is not required for Unit 2.

If you require any additional information, please so advise.

Sincerely,



cc: F. R. Huey (USNRC Senior Resident Inspector, Units 1, 2 and 3)
NRC Document Control Desk
Institute of Nuclear Power Operations (INPO)

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