

Southern California Edison Company



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May 16, 1980

U. S. Nuclear Regulatory Commission
Office of Inspection and Enforcement
Region V
1990 North California Boulevard
Suite 202, Walnut Creek Plaza
Walnut Creek, California 94596

Attention: Mr. R. H. Engelken, Director

DOCKET No. 50-206
SAN ONOFRE - UNIT 1

Dear Sir:

By letter dated May 7, 1980 we provided prompt notification of damage to an in-core instrumentation thimble during refueling operations. This letter constitutes a follow up report in accordance with the provisions of Section 6.9.2.a(3) of Appendix A to the Provisional Operating License DPR-13.

On May 6, 1980, the reactor upper internals instrumentation package was lowered into place following the completion of the fuel shuffle. A visual examination of the package after lowering revealed that the incore instrumentation guide tube for thimble location D-7 was bent outward, completely clear of the internals package. The bend in the guide tube had crimped the tubing to the extent that it could not be returned to service.

The instrumentation guide tubes contain a retractable flux thimble and a thermocouple which serve as a pressure barrier between the reactor coolant system and containment atmosphere. The sharp bend experienced by the thimble tube could lead to a failure of the tube wall and allow reactor coolant to pass through the tubing into the containment atmosphere.

During the current refueling outage a new secondary source assembly was inserted in core location D-7. Secondary source assemblies do not have provision for passage of incore instrumentation thimbles into the core. Consequently, thimble D-7 was bent outward when it was inserted into the secondary source assembly. A visual examination of the secondary source assembly, flow mixers and fuel assemblies revealed no damage.

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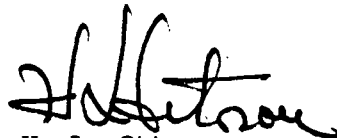
The upper internals package was removed from the vessel and installed on the internals support stand. The guide tube was cut and removed from the internals package. Subsequent inspection with an underwater camera verified that there was no damage elsewhere on the package nor any loose pieces.

As a result of removing the damaged instrumentation the severed ends of the tubing will now be open to reactor coolant system pressure. To prevent leakage to the containment atmosphere the thimble tube and thermocouple junction will be capped and seal welded. Leak tightness of the seal welds will be verified prior to operation.

To prevent a recurrence of this event future secondary source assemblies will only be installed in core locations which have previously contained secondary sources. The seal welded caps will replace the damaged tubing as the reactor coolant pressure boundary. The loss of in-core instrumentation at location D-7 will not affect core monitoring as the remaining instrument locations are sufficient to achieve accurate core mapping. There was no undue risk to the health and safety of the general public as a result of this incident.

Should you have any questions regarding this matter, please contact me.

Sincerely,



H. L. Ottoson
Manager of Nuclear Operations

Attachment: Licensee Event Report 80-018

cc: Director, Office of Inspection and Enforcement (30)
Director, Office of Management Information & Program Control (3)
Director, Nuclear Safety Analysis Center. (1)